

# Increasing Access to Effective Teachers for All Children in California:

*Research Review and Policy  
Recommendations*

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## About the Centers



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The National Center for Urban School Transformation (NCUST) is a research and support center within San Diego State University's College of Education. The Center's mission is to help school districts and their partners transform urban schools into places where all students achieve academic proficiency, evidence a love of learning, and graduate well prepared to succeed in post-secondary education, the workplace, and their communities.

NCUST started in 2005 with a generous gift from QUALCOMM, Inc. Joseph F. Johnson, Jr. was hired to serve as the Center's first executive director. Immediately, the new Center established the National Excellence in Urban Education Award Program as a strategy to identify, celebrate and study some of the nation's most successful urban schools. Additional information about NCUST is available at <http://go.sdsu.edu/education/ncust/Default.aspx>.



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The Center for Education Policy and Law (CEPAL), a research entity operating under the auspices of the School of Leadership and Education Sciences and the School of Law at the University of San Diego.

Established by a grant from the William D. Lynch Foundation in 2007, CEPAL's mission is to foster better linkage between educational research, policymaking, and practice. To this end, CEPAL undertakes empirical and legal research on educational policy issues, enhances communication between education leaders and state-level policymakers, and facilitates understanding among USD law students and education graduate students about the policymaking process through courses, internships, and research opportunities. Additional information about CEPAL is available at [www.sandiego.edu/cepal](http://www.sandiego.edu/cepal).

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## EXECUTIVE SUMMARY

The responsibility for the education of California's children lies squarely with state policymakers. The enormity of this charge cannot be overstated. California's public schools serve over six million students from Pre-Kindergarten through 12<sup>th</sup> grade. Together, they comprise 13% of the nation's public school students – the largest proportion of any state. For many of these students, most of whom are children of color from low-income families, public education constitutes the only avenue to economic well-being and upward mobility. For California, the education of these students establishes the groundwork for future success in all realms of endeavor.

The intent of this study is threefold. First, it presents what research in the field of education has demonstrated to date about the role of teachers in providing a constitutionally guaranteed quality education. Second, it explores the implications of the research findings for state policymakers who are committed to educational equity. Specifically, it identifies current policies and practices that contravene the research. Finally, it proffers a set of recommendations for state education policymakers.

The California Constitution provides all students in its public schools the fundamental right to equal access to quality education. Although the purpose of education might be broadly defined to encompass student learning across a range of social, behavioral, and affective outcomes, the cognitive development of students has always been at its core.<sup>1</sup> Efforts to understand the causes of student achievement growth have yielded a substantial body of empirical evidence that identifies teachers as the most important in-school predictors of student achievement.<sup>2</sup> Studies show that the effects of teachers account for considerable variation in student achievement across classrooms.<sup>3</sup> In other words, some teachers are more successful than others in increasing student achievement. Variability in instructional effectiveness between classrooms produces significant educational advantages for those students who have access to high-quality instruction and disadvantages for those who do not.<sup>4</sup>

Researchers maintain that teacher effectiveness fluctuates across time, student groups, subjects, and school contexts, among other variables.<sup>5</sup> Studies designed to identify the determinants of teacher effectiveness, therefore, seek to shed light on those characteristics and behaviors that are most consistently associated with strong student outcomes. Much of the research to date substantiates the fact that teachers who are deemed effective must demonstrate a breadth and depth of competencies that extend far beyond the accumulation of credentials, degrees, or years on the job. On a daily basis, effective teachers must cultivate learning

environments that offer both structure and flexibility; combine challenge with support; and foster independence and interdependence.

Providing administrators with adequate time and sufficient training to observe, evaluate, and support probationary teachers effectively increases accountability among all key stakeholders — teachers, principals and other administrators.<sup>6</sup> Specifically, it ensures that administrators in schools and districts do not dismiss potentially effective teachers prematurely and that ineffective teachers are not retained simply due to pressure for a swift determination of effectiveness. Experts stress that effective evaluation systems must simultaneously identify teachers who might benefit from additional professional development and recognize those whose expertise might be tapped to support others. Evaluation systems that are truly comprehensive include support for supervision and readily available professional learning for those who need it.

Ideally, strong teacher evaluation systems identify ineffective teachers who then receive training and support to build capacity. In those instances, however, in which teacher effectiveness does not improve despite these efforts, a school district may pursue dismissal. Both the expense and amount of time required to complete the dismissal process discourage many districts from pursuing dismissal as a strategy for dealing with ineffective teachers. If the length and complexity of California's dismissal process result in ineffective teachers' remaining in classrooms, the employment rights of adults have come at the expense of the rights of California's children to a quality education. The situation is exacerbated by evidence that schools attended by poor and minority students are more likely to employ ineffective teachers in the first place than those attended by children from more affluent families.<sup>7</sup>

In addition to dismissing teachers for cause, districts are often forced to lay off teachers for reasons unrelated to teacher performance. For example, during difficult economic times, a school district may lay off certificated employees due to budget constraints. In all cases, it is a violation of the Education Code for a school district to lay off a permanent teacher while retaining a probationary or less experienced teacher to render services that the permanent teacher can competently render.<sup>i</sup> Under this policy, also referred to as “Last In-First Out” (LIFO), the newest teachers in a district are the first to experience layoffs when positions are eliminated. Although the simplicity and transparency of seniority-based layoffs make them easier to implement, it is difficult to argue that such policies are in the best interest of students. Without question, layoff decisions that are based solely on teacher seniority will hit hardest those schools with the greatest number of junior teachers. Once again, researchers have found that children of color and those from

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<sup>i</sup> Cal. Educ. Code § 44955(b).

low-income homes will be disproportionately affected because their schools tend to have the greatest number of new teachers.<sup>8</sup>

## **Research-Guided Recommendations for Stewards of Education in California**

### **The Route to Tenure in California Must Be Longer**

In order to avoid prematurely denying tenure to potentially effective teachers or granting permanent status to those who are not truly effective, the probationary period for new teachers should be extended to five years and based upon at least four annual evaluations.

### **Tenure Benefits Should Continue to Be Earned Through Demonstrations of Teacher Effectiveness**

Tenured teachers who receive unsatisfactory performance evaluations for two consecutive years should revert to probationary status and receive professional development and mentoring to help them meet standards of effectiveness.

### **California Should Require that All Districts Evaluate Teachers on an Annual Basis Using Systems That Reflect Best Practices**

Given the inextricable link between teacher effectiveness and a quality education, teachers, like employees in many other professions, should have annual valid and reliable evaluations in order to ensure their continued effectiveness and ability to meet every-changing expectations.

### **Procedures for Dismissing Ineffective Teachers Must Be Streamlined to Reduce Time and Cost So That Students Are Not Subjected to Ineffective Teachers**

The state should require a timely mechanism for addressing teacher ineffectiveness so that students are not repeatedly subjected to ineffective teachers.

### **In Addition To Seniority, Multiple Criteria Should Be Utilized In Layoff Decisions to Minimize the Impact of Budget Crises on Students' Access to Effective Teachers**

Layoff policies should consider teacher effectiveness as a primary criterion in making reduction-in-force decisions.

## INTRODUCTION

The responsibility for the education of California's children lies squarely with state policymakers. The enormity of this charge cannot be overstated. California's public schools serve over 6 million students from Pre-Kindergarten through 12<sup>th</sup> grade. Together, they comprise 13% of the nation's public school students – the largest proportion of any state. For many of these students, most of whom are children of color from low-income families, public education constitutes the only avenue to economic well-being and upward mobility. For California, the education of these students establishes the groundwork for future success in all realms of endeavor.

California's commitment to every public school child includes constitutionally guaranteed access to a quality education. Indeed, if one accepts the premise that the primary goal of a quality education is student learning, it follows that each and every child who attends public school in California must be afforded an equal opportunity to learn. Furthermore, if that opportunity to learn is largely dependent upon the presence of certain conditions during the school day, then *all* students in *all* schools must have equal access to the conditions or factors that influence learning.

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The intent of this study is threefold. First, it presents what research in the field of education has demonstrated to date about the role of teachers in providing such a constitutionally guaranteed quality education. Second, it explores the implications of the research findings for state policymakers who are committed to educational equity. Specifically, it identifies current policies and practices that contravene the research. Finally, it proffers a set of recommendations for state education policymakers.

At the heart of the issue is effective teaching – a complex practice that defies simplistic definition or measurement and fuels a plethora of important questions: At what point in a young teacher's career is there sufficient evidence to indicate effectiveness and, thus, worthiness of tenure? Given the complexity of teaching, what is the most reliable way to determine if a teacher is, in fact, effective? How swiftly should those determinations be made and acted upon? When budget crises require reductions in the teacher workforce, what criteria should be used to decide which teachers are laid off and which are not? And, above all, how do these decisions affect differentially the best interests of students? Many of these same questions have recently come before the state's judicial system and similarly beckon its legislative branch for thoughtful answers. The nature of the response is

inextricably linked to California's commitment to its children and, by extension, to its future prosperity.

This report is structured using a series of statements as section headings. Each statement is supported by a brief discussion of the relevant research. Statements build upon each other in a logical fashion such that the conclusions supported by one statement inform subsequent ones. Together, they are designed to provide a logical framework for leadership in addressing the important issue of ensuring that all children receive the quality education to which they are legally and equitably entitled.

# CALIFORNIA STUDENTS HAVE A CONSTITUTIONAL RIGHT TO A QUALITY EDUCATION

The California Constitution provides all students in its public schools the fundamental right to equal access to quality education. According to Article IX, Section 1 of the California Constitution, education is “essential to the preservation of the rights and liberties of the people.” Subsequent case law has affirmed this principle. In 1971, the California Supreme Court recognized in *Serrano v. Priest I*<sup>ii</sup> that education is a major determining factor of an individual’s chances for economic and social success and ruled that education is a “fundamental right” under the United States Constitution and the California Constitution.<sup>iii</sup> In 1976, the California Supreme Court in *Serrano v. Priest II*<sup>iv</sup> affirmed its *Serrano I* decision. This time it relied primarily on the equal protection clause added to the California Constitution two years earlier,<sup>v</sup> which ruled that California schoolchildren have a constitutional right to “substantially equal opportunities for learning.” The issue of students’ rights to basic educational equity arose again in 1992 in *Butt v. State of California*.<sup>vi</sup> The California Supreme Court ruled that “the State itself has broad responsibility to ensure basic educational equality” and that, in this instance, a district’s decision to close schools early would deprive students of their constitutional right to basic education equality with other public school students in the state.<sup>vii</sup>

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Whereas previous cases addressed the issue of equality of educational opportunity, more recent cases pertain to the quality of the educational experience. These cases focus on the disparate impact that the hiring and firing practices of teachers have on low-income students. In *Reed v. State of California*, which began in 2010, a trial court approved a class-action settlement preventing seniority-based layoffs at up to 45 schools in the Los Angeles Unified School District because the “last-in, first-out” system of hiring and firing teachers disproportionately impacted schools serving high concentrations of low-income and minority students.<sup>viii</sup> Although an appellate

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<sup>ii</sup> 5 Cal. 3d 584 (1971).

<sup>iii</sup> *Id.* at 605, 608-09.

<sup>iv</sup> *Serrano v. Priest*, 18 Cal. 3d 728 (1976).

<sup>v</sup> *Id.* at 776.

<sup>vi</sup> 4 Cal. 4th 668 (1992).

<sup>vii</sup> *Id.* at 685.

<sup>viii</sup> Approval of Settlement Order, *Reed v. State of California*, 2011 WL 10893745 at 1.

court later vacated the ruling and remanded the case to the trial court for further proceedings, the case was eventually settled in 2014. All parties agreed to invest in the training and support of teachers at 37 schools involved in the litigation rather than focus on seniority-based layoffs. In effect, the special training is intended to enable teachers to qualify for the exemption in the California Education Code that permits those teachers who teach a specific course or course of study to avoid seniority-based layoffs.<sup>ix</sup> Also in 2014, in *Vergara v. State of California*,<sup>x</sup> a California trial court judge sided with student plaintiffs by holding five sections<sup>xi</sup> of the California Education Code, all pertaining to the hiring and firing practices of teachers, unconstitutional.<sup>xii</sup> The court, finding the challenged statutes disproportionately affected poor and/or minority students, applied strict scrutiny analysis and found all five statutes unconstitutional under the equal protection clause of the Constitution of California.<sup>xiii</sup> That decision is now on appeal.

In combination, both the California Constitution and case law reinforce the need for policymakers to consider carefully those instances in which existing policies and practices jeopardize the education to which public school children are rightfully entitled. In addition to the legal analysis, educational research offers policymakers another lens through which to evaluate current policies and practices. This compilation of research findings is intended to equip those charged with the formidable responsibility of educating future Californians with a deeper understanding of what matters most in ensuring every child the benefits of a quality education.

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<sup>ix</sup> Cal. Educ. Code § 44955 (d)(1).

<sup>x</sup> No. BC484642, 2014 WL 6478415 at 1 (Cal. Super. Aug. 27, 2014).

<sup>xi</sup> Cal. Educ. Code §§ 44929.21(b), 44934, 44938(b)(1)-(2), 44944, 44955.

<sup>xii</sup> No. BC484642, 2014 WL 6478415 at 5-7.

<sup>xiii</sup> *Id.* at 7.

## STUDENT ACADEMIC LEARNING IS THE PRIMARY OUTCOME OF A QUALITY EDUCATION

Although the purpose of education might be broadly defined to encompass student learning across a range of social, behavioral, and affective outcomes, the cognitive development of students has always been at its core.<sup>9</sup> Thus, while schools (and teachers) often produce more than academic outcomes, student achievement in such core subjects as math and reading has often been the focal point of both educational accountability systems and research on educational effectiveness.

Despite the controversial history of standardized tests, education practitioners and researchers have long relied upon them as barometers of student academic learning.<sup>10</sup> Over the years, California's educational accountability system has used performance on various iterations of standardized tests to gauge student learning. In 1961, California legislation established the first statewide testing program in reading, writing, and math at grades five, eight, and ten. By 1995, state law called for content and performance standards and authorized Assessment of Applied Academic Skills in reading, writing, mathematics, history and science at multiple grades. Most recently, on January 1, 2014, California Education Code Section 60640 established the California Assessment of Student Progress and Performance (CAASPP) System of assessments that links student performance to the Common Core State Standards approved by 42 states.

For researchers, test score data provide objective, quantifiable measures of educational outcomes across large samples of students, teachers, and schools. Studies that link test scores to such long-term positive outcomes for students as college attendance and earnings have further reinforced their utility as promising indicators of student learning.<sup>11</sup> Additionally, recent research produced through the Measuring Effectiveness Project found that students whose teachers were successful in getting them to perform at high levels on state tests also performed at higher levels on more challenging assessments in math and English.<sup>12</sup>

This report is grounded in research that considers students' academic achievement as the primary outcome of a quality education. Test scores and other quantitative measures of student performance figure most prominently in the literature. With that said, social-emotional learning outcomes are also important; in fact they are inextricably linked to academic outcomes. Without one, it is unlikely that the other will occur.<sup>13</sup>

This report is grounded in research that considers students' academic achievement as the primary outcome of a quality education.

## TEACHERS ARE THE MOST IMPORTANT IN-SCHOOL PREDICTORS OF STUDENT LEARNING

Efforts to understand the causes of student achievement growth have yielded a substantial body of empirical evidence that identifies teachers as the most important in-school predictors of student achievement.<sup>14</sup> Barber and Mourshed (2007)<sup>15</sup> studied 25 of the world’s school systems to determine why some consistently perform better and improve faster than others. They concluded that the quality of an education system cannot exceed the quality of its teachers.

Researchers have also determined teacher effects on student learning to be both cumulative and enduring, meaning that the performance of children who have had ineffective teachers continues to lag for several years after children leave the classrooms of such teachers. Additionally, the greater number of ineffective teachers children have, the farther behind they remain in subsequent years.<sup>16</sup> Some of this research has utilized value-added techniques,<sup>xiv</sup> which have been questioned as to their reliability as measures of individual teacher effectiveness.<sup>17</sup> Nevertheless, the majority of researchers agree that value-added models are useful in the aggregate for identifying effective teaching practices.<sup>18</sup> Finally, researchers have found that teacher effects are larger in schools with high numbers of economically disadvantaged students, indicating that teacher quality is most important for children from low-income communities.<sup>19</sup> It is worthy of note that although these studies demonstrate the magnitude of teacher impact on student achievement in the aggregate, they do not purport to measure the impact or effectiveness of individual teachers.

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<sup>xiv</sup> **Value-added measures** are used to estimate or quantify how much of a positive (or negative) effect individual teachers have on student learning during the course of a given school year. To produce the estimates, value-added measures typically use sophisticated statistical algorithms and standardized-test results, combined with other information about students, to determine a “value-added score” for a teacher (from edglossary.org).

## EFFECTIVE TEACHERS INCREASE STUDENT LEARNING

Research has generally defined teacher effectiveness in relation to student academic outcomes and those behaviors and practices that improve these outcomes. Instructional effectiveness is apparent when substantial and observable evidence exists that student learning has occurred.<sup>20</sup> Scholars have pushed for broader definitions of effective teaching that encompass teachers' non-instructional roles and students' non-academic outcomes.<sup>21</sup> However, despite some movement in this direction, student achievement on challenging standardized tests that are aligned to the taught curriculum still offers an objective source of evidence about effective teaching practice.

Studies show that the effects of teachers account for considerable variation in student achievement across classrooms.<sup>22</sup> In other words, some teachers are more successful than others in increasing student achievement. Variability in instructional effectiveness between classrooms produces significant educational advantages for those students who have access to high-quality instruction and disadvantages for those who do not.<sup>23</sup> Using value-added measures, researchers have shown that the performance difference between students assigned a top-quartile teacher and those assigned a bottom-quartile teacher was associated with a seven-percentile gain in reading and a six-percentile gain in math.<sup>24</sup> Researchers have also noted differential impacts of teachers on student achievement using observations of teachers' instructional practices as indicators of effectiveness.<sup>25</sup> Not surprisingly, it is the variability in teacher effects that has fueled considerable research focused on understanding how teachers differ in their influence on student achievement and which qualities and behaviors account for the greatest positive impact.

In other words, some teachers are more successful than others in increasing student achievement.

## A COMPLEX SKILL SET MAKES SOME TEACHERS MORE EFFECTIVE THAN OTHERS

Researchers make a distinction between teacher quality and teaching quality. The former generally refers to the inputs teachers bring to the profession (degrees, certification, years of experience, beliefs, and self-efficacy, among others) and the latter encompasses what teachers do (their teaching practices) in the classroom. Studies have examined the impact of both teacher quality and teaching quality on student outcomes in an attempt to measure teacher effectiveness.<sup>26</sup> Researchers maintain that teacher effectiveness fluctuates across time, student groups, subjects, and school contexts, among other variables.<sup>27</sup> Studies designed to identify the determinants of teacher effectiveness, therefore, seek to shed light on those characteristics and behaviors that are most consistently associated with strong student outcomes.

The vast majority of the empirical work on teacher quality has relied upon a variety of observable teacher qualifications to measure teacher effectiveness, including coursework completed, graduate degrees earned, college majors pursued, teacher preparation programs completed, certification status, and years of experience.<sup>28</sup> The findings suggest that, although these qualifications may be necessary for teaching, they are not sufficient for effective teaching. In fact, many of these qualities are only weakly related to student performance.

Research does, however, associate strong student outcomes with a complex set of teacher practices.

### **Credential status is not strongly related to teachers' subsequent effectiveness**

Except for a positive correlation between teacher certification in math and student performance in high school, the findings do not support a strong link between emergency, alternate-route, and subject-specific certification and student performance.<sup>29</sup> The lack of significant findings is likely due to the large variability in the quality of teacher credential programs.

### **Graduate coursework may not make teachers more effective**

Studies on the impact of teacher graduate coursework (either in pedagogy or specific content areas) have not identified strong relationships in areas other than science and math – and even these findings depend upon the grade levels being taught.<sup>30</sup>

### **Research has also shown that seniority, or years of service, is not a barometer of effectiveness**

In fact, the most significant growth in teacher impact on student learning occurs during the first three to five years of teaching, with impact leveling off around year four for most teachers.<sup>31</sup> In its report *Gathering Feedback for Teaching*, the Measures of Effective Teaching Project showed that other measures of teacher impact — including observation scores, student feedback, and achievement gains — were more predictive of teachers' success (across several student outcomes) than years of experience and Master's degrees.<sup>32</sup>

### **Effective teaching requires a complex set of skills**

Research does, however, associate strong student outcomes with a complex set of teacher practices. Of particular note is *Visible Learning*,<sup>33</sup> John Hattie's prodigious examination of over 800 meta-analyses of 50,000 research studies relating to student achievement. Hattie used 'effect sizes' to determine the greatest influences on student learning.<sup>34</sup> The simple definition of effect size is the measurable impact or result of an intervention. Hattie confirmed earlier findings that the most powerful in-school impact (or effect on student learning) comes from teachers.<sup>35</sup> Specifically, the most powerful effects resulted from what teachers do in the classroom. Many teacher-driven interventions produced effect-sizes on student learning that were well above the average effect size of  $d=.40$ .<sup>xv</sup> Hattie's research ranks the following specific teacher practices according to their effect on student achievement:<sup>xvi</sup>

- working together to evaluate their impact (0.93);
- moving from what students know now toward explicit success criteria (0.77);
- building trust and welcoming errors as opportunities to learn (0.72);
- getting maximum feedback from others about their effect (0.72);
- getting the proportions of surface to deep learning correct (0.71);

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<sup>xv</sup>An effect-size of 1.0 is equivalent to advancing a student's achievement by two to three years or improving the rate of learning by 50%. Hattie used  $d=.40$  to represent the typical effect of all possible influences in education. He then averaged the effects of research studies focused on similar innovations, (e.g., assigning homework) and ranked those effects to show which interventions have the greatest influence on student achievement.

<sup>xvi</sup>Effect sizes can be converted into percentiles. An effect size of .93 corresponds to a value of 82%, which means that the average student (assuming a normal distribution of students) in a group of students whose teachers engaged in the practice of "working with others to evaluate their impact" would score higher than 82% of students whose teachers did not engage in this practice.

- using the Goldilocks principles of challenge (the challenges must be not too big, not too small but just right); and
- using deliberate practice to attain these challenges (0.60).

Marzano also used decades of research associating specific teaching practices with positive impacts on student outcomes to identify a complex set of behaviors and techniques that constitute effective teaching.<sup>36</sup> In later research, Hattie elucidated powerfully the practices of highly effective teachers with particular emphasis on teachers' abilities to assess the impact they are having on student learning.<sup>37</sup>

*It is simple: to be able to make speedy and correct decisions on a moment-by-moment basis, to be able to know 'where to next' for twenty to forty students almost simultaneously, to know how to reliably diagnose and implement multiple teaching interventions and how to evaluate impact of teaching on learning requires high levels of expertise, as does ensuring that these decisions have common meaning across teachers and schools.<sup>38</sup>*

The notion that effective teaching is complex is not new.<sup>39</sup> According to Ferguson, it involves a delicate balancing act among three critical components in the instructional tripod: content, pedagogy, and relationships.<sup>40</sup> A single weak leg in the tripod causes its collapse, while three strong legs yield student learning at high levels. Effective teaching is a collectively negotiated highly complex activity in which the teacher operates within a constellation of variables that jointly shape teaching practice.<sup>41</sup> It requires the integration of two complex and vast domains of knowledge: subject matter and knowledge of organization and management of classrooms.<sup>42</sup>

In identifying what teachers should learn and be able to do, scholars Darling-Hammond and Bransford maintained that teachers require not only deep content knowledge but also an understanding of the way in which children learn developmentally and an ability to make connections between the curriculum and students' prior experience and knowledge.<sup>43</sup> Teachers also need to be able to design and deliver instruction with appropriate scaffolds in order to support second-language learners and students with special needs. They must continually assess the impact of their teaching and modify instruction accordingly when students struggle. Finally, teachers must work collaboratively with key stakeholders, including their colleagues and the families of their students.

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Many of these same competencies are captured in the *California Standards for the Teaching Profession*.<sup>44</sup> These six standards expect teachers to engage and support all students in learning; create and maintain effective environments for student learning; understand and organize subject matter for student learning; plan instruction and design learning experiences for student learning; assess student learning; and develop as professional educators.

A close examination of several research-based teacher observation instruments provides deeper insight into the nature of what is deemed to be effective teaching.<sup>45</sup> Each framework defines a clear set of expected teaching competencies and specific examples of what these competencies look like in practice. Each protocol also includes multiple domains (or elements of instruction) and sub-units within these larger categories. *The Framework for Teaching*, one of the most widely used observation instruments, requires teachers to show proficiency in 22 components. Teachers are assessed according to multiple performance levels. Each instrument reflects the broad range of instructional practices that comprise effective teaching and further substantiates the complexity of effective teaching.

On a daily basis, effective teachers must cultivate learning environments that offer both structure and flexibility; combine challenge with support; and foster independence and interdependence.

Finally, research showing the positive impact of teachers who have earned National Board Certification on student performance reinforces the notion of the complexity of teaching. National Board Certification engages teachers who have been in the classroom at least three years in rigorous analysis of their work. Among the skills that teachers must demonstrate in order to earn certification are: managing and monitoring student learning, thinking systematically about their practice, learning from experience, and participating in learning communities. In its comprehensive meta-analysis of 11 studies, the National Research Council concluded that National Board Certification is associated with more effective teachers based on student achievement.<sup>46</sup>

Thus, much of the research to date substantiates the fact that teachers who are deemed effective must demonstrate a breadth and depth of competencies that extend far beyond the accumulation of credentials, degrees, or years on the job. On a daily basis, effective teachers must cultivate learning environments that offer both structure and flexibility; combine challenge with support; and foster independence and interdependence. Marzano's characterization of teaching as part art and part science is particularly apt.<sup>47</sup> Truly effective teachers artfully employ the practices that scientific research has shown generally to have the greatest impact on student learning in ways that respond specifically and creatively to ever-changing needs of their individual students. Above all, effective teachers reflect upon, and refine continuously, their impact on student learning.

## IDENTIFYING AND SUPPORTING EFFECTIVE TEACHING REQUIRES TIMELY AND MEANINGFUL EVALUATION PROCESSES

The fact that effective teaching is a highly complex, dynamic, and largely contextual phenomenon gives rise to two questions. First, how long should new teachers work full-time in classrooms and schools in order to demonstrate their effectiveness (or potential for effectiveness) in this highly complex practice before they are granted or denied permanent employment status? Second, if effective teaching is so highly complex, how sophisticated do evaluation systems for measuring that effectiveness need to be in order to adequately capture the true complexity of the practice? A brief foray into California's Education Code reveals the answers currently offered by the state of California.

According to the California Education Code, all new teachers must serve a probationary period prior to obtaining permanent employee status also known as tenure.<sup>xvii</sup> This period is intended to allow school districts to evaluate and make informed decisions regarding the promotion of teachers' to permanent employee status. According to the Stull Act,<sup>xviii</sup> probationary teachers must be evaluated at least once every school year according to pre-established criteria similar to those used for tenured teachers.<sup>48</sup>

A distinguishing feature of probationary status is non-reelection, which permits a school district to notify a teacher in writing that the teacher's services will not continue into the following school year.<sup>xix</sup> Upon receipt of the written notice, the Education Code offers the probationary teacher no recourse.<sup>xx</sup> This outcome stands in stark contrast to that of teachers who are reelected. Those teachers promoted to permanent status are entitled to continued employment with the school district until retirement, resignation, death, dismissal, or layoff. A school district may dismiss permanent teachers only on grounds specified in the Education Code and must adhere to very detailed due process procedures triggered by the lifetime employment expectations that tenure provides to California school district teachers.

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<sup>xvii</sup> Cal. Educ. Code § 44929.21(b).

<sup>xviii</sup> The Stull Act can be found in Cal. Educ. Code Education Code § 44660 and following sections. Originally signed into law in 1971 and amended as recent as 2005, the Stull Act is the primary California state legislation mandating and covering the process by which school districts evaluate and assess performance of teachers.

<sup>xix</sup> Cal. Educ. Code § 44929.21(b).

<sup>xx</sup> *Id.*

## Decisions about the Potential Long-Term Effectiveness of New Teachers are Currently Made Very Early in Their Growth Process

In 1983, California Senate Bill 813 reduced the number of years that it took for California teachers to earn tenure from three years to two years.<sup>xxi</sup> Additionally, it gave districts the right to dismiss teachers during their first two years without cause.<sup>49</sup> In 2005, efforts in California to reform tenure were included in California Proposition 74. This initiative, which was defeated, called for extending the probationary period from two to five years. Thus in California, during a teacher's second year as a probationary employee, the governing school board must notify the teacher on or before March 15 of its decision to reelect the teacher to the position for the following school year.<sup>xxii</sup>

This truncated probationary period – effectively 18 months on the job – expires during the period in which researchers have found teachers experience their greatest growth in effectiveness.

This truncated probationary period – effectively 18 months on the job – expires during the period in which researchers have found teachers experience their greatest growth in effectiveness. The steepest trajectory of growth in teacher effectiveness generally occurs during the first two to five years of full-time classroom teaching.<sup>50</sup> Determinations about the potential for long-term teacher effectiveness are thus being made just as many teachers are rising on the learning curve, adapting to the classroom context and the constellation of variables that shape their practice.

The process of determining the fate of probationary teachers is also well under way before many new teachers have completed their induction programs and earned their Clear Credentials.<sup>51</sup> Such induction programs as California's two-year Beginning Teacher Support and Assessment (BTSA) program are designed to: 1) provide support and professional development for teachers in their first two years of teaching, 2) strengthen the foundation for effective teaching, and 3) increase the likelihood that new teachers will remain in the profession.<sup>52</sup> Ingersoll and Strong found evidence that, although not all induction programs have the same level of success, teachers who were provided induction support had higher levels of commitment to teaching and increased retention rates, were more likely to use effective teaching strategies and pedagogical methods, and had higher levels of student achievement.<sup>53</sup> One of the important characteristics of successful induction programs included support for a longer period of time, i.e., two years appears to be better than a single year.

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<sup>xxi</sup> A probationary teacher who has served for at least seventy-five percent of a school year is deemed to have served a complete school year (Cal. Educ. Code § 44908).

<sup>xxii</sup> Cal. Educ. Code § 44929.21(b).

According to the results of a 2014 survey administered on behalf of Teach Plus, "teachers highly value tenure but strongly support making it a more performance-based, professional benchmark."<sup>54</sup> Nearly three-quarters of the teachers surveyed in California believed that a period of 18 months is not enough time for administrators to decide whether or not a teacher should be granted tenure. Moreover, both new and veteran teachers agreed that teachers should have at least five years of classroom experience before an administrator makes a decision about tenure.<sup>55</sup> Qualitative research studies support the notion that many teachers require three years or more to overcome all of the challenges they face early in their teaching careers.<sup>56</sup>

Nearly three-quarters of the teachers surveyed in California believed that a period of 18 months is not enough time for administrators to decide whether or not a teacher should be granted tenure.

California education experts also concur with teachers' concerns about limits on administrators' time and expertise to conduct thorough evaluations.<sup>57</sup> According to a report of the Task Force on Educator Excellence headed by the California State Superintendent of Public Instruction, principals rarely have sufficient time or expertise to evaluate teachers and address the needs of those requiring intensive instructional support.<sup>58</sup> Although this statement refers to principals' evaluations of all teachers, it identifies a problem that likely affects probationary teachers most dramatically given the shortened timeline for both their evaluations and the provision of opportunities for meaningful support.

Providing administrators with adequate time and sufficient training to observe, evaluate, and support probationary teachers effectively increases accountability among all key stakeholders — teachers, principals, and other administrators.<sup>59</sup> Specifically, it ensures that administrators in schools and districts do not dismiss potentially effective teachers prematurely and that ineffective teachers are not retained simply due to pressure for a swift determination of effectiveness. Given the preeminent role that effective teachers play in advancing student learning, particularly for those students who come from low-income homes and communities, increasing the tenure timeline holds all stakeholders more directly accountable for ensuring that children have access to a quality education. In *Vergara v. State of California*, several state defendants' experts agreed that a two-year probationary period is insufficient to make tenure decisions that mutually benefit of students and teachers.

### **California is Among the Few States with the Shortest Probationary Period for New teachers**

California is one of four states to grant probationary teachers permanent status after two years or less of full-time teaching. Mississippi grants permanent status after one year. California, South Carolina, and Vermont grant permanent status after

two years. Additionally, the District of Columbia and North Dakota have no tenure policy. On the other hand, 31 states grant tenure after three years. Further still, five states grant tenure after four years; six states grant tenure after five years; and three states have eliminated tenure altogether.<sup>60</sup>

Despite differences in teacher tenure policies across states and localities, researchers have acknowledged that little is known about how these variation actually affect teacher quality.<sup>61</sup> Massachusetts, a state with historically high academic standards and a relatively strong record of student achievement, has a probationary period of three years before a decision is made to offer tenure to a teacher.<sup>62</sup> In New York, efforts to reform teacher tenure in 2009 included an option to extend the probationary status for teachers who had yet to meet the state teacher performance standards. Principals were also required to justify their decisions in those cases in which the data did not support their decisions to grant or deny tenure.<sup>63</sup> According to researchers, these reforms precipitated a nearly 40-point drop in the percentage of teachers who were approved for tenure by 2013, as many teachers had their probationary statuses extended. Those teachers who received extensions of their probationary status had lower ratings on principal evaluations, lower value-added scores based on student test scores, and lower teacher attendance than those who were granted tenure. These teachers also ultimately ended up leaving teaching at higher rates than those who had received tenure initially.<sup>64</sup>

### **Other States Link Tenure to Teacher Performance**

Relative to the other 49 states, California has one of the most teacher-protective tenure laws in the country and has largely remained on the sidelines in the national movement toward tenure reform. For example, in California, once granted, tenure status is no longer linked to teacher performance evaluations.

Indiana's "Putting Students First"<sup>xxiii</sup> tenure bill, signed into law in 2011, follows the nationwide trend of using tenure reform to promote teacher accountability by transitioning to the popular four-category rating system to assess teacher performance. The four categories include "effective," "highly effective," "ineffective," and "highly ineffective".<sup>65</sup> Additionally, Indiana teachers face dismissal if they receive two consecutive evaluations of "ineffective," regardless of their tenure status.<sup>xxiv</sup>

Since 2010, a majority of states have passed sweeping tenure reform laws that share many similarities with the Indiana law.<sup>66</sup> For example, in Nevada and Tennessee, teachers revert to probationary status upon two consecutive years of "ineffective"

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<sup>xxiii</sup> P.L. 90-2011(codified at Ind. Code Ann. § 20-28-11.5-4 (2015)).

<sup>xxiv</sup> Ind. Code Ann. § 20-28-6-7.5(d)(1).

performance evaluations.<sup>xxv</sup> Idaho and Florida have eliminated tenure altogether, replacing it with one-to-two-year contracts. A thorough search of the literature, however, found no evidence that tenure *by itself* promotes or hinders teacher effectiveness. In fact, some researchers and teachers believe that tenure protects teachers from being fired for such reasons as age, race, or political beliefs, and ensures academic freedom. They also maintain that tenure helps to attract high-quality candidates to the teaching profession.<sup>67</sup>

Although they differ substantially in their details, the spirit of the tenure reform laws in many states reflects research findings that effective teaching is essential to the provision of a quality education. Unfortunately, a paucity of academically rigorous research establishing a link between specific tenure reform efforts and teacher effectiveness precludes definitive conclusions.

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<sup>xxv</sup> NEV. REV. STAT. ANN. § 391.3129 (teachers loses tenure if receives two consecutive evaluations of “minimally effective,” “ineffective,” or a combination thereof); TENN. CODE ANN. § 49-5-504(e) (teachers loses tenure if receives two consecutive evaluations of “below expectations,” “significantly below expectations,” or a combination thereof).

## MEANINGFUL EVALUATION SYSTEMS ARE SUFFICIENTLY ROBUST TO CAPTURE THE TRUE COMPLEXITY OF EFFECTIVE TEACHING

The ultimate purpose of teacher evaluation is to measure and improve the effectiveness of all teachers so that a wide range of students can learn.<sup>68</sup> Experts stress that effective evaluation systems must, therefore, simultaneously identify teachers who might benefit from additional professional development and recognize those whose expertise might be tapped to support others. Evaluation systems that are truly comprehensive include support for supervision and readily available professional learning for those who need it.

In California, evaluations inform both decisions about granting tenure and decisions pertaining to the career trajectories and professional development needs of permanent teachers. In both cases, evaluation outcomes ultimately determine whether or not children in the state of California have access to effective teachers and, thus, to a quality education. Policies and practices in teacher evaluation in California currently differ substantially from those in other states. Moreover, many of California’s policies do not consistently align with research findings about strong evaluation practice.

The trend among states has been to make student achievement growth the key criterion or one of the key criteria in teacher evaluations. Sixteen states include student growth as a preponderant criterion in teacher evaluations, and 19 additional states include student growth measures as a “significant” criterion in teacher evaluations.<sup>69</sup> California’s Stull Act requires that school districts “establish a uniform system of evaluation and assessment of the performance of certificated personnel within each school district of the State.”<sup>xxvi</sup> While delegating a fair amount of discretion to school districts, the Act simultaneously requires districts to incorporate certain key elements into their evaluation processes.<sup>70</sup> According to California Education Code Section 44662(b), at a minimum, a school district’s governing board must evaluate and assess teacher performance using the following criteria: (1) the progress of the teacher’s students toward the standards of expected achievement set forth by the governing board for each grade level in each area of study and, if applicable, the state-adopted academic content standards as measured by state-adopted criterion-referenced assessments;

Evaluation systems that are truly comprehensive include support for supervision, and professional learning is readily available to those who need it.

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<sup>xxvi</sup> Cal. Educ. Code § 44660.

(2) the instructional techniques and strategies used by the employee; (3) the teacher's adherence to curricular objectives; and (4) the teacher's ability to establish and maintain a suitable learning environment.<sup>xxvii</sup> Additionally, if a school district participates in the Peer Assistance and Review (PAR) program<sup>xxviii</sup> for teachers, the teacher's participation in PAR must comprise part of the teacher's evaluation.<sup>71</sup>

Although the Stull Act sets forth the elements of teacher evaluation, the procedures for its implementation are a mandatory topic of collective bargaining.<sup>xxix</sup> Thus, there may be some districts that have very detailed teacher evaluation procedures that do not reflect the Stull Act. At this time, a lawsuit has been filed against 13 California school districts asserting that their evaluation procedures based on the *California Standards for the Teaching Profession* are not in compliance with the Stull Act.<sup>xxx</sup>

California requires school districts to assess and evaluate teachers less frequently than do most states. Twenty-seven states require annual evaluations for all teachers.<sup>72</sup> Teachers surveyed across the country support evaluation that occurs as frequently as annually or at least every two years.<sup>73</sup> California's Stull Act stipulates the frequency with which teachers must be evaluated and establishes procedural requirements regarding the manner in which evaluation and assessment results must be shared with teachers. The frequency with which teachers must be evaluated varies according to their employment status. While probationary teachers are evaluated at least once every school year, permanent teachers are evaluated once every other year, and permanent teachers with ten years of service in a school district may be evaluated as infrequently as once every five years. Any permanent teacher whose performance is deemed unsatisfactory must be evaluated annually until the employee receives a positive evaluation or is no longer employed by the district.

The practice of teacher evaluation in California currently varies dramatically by district. For example, in one large urban district, teachers are rated as either ineffective, needs improvement, or effective. On the other hand, other California districts have as many as five categories of evaluation, ranging from unsatisfactory to outstanding. Most of these systems do not include well-defined evaluation criteria, regardless of the number of categories they employ. In fact, many of the teacher evaluation systems used in schools across the nation today are based on outdated checklists that principals use to identify easily observable teacher

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<sup>xxvii</sup> Cal. Educ. Code § 44662.

<sup>xxviii</sup> The Peer Assistance and Review Program (PAR) is a mentoring program for teachers whose performance requires improvement. It can be found in Education Code Section 44500 and following sections. Section 44503 requires that a school district that accepts state funds for PAR must agree to negotiate its development and implementation with the teacher union.

<sup>xxix</sup> Under Section 3543.2 of the California Government Code. Section 3540 and following sections of the Government Code are known as the Educational Employment Relations Act.

<sup>xxx</sup> *Jane Doe 1 v. Antioch Unified School District*.

behaviors. These systems do not consider the complex set of teacher skills and behaviors that research has shown impact student learning.<sup>74</sup> Researchers maintain that teacher behaviors associated with student achievement are “high-inference” variables that cannot be broken down into discrete actions measurable through checklists.<sup>75</sup>

Teachers and principals have expressed concerns that principals lack sufficient time to evaluate all teachers effectively, and researchers suggest that principals require additional training to engage in more meaningful evaluation practices.<sup>76</sup> Not surprisingly, only a minority of teachers surveyed in 2010 described their most recent evaluations as “useful and effective”.<sup>77</sup>

The goal of strong evaluation should not be to rank and sort teachers, but rather to improve all teachers through a system of support and collegiality.

The costs of poorly designed evaluation systems can be high. Research on performance appraisal generally has shown that low-quality experiences in personnel evaluation can lead to employee job dissatisfaction and diminished commitment to the organization.<sup>78</sup> Moreover, in the case of schools, poorly designed evaluations may lead to erroneous conclusions that cause teachers to participate in unnecessary or inappropriate professional development, or result in flawed promotion and retention decisions.<sup>79</sup>

Although the field of education has yet to reach consensus on the “best” evaluation system, researchers have identified a number of attributes of strong evaluation systems. The following section provides an overview of the most important features.

### **Focused On Improving Teaching Through Support and Collegiality**

The goal of strong evaluation should not be to rank and sort teachers, but rather to improve all teachers through a system of support and collegiality.<sup>80</sup> Feedback from evaluations should, therefore, be shared with teachers to help them determine areas for growth and identify professional development needs or other strategies for improvement. Once teachers have had an opportunity to improve their teaching performance, a summative evaluation for making promotion and retention decisions should consider the teacher’s current level of performance, his/her participation in professional development, and whether he/she improved as a result of feedback and assistance.

Including teachers in the development of the evaluation system and using experienced teachers as mentors for new and struggling teachers strengthens teacher trust in the evaluation system and increases collegiality within schools. Teachers are also more likely to find the feedback to be useful and accurate when their colleagues are involved in the evaluation process.<sup>81</sup> Teachers describe PAR programs, which involve teachers and administrators working collaboratively to

evaluate and support struggling teachers, as fair and accurate performance evaluations.<sup>82</sup> Researchers have also found that teachers' involvement in the evaluation process, as well as their access to teacher mentors have resulted in higher levels of both teacher and student learning.<sup>83</sup>

### **Rooted in Professional Teaching Standards and Characterized by Multiple Levels of Performance Criteria**

Research has shown that standards-based teaching evaluation systems, that is, evaluation systems that are driven by clearly defined teaching standards, are associated with improved student learning.<sup>84</sup> Strong teacher evaluation systems should, therefore, be grounded in such pre-established professional teaching standards such as the *California Standards for the Teaching Profession*. These standards should include well-defined performance criteria that trace the progression of teaching practice along a continuum from novice to exemplary. Similarly, the evaluation tool should incorporate multiple levels of competency based on these standards.<sup>85</sup>

### **Based on Multiple Data Sources**

Strong teacher evaluation systems must rely upon measures that are both valid and reliable.<sup>86</sup> Valid measures reflect the underlying construct of interest. In the case of teacher evaluation, this construct is effective teaching. Reliable measures are those that produce consistent outcomes for individual teachers with limited variation attributable to the person conducting the evaluation, the students being taught, or the type of lesson being delivered. Reliability is particularly important when using classroom observations as a measure of teacher practice. Scores provided by different raters must paint a consistent picture.

Given the complex nature of teaching, no single measure is sufficient to capture fully the phenomenon. Multiple data sources more adequately portray effective teaching and thus provide more valid and reliable measures of teacher effectiveness.<sup>87</sup> Indeed, many states and districts are developing systems that incorporate evidence from classroom observations, student and parent surveys, student assessment data, participation in professional development, and teacher reflections. These models have shown promise as effective evaluation systems.<sup>88</sup>

#### **Include Meaningful Classroom Observations**

Although evaluations based on principals' observations have raised concerns about validity and reliability, studies have found that classroom observation data can be both valid and reliable when the rating system is rooted in teaching standards as described above, and when the observers are knowledgeable about teaching and are trained to use the rating system.<sup>89</sup> Rather than relying upon short classroom visits by principals, the systems used in these studies rely upon longer and more frequent classroom

observations, which can be completed by principals, other administrators, or experienced teachers.

### **Include Student Growth as One of Many Indicators**

Although the research on value-added models indicates that using student growth on state tests as a measure of individual teacher quality has questionable validity and reliability,<sup>90</sup> there are valid ways to include student academic growth in a teacher evaluation system.<sup>91</sup> Criteria for using student assessment data to evaluate teacher effectiveness include: 1) using multiple measures of student growth (as opposed to a single test score); 2) using assessments that are directly related to the curriculum being taught (as opposed to state level assessments, which are not directly related to the curriculum); 3) using measures that are valid for all of the students in the class (including English learners and students with disabilities); and 4) using assessments that can measure growth over time (as opposed to assessments that are designed to assess only “end-of-unit” learning).<sup>92</sup>

Regular feedback for all teachers helps not only individual teachers improve their practice, but it helps schools build cultures where professional learning is a central tenet.

### **Student Perspective as a Data Source**

Students offer a unique perspective on teacher effectiveness. As the direct recipients of instruction on a daily basis, students represent an important source of feedback regarding their own levels of motivation, the opportunities teachers provide them for learning, teachers’ communication skills, and the classroom climate. Research has shown that students can provide valid and reliable data when asked the right questions.<sup>93</sup>

### **Include More Frequent Evaluations of All Teachers**

Regular feedback for all teachers helps not only individual teachers improve their practice, but it helps schools build cultures where professional learning is a central tenet.<sup>94</sup> As referred to earlier in this paper, results from a national survey showed that teachers favor more frequent evaluation: 31% of tenured teachers agreed that all teachers should be evaluated annually, and an additional 26% percent indicated that they should be evaluated at least every two years.<sup>95</sup> Annual evaluations also enable districts to account for changes in expectations for teaching, which may be a function of new standards, elevated rigor, integration of technology, or changing student demographics, among other factors.

Darling-Hammond has identified a number of existing evaluation systems that exemplify strong practice.<sup>96</sup> New Mexico’s teacher evaluation system is based upon a three-tiered teacher licensure system. In order to progress from one tier to the

next, teachers are required to submit portfolios of their work similar to those required for National Board Certification. Trained evaluators, using state-level teaching performance standards, then score the portfolios. Requirements to meet the standards become more challenging at each successive tier. Local teacher evaluations are required annually and employ the same teaching standards as the state-level teacher evaluations. Local evaluations consider a combination of data, including classroom observations, student assessment scores, and professional learning activities. Principals are trained to evaluate teachers and are required to meet with teachers at the beginning of the year to set student learning goals and professional development objectives and once again at the end of the year to review progress toward those goals.

Significantly, another system identified by Darling-Hammond as exhibiting strong attributes belongs to California's San Mateo Union High School District. The district has developed a teacher evaluation system that is tied to the *California Standards for the Teaching Profession*. It utilizes rubrics with multi-level ratings ranging from unsatisfactory to exemplary. Teachers set goals each year and receive ongoing feedback. Ratings are based upon observations of their teaching, as well as on other evidence, such as student assessment data. Ratings on one year's evaluation determine the level of intensity of future evaluations. Teachers with more than two unsatisfactory ratings enter a PAR program. Once in PAR, a panel of teachers and administrators decides whether or not the teacher will be dismissed at the end of the year. Under current state law, districts in California are not required to develop evaluation systems of this caliber. Districts in California can, however, develop and adopt additional evaluation and assessment guidelines or criteria above and beyond those specified in the Stull Act.<sup>xxxii</sup> Thus, teacher evaluation practices in San Mateo demonstrate what is possible in California, but do not reflect standard practice at this time.

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<sup>xxxii</sup> Cal. Educ. Code § 44662.

## CALIFORNIA’S COSTLY AND TIME-CONSUMING TEACHER DISMISSAL PROCESS DISCOURAGES DISTRICTS FROM REMOVING INEFFECTIVE TEACHERS

Ideally, strong teacher evaluation systems identify ineffective teachers who then receive training and support to build capacity. In those instances, however, in which teacher effectiveness does not improve despite these efforts, a school district may pursue dismissal. If a district wishes to dismiss a probationary teacher, the process is fairly swift. Generally, the teacher is not reelected at the end of the first or second year and has no further legal recourse to contest the decision. If, however, the teacher has permanent status, the process is significantly more complex. Under the 14<sup>th</sup> Amendment to the U.S. Constitution, a contract of employment in the public sector may not be taken away without due process of law. This basically means the right to notice and a hearing. State law can expand on these rights, given either state constitutional provisions or provisions in the state statutes. The California Education Code delineates specific causes for which teachers may be dismissed;<sup>xxxii</sup> among these is unsatisfactory performance. Districts in California that pursue dismissal of an ineffective teacher must adhere to an elaborate, lengthy, and often costly procedural framework.

Generally, the dismissal process begins with the filing of written charges with the school board. Teachers may then respond with a hearing request. Teachers must also be given a grace period of at least 90 days to remediate performance after receiving a written notice of unsatisfactory performance. For notice of unprofessional conduct, the grace period is at least 45 days. Unprofessional conduct and unsatisfactory performance are the only grounds for dismissal that require prior written notice and a grace period to alter conduct prior to the initiation of a formal dismissal proceeding. In both cases, the notice must be sufficiently specific to enable the teacher to correct the faults and overcome grounds for the charges. If a teacher makes a timely request for a hearing after receiving formal notice of a dismissal, the hearing must commence within six months, although this time frame may be extended in certain

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<sup>xxxii</sup> Cal. Educ. Code § 44932.

circumstances. A formal pretrial hearing process triggers a set of discovery obligations and deadlines. Ultimately, the Commission on Professional Competence or an administrative law judge conducts the hearing. If the Commission on Professional Competence or judge rules not to dismiss or suspend the teacher, the school board must pay all trial costs.

In 2014, with the signing of Assembly Bill 215 into law, California added “egregious misconduct” as a new cause for discipline. This law creates a more streamlined procedural framework for those dismissal cases in which teachers are charged with certain criminal acts. The new law does not, however, address the issues raised in *Vergara v. State of California*, in which the court found that poor and minority students were disproportionately burdened by ineffective teachers who, due to California’s dismissal laws, remained employed because of the time and costs associated with removal.

Both the expense and amount of time required to complete the dismissal process discourage many districts from pursuing dismissal as a strategy for dealing with ineffective teachers. During the *Vergara* trial, a number of school district administrators provided testimony stating that the cost and time involved in the dismissal process were disincentives to dismissing ineffective teachers in their schools. Specifically, a former Los Angeles Unified School District Superintendent reported spending as much as \$250,000 to \$450,000 to dismiss an individual teacher.<sup>97</sup> According to the 2011-12 School and Staffing Survey (National Center for Educational Statistics) only 0.1% of tenured teachers in California were dismissed as a result of poor performance. However, it should be noted that if teacher evaluation is carefully done, ineffective teachers may choose to resign rather than contest the dismissal decision.

Both the expense and amount of time required to complete the dismissal process discourage many districts from pursuing dismissal as a strategy for dealing with ineffective teachers.

And yet the research is clear: Allowing a poorly performing teacher to stay in a classroom can have long-term effects on student learning. If the length and complexity of California’s due process dismissal laws result in ineffective teachers’ remaining in classrooms, the employment rights of adults have come at the expense of the rights of California’s children to a quality education. The situation is exacerbated by evidence that schools attended by poor and minority students are more likely to employ ineffective teachers in the first place than those attended by children from more affluent families.<sup>98</sup> This fact, coupled with the policy-driven disincentives to pursuing dismissal of ineffective teachers, increases the likelihood that children in these schools will be taught by ineffective teachers. The consequences of this reality do not bode well for student

learning given research findings that identify poor, minority students as those who benefit the most from effective teachers.<sup>99</sup>

## IN CALIFORNIA, TEACHER EFFECTIVENESS IS NOT A CONSIDERATION IN DECISIONS TO LAY OFF TEACHERS DURING BUDGET CRISES

In addition to dismissing teachers for cause, districts are often forced to lay off teachers for reasons unrelated to teacher performance. For example, during difficult economic times, a school district may lay off certificated employees due to budget constraints. California Education Code sets forth three circumstances in which layoffs of certificated employees are permissible: (1) average daily attendance layoffs, (2) particular kinds of services layoffs, and (3) Budget Act limit layoffs. In all cases, it is a violation of the Education Code for a school district to lay off a permanent teacher while retaining a probationary or less experienced teacher to render services that the permanent teacher can competently render.<sup>xxxiii</sup> Under this policy, also referred to as “Last In-First Out” (LIFO), the newest teachers in a district are the first to experience layoffs when positions are eliminated.

There are a few occasions in which districts may deviate from seniority-based layoffs. These include instances in which a district needs personnel with a skill set that more senior employees do not possess or “for purposes of maintaining or achieving compliance with constitutional requirements related to equal protection of the laws.” It is the latter provision that has produced the greatest uncertainty and precipitated litigation, such as the case of *Reed v. State of California*. As discussed earlier in this report, the plaintiffs construed this provision to permit the exemption from layoffs of teachers in district schools located in urban areas populated by high percentages of low-income students of color. The plaintiffs maintained that without the exemption a disproportionate number of layoffs in these schools would deny students an equal opportunity to learn. The current exceptions do not, however, specify teacher effectiveness as a clear basis for deviating from seniority-based decision-making.

Goldhaber and Theobald compared the impact of effectiveness-based layoffs with that of seniority-based layoffs and found that when effectiveness was a consideration in layoff decisions, it resulted in a gain of 2.5 to 3.5 months of student learning.

### Layoff Decisions Based Solely on Seniority Increase the Probability that Effective Teachers are Laid Off

Researchers have discovered a statistically significant negative relationship between measures of teacher effectiveness and the probability of being laid off

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<sup>xxxiii</sup> Cal. Educ. Code § 44955(b).

during a budget crisis.<sup>100</sup> Goldhaber and Theobald compared the impact of effectiveness-based layoffs with that of seniority-based layoffs and found that when effectiveness was a consideration in layoff decisions, these decisions resulted in a gain of 2.5 to 3.5 months of student learning.<sup>101</sup> Kraft also compared the impact of effectiveness-based layoffs with that of seniority-based layoffs and reached similar conclusions.<sup>102</sup> The use of alternative protocols over seniority-based measures resulted in a stronger pool of quality teachers whose instruction yielded higher achievement. Kraft concluded that “layoff policies that do not incorporate increasingly available measures of teacher effectiveness fail to consider all the best available information when making high-stakes decisions.”<sup>103</sup>

Although the simplicity and transparency of seniority-based layoffs make them easier to implement, it is difficult to argue that it is in the best interest of students given research demonstrating that the difference between having a very effective and a very ineffective teacher may be tantamount to as much as full year’s growth in learning.<sup>104</sup> Moreover, research findings that indicate that years of service are not a strong barometer of teacher effectiveness raise major concerns about the efficacy of California’s use of seniority as the sole criterion for laying off teachers during budget crises.<sup>105</sup>

### **Seniority-Based Layoff Decisions have a Disproportionately Detrimental Effect on Schools that Educate Children of Color and Those from Low-Income Communities**

In recent years, policymakers, education advocates, as well as legal and education scholars have suggested that the root of the problem of unequal schooling may be found at the intersection of teacher quality and the employment laws that define the structure of the public school teaching workforce.<sup>106</sup> The economic vulnerability experienced during the Great Recession of 2008 and the accompanying threat of large numbers of budget-induced layoffs brought to the forefront policy discussions, litigation, and legislation regarding layoff decisions by schools. Of particular concern was the impact of layoff decisions on educational equity and adequacy.<sup>107</sup>

Without question, layoff decisions that are based solely on teacher seniority will hit hardest those schools with the greatest number of junior teachers. Once again, researchers have found that children of color and those from low-income homes will be disproportionately affected because their schools tend to have the greatest number of junior teachers.<sup>108</sup> Goldhaber and Theobald have demonstrated that, under a seniority-based layoff process, black students were far more likely than other racial groups to have been

Once again, researchers have found that children of color and those from low-income homes will be disproportionately affected because their schools tend to have the greatest number of junior teachers.

assigned to the classroom of a teacher who received a layoff notice. In contrast, when layoffs considered teacher effectiveness, layoff notices were more evenly distributed across student subgroups.<sup>109</sup>

Children in schools that lose the most teachers will also suffer more dramatically the effects of teacher turnover than their peers from more affluent communities. The costs of teacher turnover are many. Findings from a study conducted by the National Commission on Teaching and America's Future found that teacher turnover has significantly negative performance and fiscal impacts on schools.<sup>110</sup> Often, lower performing schools are not able to concentrate on closing achievements gaps due to the time and resources invested in constantly rebuilding their teaching staffs. The study examined five school districts representing a range of communities throughout the U.S. Researchers found that the costs of recruiting, hiring, and training replacement teachers are substantial in both small and large districts. In a school district such as Chicago's, the total cost of teacher turnover is estimated to be over \$86 million per year. At-risk schools pay the highest cost for teacher turnover since their already limited resources are shifted to cover the costs of replacing teachers. Additionally, chronic turnover often affects the professional development of teachers and other operational components of high performing schools such as class size and curriculum planning.<sup>111</sup>

The loss of teachers, especially those who may be among the most effective, is also likely to affect school culture. A school's culture is largely a function of the adults who help create it. These adults develop intellectual capital in students by creating focused communities that cultivate a deep appreciation for learning.<sup>112</sup> The rituals, norms, commitments, and traditions they foster become the academic capital that motivates and supports student learning and ultimately leads to long-term economic benefits for individuals.<sup>113</sup> The ability to create a classroom culture that fosters intellectual engagement is a critical attribute of teachers who deliver high-quality instruction.<sup>114</sup>

Successful schools function as professional learning communities in which teachers build collective efficacy by working together over time to resolve issues of teaching and learning.<sup>115</sup> The sudden exodus of large numbers of junior teachers due to layoffs can decimate collaborative teacher teams in certain schools. As a result, children in these schools lose the benefits that accrue from strong teacher-to-teacher collaboration. Researchers have found that the collective experiences of teachers as they learn from each other are associated with improvements in teaching and, thus, student achievement.<sup>116</sup> Through professional collaboration, educators are better able to develop a common set of goals and a shared vision for instructional effectiveness.<sup>117</sup> Researchers have also found that stakeholders in the most effective schools have developed a high degree of relational trust.<sup>118</sup> In fact, some researchers claim that teacher effectiveness is less a function of individual

attributes than it is the collective leadership of teachers within their school or community.<sup>119</sup>

### **California is Not Part of a Growing Trend toward Considering Teacher Effectiveness in Layoff Decisions**

California is not the only state to use seniority as the primary mechanism for making layoff decisions during budget crises.<sup>120</sup> The growing trend, however, is to move toward merit-based systems. Nineteen states require performance to be considered in making layoff decisions. An additional 22 states prevent seniority from being the sole factor in determining which teachers are laid off when layoffs become necessary. Only two states, Nevada and Utah, prohibit seniority as a consideration when making a layoff decision.<sup>121</sup>

## RESEARCH-GUIDED RECOMMENDATIONS FOR STEWARDS OF EDUCATION IN CALIFORNIA

Research offers one of several lenses through which to examine the implications of public policy. Reliance on research studies is, however, not without its limitations. Characteristics of the design or methodology of studies may influence the interpretation of the findings. In most cases, this report cites multiple studies to support each point in order to minimize overreliance on any one study or researcher. As with most analyses, multiple sources of data provide the most thorough context for decision-making.

When it comes to the state's obligation to educate future Californians, research findings about the role of an effective teacher in student learning and, thus, a quality education cannot be overstated. Policies established for other purposes that diminish – however unintentionally – the chances for certain subsets of students to access effective teachers merit serious reexamination. This report concludes with a set of specific recommendations for state legislators – the stewards of education in California. Each recommendation is derived directly from the analysis of the research herein presented.

## THE ROUTE TO TENURE IN CALIFORNIA MUST BE LONGER

A thorough search of the literature found no evidence that tenure *by itself* promotes or hinders teacher effectiveness. There is, however, some evidence that tenure serves other important purposes related to teacher protections and the attractiveness of the teaching profession. **There is, thus, not a compelling research-based reason to recommend elimination of teacher tenure altogether, as has been done in some other states.**

However, in order to ensure that decisions to grant tenure place a premium on teacher effectiveness, the requirements for tenure must be tightened. These include extending the probationary period during which teachers are learning the complex skills of teaching to correspond more closely with what the research shows about the trajectory of teacher growth. **In order to avoid prematurely denying tenure to potentially effective teachers or granting permanent status to those who are not truly effective, the probationary period for new teachers should be extended to five years and based upon at least four annual evaluations.**

## TENURE BENEFITS SHOULD CONTINUE TO BE EARNED THROUGH DEMONSTRATIONS OF TEACHER EFFECTIVENESS

**A**dditionally, making tenure contingent upon job performance elevates teaching to the highly skilled profession that it truly is and places the need for children to have access to effective teachers above all others. **Tenured teachers who receive unsatisfactory performance evaluations for two consecutive years should revert to probationary status and receive professional development and mentoring to help them meet standards of effectiveness.** If they are unable to meet standards within two years, they should be dismissed.

## CALIFORNIA SHOULD REQUIRE THAT ALL DISTRICTS EVALUATE TEACHERS ON AN ANNUAL BASIS USING SYSTEMS THAT REFLECT BEST PRACTICES

**G**iven the inextricable link between teacher effectiveness and a quality education, teachers, like employees in many other professions, should have annual valid and reliable evaluations in order to ensure their continued effectiveness and ability to meet ever-changing expectations. Evaluations should be designed in collaboration with teachers and their unions but must satisfy a number of key criteria:

- Evaluation instruments should be highly sensitive and, thus, include well-defined levels of performance to reflect the complexity of teaching and generate truly meaningful feedback for teachers.
- Evaluations must incorporate multiple sources of data to capture fully the complexity of teaching. Specifically, data should include measures of student learning on formative assessments aligned to the delivered curriculum, in addition to such other sources as observations of instruction and student

feedback, when possible. These data should offer ongoing evidence of student learning and provide teachers with timely feedback for modifying instruction.

- In an attempt to increase reliability and validity in measuring teacher effectiveness, evaluations must be administered by professionals who have been provided adequate time and training to conduct them. Specifically, evaluators must have a deep understanding of what effective teaching looks like and extensive familiarity with their district’s evaluation tools. They should be required to undergo extensive training on their district’s evaluation instruments before they engage in formal teaching evaluations. School district training programs should ensure that every evaluator demonstrates the ability to assess teaching performance in ways that are consistent with agreed upon understandings of effective teaching practices. Evaluation feedback should be delivered with the intent to support those who are not fully effective and encourage and strengthen the skills of those who are already affective. Timely, high-quality professional support must be available to any teacher whose evaluation is less than satisfactory. Administrators should receive training on how to use district evaluation tools in a formative way that supports the improvement of teaching and learning.

The successful implementation of a “best practice” evaluation system may necessitate more resources in some schools. For example, in order to ensure the increased instructional effectiveness of teachers through more regular evaluation, many California schools may need more administrative support.

## **PROCEDURES FOR DISMISSING INEFFECTIVE TEACHERS MUST BE STREAMLINED TO REDUCE TIME AND COST SO THAT STUDENTS ARE NOT SUBJECTED TO INEFFECTIVE TEACHERS**

**W**hen it comes to the education of children, the employment rights of adults should not take precedence over the education rights of children. Dismissal procedures must, therefore, balance students’ rights to effective teachers with employees’ rights to due process. The state should require a timely mechanism for addressing teacher ineffectiveness so that students are not repeatedly subjected to ineffective teachers. The process of dismissal must clearly distinguish between issues of teacher effectiveness and teacher conduct. The legislature, with input from both administrators and teachers, should define

dismissal processes in ways that simultaneously and reasonably safeguard the rights of teachers to due process and the rights of children to effective teachers.

## **IN ADDITION TO SENIORITY, MULTIPLE CRITERIA SHOULD BE UTILIZED IN LAYOFF DECISIONS TO MINIMIZE THE IMPACT OF BUDGET CRISES ON STUDENTS' ACCESS TO EFFECTIVE TEACHERS**

**L**ayoff policies should consider teacher effectiveness as a primary criterion in making reduction-in-force decisions. If two teachers are deemed equally effective, seniority and other considerations may then become determining factors. Efforts to spread the impact of layoffs across schools should require that no school experience the layoff of more than a set percentage of its teaching staff before all other schools have experienced similar reductions. This will avoid having certain schools – particularly those with the largest number of junior teachers – absorb disproportionately adverse impacts from budget crises. Specifically, these layoff policies will minimize damage to the collective efficacy of teachers and the culture at any single school site.

## CONCLUDING THOUGHTS

**W**ell-placed concerns about the access of all children in California to quality education should be met with policies that place a premium on access to truly effective teachers. To the extent of its authority, the state must hold districts accountable for ensuring that the complex craft of teaching is deeply understood and well implemented in each and every classroom. Efforts to distribute financial resources more fairly or to increase local accountability for student performance will yield small returns unless the quality of instruction to which children are exposed on a daily basis is truly effective. In the end, it is effective teaching that enables schools to change outcomes for children who otherwise might not have access to college and professional careers. Policies that support effective, high-quality instruction and ensure students' access to the highest quality teachers—advance a future California in which most citizens experience the possibility of prosperity.

## Endnotes

- <sup>1</sup> Ko, J., Sammons, P., & Bakkum, L. (2013). *Effective teaching: A review of research and evidence*. Reading, UK: CfBT Education Trust.
- <sup>2</sup> Aaronson, D., Barrow, L., & Sander, W. (2007). Teachers and student achievement in Chicago public high schools. *Journal of Labor Economics*, 25(1), 95-135; Hattie, J. (2009), *Visible learning*. London; New York: Routledge; McCaffrey, J. R., Lockwood, D. F., Koretz, D. M., & Hamilton, L. S. (2003). *Evaluating value added models for teacher accountability* [Monograph]. Santa Monica, CA: RAND Corporation. Retrieved from [http://www.rand.org/pubs/monographs/2004/RAND\\_MG158.pdf](http://www.rand.org/pubs/monographs/2004/RAND_MG158.pdf); Nye, B., Konstantopoulous, & Hedges, L.V. (2004). How large are teacher effects? *Educational Evaluation and Policy Analysis*, 26(3), 237-257; Rivkin, S.G., Hanushek, E.A., & Kain, J.F. (2000). *Teachers, schools, and academic achievement*. Cambridge, MA: National Bureau of Economic Research, NBER Working Paper # W6691.
- <sup>3</sup> Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrics*, 73, 417- 458; Rockoff, J. E., Jacob, B. A., Kane, T. J., & Staiger, D. O. (2008). *Can you recognize an effective teacher when you recruit one?* (NBER Working Paper No. 14485). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w14485>
- <sup>4</sup> Aaronson, D., Barrow, L., & Sander, W. (2007); Heck, R. H., & Moriyama, K. (2010). Examining relationships among elementary schools' contexts, leadership, instructional practices, and added-year outcomes: A regression discontinuity approach. *School Effectiveness and School Improvement*, 21(4), 377-408; Ladwig, J. (2007). Modeling pedagogy in Australian school reform. *Pedagogies*, 2(2), 57-76.
- <sup>5</sup> Ko et al., 2013
- <sup>6</sup> Robertson, M. (2015). Blaming Teacher Tenure is Not the Answer. *Journal of Law & Education*, 44(3), 463-471.
- <sup>7</sup> Darling-Hammond, L. (2004). Inequality and the right to learn: Access to qualified teachers in California's public schools, *Teachers College Record*, 106(10), 1936-1966; Lankford, H., Loeb, S., & Wykoff, J. (2002). Teacher Sorting and the Plight of Urban Schools: A Descriptive Analysis. *Educational Evaluation and Policy Analysis*, 24(1), 37-62.
- <sup>8</sup> Ibid.
- <sup>9</sup> Ko et al., 2013
- <sup>10</sup> Hightower, A., Delgado, R., Lloyd, S., Wittenstein, R., Sellers, K., & Swanson, C. (2011). *Improving student learning by supporting quality teaching: Key issues, effective strategies*, Bethesda, MD: Editorial Projects in Education, Inc.; Ravitch, D. (2010). *The death and life of the great American school system: How testing and choice are undermining education*. New York, NY: Basic Books.
- <sup>11</sup> Chetty R, Friedman J., & Rockoff, J. (2013). *Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood*. NBER Working Paper 19424; Murnane, R., Willett, J., & Levy, F. (1995). The growing importance of cognitive skills in wage determination. *Review of Economics and Statistics*, 77 (2): 251-66; Neal, D., & Johnson, W. (1996). The role of premarket factors in black-white wage differences. *The Journal of Political Economy*, 104(5): 869-895.

<sup>12</sup> Kane, T. J., McCaffrey, D. F., Miller, T., & Staiger, D. O. (2013). *Have we identified effective teachers? Validating measures of effective teaching using random assignment*. Seattle, WA: Bill & Melinda Gates Foundation. Met Project.

<sup>13</sup> Durlak, J., Weissberg, R., Dymniki, A., Taylor, R., & Schellinger, K. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432; Jennings, P., & Greenberg, M. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79*(1), 491-525.

<sup>14</sup> Aaronson, Barrow, & Sander, 2007; Hattie, 2009; McCaffrey et al., 2003; Nye, Konstantopoulous, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005

<sup>15</sup> Barber, M. & Mourshed, M. (2007). *The McKinsey Report: How the world's best performing school systems come out on top*. London: McKinsey & Company.

<sup>16</sup> Hanushek, E. A. (2012). Teacher deselection. In D. Goldhaber & J. Hannaway (Eds.), *Creating a new teaching profession* (pp 165-180). Washington, DC: Urban Institute Press.; McCaffrey et al., 2003; Sanders, W., & Rivers, J. C. (1996). *Cumulative and residual effects of teachers on future student academic achievement*. Knoxville, TN: University of Tennessee Value-Added Research Center.

<sup>17</sup> Berliner, D.C. (2013) Problems with value-added evaluations of teachers? Let me count the ways! *The Teacher Educator, 48*(4), 235-243, DOI: 10.1080/ 08878730.2013.827496; Darling-Hammond, L. (2015). Can value added add value to teacher evaluation? *Educational Researcher, 44*(2), 132–137. doi:10.3102/0013189X15575346; Haertel, E. H. (2013). *Reliability and validity of inferences about teachers based on student test scores*. Princeton, NJ: Educational Testing Service; Kersting, N. B., Chen, M., & Stigler, J. W. (2013). Value-added teacher estimates as part of teacher evaluations: Exploring the effects of data and model specifications on the stability of teacher value-added scores. *Education Policy Analysis Archives, 21*. Retrieved from <http://epaa.asu.edu/ojs/article/view/1167>; Konstantopoulos, S. (2014). Teacher effects, value-added models, and accountability. *Teachers College Record, 116* (1). Retrieved from <http://www.tcrecord.org/content.asp?contentid=17290>; Polikoff, M.S., & Porter, A.C. (2014). Instructional Alignment as a measure of teaching quality. *Educational Evaluation and Policy Analysis, 36* (4), 399-416.; Schochet, P. Z. & Chiang, H.S. (2010). *Error rates in measuring teacher and school performance based on student test score gains* (NCEE 2010-4004). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

<sup>18</sup> Braun, H.I. (2005). *Using student progress to evaluate teachers: A primer on value-added models*. Princeton, NJ. ETS Policy Information Center Report.

<sup>19</sup> Nye, Konstantopoulos, & Hedges, 2004

<sup>20</sup> Ball, D. & Rowan, B. (2004). Introduction: Measuring instruction. *The Elementary School Journal 105*(1), 3-10; Darling-Hammond, L. (2007). Third annual Brown lecture in education research—The flat earth and education: How America's commitment to equity will determine our future. *Educational Researcher, 36*(6), 318-334; Fink, E., & Resnick, L. B. (2001). Developing principals as instructional leaders. *Phi Delta Kappan, 82*(8), 598-606.

<sup>21</sup> Goe, L., Bell, C., & Little, O. (2008). *Approaches to evaluating teacher effectiveness: A research synthesis*. Washington, DC: National Comprehensive Center for Teacher Quality; Hanover Research,

(2012). *Best practices for including multiple measures in teacher evaluations*. Washington, D.C.: author; Ko et al., 2013

<sup>22</sup> Rivkin, Hanushek, & Kain, 2005; Rockoff, J. E., Jacob, B. A., Kane, T. J., & Staiger, D. O. (2008). *Can you recognize an effective teacher when you recruit one?* (NBER Working Paper No. 14485). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w14485>

<sup>23</sup> Aaronson, Barrow, & Sander, 2007; Heck & Moriyama, 2010; Ladwig, 2007

<sup>24</sup> Kane, T. J., Taylor, E. S., Tyler, J. H., & Wooten, A. L. (2011b). Identifying effective classroom practices using student achievement data. *Journal of Human Resources*, 46(3), 587-613.

<sup>25</sup> Matsumura, L., Garnier, H. E., Slater, S., & Boston, M. D. (2008). Toward measuring instructional interactions "at-scale". *Educational Assessment*, 13(4), 267-300; Newmann, F. M., Marks, H. M., & Gamoran, A. (1996). Authentic pedagogy and student performance. *American Journal of Education*, 104, 280-312.; Schacter, J., & Thum, Y. M. (2004). Paying for high- and low-quality teaching. *Economics of Review*, 23, 411-430.

<sup>26</sup> Goe, L. (2007). *The link between teacher quality and student outcomes: A research synthesis*. Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved from <http://www.tqsource.org/link.php>

<sup>27</sup> Ko et al., 2013

<sup>28</sup> Hightower et al., 2011

<sup>29</sup> Goe, 2007; Goldhaber, D., & Brewer, D. (2001). Evaluating the evidence on teacher certification: A rejoinder. *Educational Evaluation & Policy Analysis*, 23, 79-86; Kane, T.J., Rockoff, J., & Staiger, D. (2006). *What does certification tell us about teacher effectiveness? Evidence from New York City* (Working Paper 12155). Cambridge, MA: National Bureau of Economic Research; Rice, J. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes*. Washington, DC: Economic Policy Institute; Wayne, A. & Youngs, P. (2003). Teacher characteristics and student achievement gains: A review. *Review of Educational Research*, 73, 89-122.

<sup>30</sup> Harris, D. & Sass, T. (2007). *Teacher training, teacher quality and student achievement* (Working Paper No. 3). Washington, DC: National Center for Analysis of Longitudinal Data in Education Research; Rice, 2003

<sup>31</sup> (Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2010). Teacher layoffs: An empirical illustration of seniority vs. measures of effectiveness. *CALDER Brief 12*. Washington D.C.: The Urban Institute. Retrieved from <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/1001421-Teacher-Layoffs-An-Empirical-Illustration-of-Seniority-vs-Measures-of-Effectiveness.PDF>; Clotfelter, C., Ladd, H., & Vigdor, J. (2006). *Teacher-student matching and the assessment of teacher effectiveness* (Working Paper 11936). Cambridge, MA: The National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w11936>; Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *American Economic Review*, 94(2), 247-252.

<sup>32</sup> Kane, T.J., & Staiger, D. (2012). *Gathering feedback for teaching: Combining high-quality observations with student surveys and achievement gains*. Seattle, WA: Bill and Melinda Gates Foundation. Met Project.

<sup>33</sup> Hattie, J. (2009)

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> Marzano, R. (2009). *The art and science of teaching*. Alexandria, VA: ACSD.

<sup>37</sup> Hattie, J. (2015). *What works best in Education: The politics of collaborative expertise*. New York, NY: Pearson. Retrieved from [https://www.pearson.com/content/dam/corporate/global/pearson-dot-com/files/hattie/150526\\_ExpertiseWEB\\_V1.pdf](https://www.pearson.com/content/dam/corporate/global/pearson-dot-com/files/hattie/150526_ExpertiseWEB_V1.pdf)

<sup>38</sup> Ibid., p.6.

<sup>39</sup> Bowen, E. (2003). Student engagement and its relationship to quality work design: A review of the literature. *Action Research Exchange*, 2(1); Cochran-Smith, M. (2003). The unforgiving complexity of teaching: Avoiding simplicity in the age of accountability. *Journal of Teacher Education*, 54(1), 3-5; Strom, K. (2015). Teaching as assemblage: Negotiating learning and practice in the first year of teaching. *Journal of Teacher Education*, 66(4), 321-333

<sup>40</sup> Ferguson, R. (2007). *Toward excellence with equity: An emerging vision for closing the achievement gap*. Boston, MA: Harvard Education Press.

<sup>41</sup> Strom, 2015

<sup>42</sup> Berliner, D., (1986). In pursuit of the expert pedagogue. *Educational Researcher*, 15(7). 5-13.

<sup>43</sup> Darling-Hammond, L. & Bransford, J. (Eds.). (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco, CA: Jossey-Bass.

<sup>44</sup> California Commission on Teacher Credentialing, (2009). *California Standards for the Teaching Profession*. Sacramento, CA: author

<sup>45</sup> Danielson, C. (2013). *Framework for Teaching: Evaluation Instrument*. Retrieved on December 27, 2015 at <https://www.danielsongroup.org/framework/>; Gallagher, K. L. (2013). Performance assessment for quality teaching: three critical variables for measuring and improving teaching and learning (Order No. 3571185). Available from ProQuest Dissertations & Theses Full Text. (1429525668); Pianta, R., LaParo, K., & Hamre, B. (2008). *Classroom Assessment Scoring System (CLASS): Pre-K Version*. Baltimore, MD: Brookes Publishing.

<sup>46</sup> Hakel, M., Anderson Koenig, J., & Elliott, S. (Eds.). (2008) *Assessing accomplished teaching: Advanced-level certification programs*. Washington, D.C.: National Academies Press.

<sup>47</sup> Marzano, 2009

<sup>48</sup> Kemerer, F. & Sansom, P. (2013). *California school law (3rd Ed.)*. Stanford, CA: Stanford University Press

<sup>49</sup> Koppich et al., 2013

<sup>50</sup> Boyd, D., Grossman, P., Lankford, H., Loeb, S. & Wyckoff, J. (2006). How changes in entry requirements alter the teacher workforce and affect student achievement. *Education Finance and Policy*, 1 (2), 176-216; Clotfelter et al., 2006; Goe 2007; Hattie, 2009; Kane, Rockoff, & Staiger, 2006; Rice, 2003; Rivkin et al., 2005; Rockoff, 2004

<sup>51</sup> Koppich et al., 2013

<sup>52</sup> Ibid.

<sup>53</sup> Ingersoll, R., & Strong, M. (2011). The Impact of Induction and Mentoring Programs for Beginning Teachers: A Critical Review of the Research. *Review of Educational Research*, 81(2), 201–233

<sup>54</sup> Stryer, M., Teoh, M., Blackwell, L., & Hommeyer, C. (2015). *Raising the bar: The views of California teachers on tenure, layoffs and dismissal*. Teach Plus, p. 2

<sup>55</sup> Ibid.

<sup>56</sup> Berliner, 1986

<sup>57</sup> Darling-Hammond, L. (2013). *Getting teacher evaluation right*. New York, NY: Teachers College Press.

<sup>58</sup> Task Force on Educator Excellence. (2012). Greatness by design: Supporting outstanding teaching to sustain a Golden State. California State Superintendent of Public Instruction. Retrieved from <http://www.cde.ca.gov/eo/in/documents/greatnessfinal.pdf>

<sup>59</sup> Robertson, 2015

<sup>60</sup> National Council on Teacher Quality (2015b). *Policy issues: Tenure*. Retrieved from <http://www.nctq.org/statePolicy/2015/statePolicyIssues.do#9> (last visited Jan. 9, 2016).

<sup>61</sup> Loeb, S., & Miller, L. C. (2006). *A review of state teacher policies: What are they, what are their effects, and what are their implications for school finance?*. Governor's Committee on Education Excellence.; Miller, R., & Chait, R. (2008). *Teacher turnover, tenure policies, and the distribution of teacher quality: Can high-poverty schools catch a break*. Washington, DC: Center for American Progress.

<sup>62</sup> Bidwell, A. (2014, February 27). The history of common core state standards. *U.S. News and World Report*. Retrieved from <http://www.usnews.com/news/special-reports/articles/2014/02/27/the-history-of-common-core-state-standards?int=9e0208>

<sup>63</sup> Loeb, S., Miller, L. C., & Wyckoff, J. (2015). Performance screens for school improvement: The case of teacher tenure reform in New York City. *Educational Researcher*, 44(4), 199-212.

<sup>64</sup> Ibid.

<sup>65</sup> McNeal, L. (2013). *Total recall: The rise and fall of teacher tenure*. *Hofstra Labor and Employment Law Journal*, 30(2). Retrieved from <http://scholarlycommons.law.hofstra.edu/hlelj/vol30/iss2/9>

<sup>66</sup> Ibid.

<sup>67</sup> Robertson, 2015

<sup>68</sup> Darling-Hammond, 2013

<sup>69</sup> National Council on Teacher Quality (2015c). *State of the states 2015: Evaluating teaching, leading and learning*. Retrieved from [http://www.nctq.org/dmsView/Executive\\_Summary](http://www.nctq.org/dmsView/Executive_Summary)

<sup>70</sup> Kemerer & Sansom, 2013

<sup>71</sup> Ibid. p. 184, note 1

<sup>72</sup> National Council on Teacher Quality (2015a). *Policy issues: Dismissal and LIFO*. Retrieved from <http://www.nctq.org/statePolicy/2015/statePolicyIssues.do#3> (last visited Jan. 9, 2016)

<sup>73</sup> Duffett, A., Farkas, S., Rothertham, A.J., & Silva, E. (2008). *Waiting to be won over: Teachers speak on the profession, unions and reform*. Washington, DC: Education Sector.

<sup>74</sup> Danielson, C. (2012a). It's your evaluation - Collaborating to improve teacher practice. *The Education Digest*, 77(8), 22-27; Danielson, C. (2012b). Observing classroom practice. *Educational Leadership*, 70 (3), 32-37; Darling-Hammond, 2013; Marzano, R.J. & Toth, M.D. (2013). *Teacher evaluation that makes a difference: A new model for teacher growth and student achievement*. Alexandria, VA; ASCD

<sup>75</sup> Darling-Hammond, L., Wise, A., & Pease, S. (1983). Teacher evaluation in the organizational context: A review of the literature. *Review of Educational Research*, 53(3), 285–328. doi:10.3102/00346543053003285

<sup>76</sup> Danielson, 2012b; Darling-Hammond, 2013; Marzano & Toth, 2014; Tuytens, M., & Devos, G. (2013). How to activate teachers through teacher evaluation? *School Effectiveness and School Improvement*, 25(4), 509–530. doi:10.1080/09243453.2013.842601

<sup>77</sup> Duffett et al., 2008

<sup>78</sup> Brown, M., Hyatt, D., & Benson, J. (2010). Consequences of the performance appraisal experience. *Personnel Review*, 39(3), 375–396. doi:10.1108/00483481011030557

<sup>79</sup> Scriven, M. (1995). A unified theory approach to teacher evaluation. *Studies in Educational Evaluation* 11,111-129.

<sup>80</sup> Danielson, 2012a; Darling-Hammond, 2013; Schooling, P., Toth, M., & Marzano, R. (2010). *Creating an aligned system*, Englewood, CO, Marzano Research Laboratory; Task Force on Educator Excellence, 2012

<sup>81</sup> Tuytens & Devos, 2013

<sup>82</sup> Goldstein, J. (2007). Easy to dance to: Solving the problems of teacher evaluation with peer assistance and review. *American Journal of Education*, 113(3), 479–508. doi:10.1086/512741

<sup>83</sup> Danielson, C. & McGreal, T.L. (200). *Teacher evaluation to enhance professional practice*. Alexandria, VA: ASCD; Kraft, M. A., & Papay, J. P. (2014). Can professional environments in schools promote

teacher development? Explaining heterogeneity in returns to teaching experience. *Educational Evaluation and Policy Analysis*, 36(4), 476–500.

<sup>84</sup> Milanowski, A. (2004). The Relationship between teacher performance evaluation scores and student achievement: Evidence from Cincinnati. *Peabody Journal of Education*, 79(4), 33-53.

<sup>85</sup> Danielson, 2012a; Darling-Hammond, 2013; Schooling, Toth & Marzano, 2010

<sup>86</sup> Danielson, 2012a; Darling-Hammond, 2013; Hanover Research, 2012; Schooling, Toth & Marzano; Task Force on Educator Excellence, 2012; Tuytens, M., & Devos, G. (2012). Importance of system and leadership in performance appraisal. *Personnel Review*, 41(6), 756–776.  
doi:10.1108/00483481211263692

<sup>87</sup> Hanover Research, 2012; Kane, McCaffrey, Miller, Staiger, 2013

<sup>88</sup> Darling-Hammond, 2013; Kane, 2012; Kane et al., 2013; Milanowski, 2004

<sup>89</sup> Danielson, 2012a; Darling-Hammond, 2013; Ho, A.D., & Kane, T.J. (2013). *The reliability of classroom observations by school personnel*. Research Paper. MET Project. Bill & Melinda Gates Foundation; Kane, T.J., Taylor, E.S., Tyler, J.H., & Wooten, A.L. (2011a). Evaluating teacher effectiveness: Can classroom observations identify practices that raise achievement? *Education Next*, 11(3)

<sup>90</sup> Berliner, 2013; Darling-Hammond, 2015; Haertel, 2013; Kersting, Chen & Stigler, 2012; Konstantopoulos, 2014; Polikoff & Porter, 2014; Schochet & Chiang, 2010

<sup>91</sup> Darling-Hammond, 2013; Marzano & Toth, 2013

<sup>92</sup> Ibid.

<sup>93</sup> Ferguson, R.F. (2012). Can student surveys measure teaching quality? *The Phi Delta Kappan*, 94 (3), 24-28; Hanover Research, 2012; Kane, 2012; Ferguson, R.F. (2012). Can student surveys measure teaching quality? *The Phi Delta Kappan*, 94 (3), 24-28; Peterson, K., Wahlquist, C., & Bone, K. (2000). Student surveys for school teacher evaluation. *Journal of Personnel Evaluation in Education*, 14(2), 135–153. doi:10.1023/A:1008102519702

<sup>94</sup> Darling-Hammond, 2013; Task Force on Educator Excellence, 2012

<sup>95</sup> Duffett, Farkas, Rothertham, & Silva, 2008

<sup>96</sup> Darling-Hammond, 2013

<sup>97</sup> Sawchuck, S. (2014, February 5). Teachers' job protections debated in California Trial. *Education Week*. Retrieved from [www.edweek.org](http://www.edweek.org).

<sup>98</sup> Darling-Hammond, 2004; Lankford, Loeb, & Wyckoff, 2002

<sup>99</sup> Nye, Konstantopoulos, & Hedges, 2004

<sup>100</sup> Goldhaber, D. & Theobald, R. (2010). *Assessing the determinants and implications of teacher layoffs*. Working Paper 55. National Center For Analysis Of Longitudinal Data In Education Research;

Hanushek, E. A. (2011). The economic value of higher teacher quality. *Economics of Education Review*, 30(3), 466-479

<sup>101</sup> Goldhaber & Theobald, 2010

<sup>102</sup> Kraft, M.A. (2015). Teacher layoffs, teacher quality and student achievement: Evidence from a discretionary layoff policy. *Education Finance and Policy*, 11(4): 1-41

<sup>103</sup> Ibid. p. 37

<sup>104</sup> Haycock, K. (1998). Good teaching matters: How well-qualified teachers can close the gap. *Thinking k-16*, 3(2), n2; Hanushek, 2011; Peske, H. G., & Haycock, K. (2006). *Teaching inequality: How poor and minority students are shortchanged on teacher quality: A report and recommendations by the Education Trust*. Education Trust

<sup>105</sup> Boyd et al., 2010; Clotfelter et al., 2006; Kane & Staiger, 2012; Rockoff, 2004

<sup>106</sup> Hahnel, C., Barondess, H., & Ramanathan, A. (2011). *Victims of the churn: The damaging impact of California's teacher layoff policies on schools, students, and communities in three large school districts*. K-12 Policy. Education Trust-West; Koski, W. (2012). Teacher collective bargaining, teacher quality, and the teacher quality gap: Toward a policy analytic framework. *Harvard Law & Policy Review*, 6, 67-90; National Council on Teacher Quality (2010). *Teacher layoffs: Rethinking "last-hired, first-fired" policies*. Washington, DC: Author; Strunk, K. O., Goldhaber, D., Knight, D. S., & Brown, N (2015). *Are there hidden costs associated with conducting layoffs? The impact of RIFs and layoffs on teacher effectiveness*. (CALDER Working Paper 140). Washington, DC: National Center for Analysis of Longitudinal Data in Education Research; Superfine, B. M., & Gottlieb, J. J. (2014). Teacher evaluation and collective bargaining: The new frontier of civil rights. *Michigan State Law Review*, 2014(3), 737-788. Retrieved from <http://digitalcommons.law.msu.edu/lr/vol2014/iss3/10/>

<sup>107</sup> Kraft, 2015; Sepe, C., & Roza, M. (2010). The disproportionate impact of seniority-based layoffs on poor, minority students. *Schools in crisis: Making ends meet*. Center on Reinventing Public Education. Retrieved from [http://www.crpe.org/sites/default/files/rr\\_crpe\\_layoffs\\_rr9\\_may10\\_0.pdf](http://www.crpe.org/sites/default/files/rr_crpe_layoffs_rr9_may10_0.pdf); Stein-Manes, A. (2014). Putting every student first: The state constitutionality of last-in, first-out seniority protections when economic layoffs disproportionately impact poor and minority students. *Boston University Public Interest Law Journal*, 23, 389-423; Strunk, Goldhaber, Knight & Brown, 2015; The New Teacher Project (2014). *Rebalancing Teacher Tenure A Post-Vergara Guide for Policymakers*. Retrieved from [http://tntp.org/assets/documents/TNTP\\_RebalancingTenure\\_2014.pdf](http://tntp.org/assets/documents/TNTP_RebalancingTenure_2014.pdf)

<sup>108</sup> Darling-Hammond, 2004; Lankford, Loeb, Wyckoff, 2002

<sup>109</sup> Goldhaber & Theobald, 2010

<sup>110</sup> Barnes, G., Crowe, E., & Schaefer, B. (2007). *The cost of teacher turnover in five school districts: A pilot study*. National Commission on Teaching and America's Future. Retrieved from <http://nctaf.org/wp-content/uploads/CTTExecutiveSummaryfinal.pdf>

<sup>111</sup> Guin, K. (2004). Chronic teacher turnover in urban elementary schools. Education Policy Analysis Archives, 12(42). DOI: <http://dx.doi.org/10.14507/epaa.v12n42.2004>

<sup>112</sup> Sergiovanni, T. J. (1998). Leadership as pedagogy, capital development and school effectiveness. *International Journal of Leadership in Education Theory and Practice*. 1 (1), 37-46

<sup>113</sup> Goddard, R. D. (2003). Relational networks, social trust, and norms: A social capital perspective on students' chances of academic success. *Educational Evaluation And Policy Analysis*, 25(1), 59-74.

<sup>114</sup> Ball & Rowan, 2004; Cuban, L. (2006). Getting Past Futile Pedagogical Wars. *Phi Delta Kappan*, 87(10), 793-795.; Elmore, R. F. (1996). Getting to scale with successful educational practices. *Harvard Educational Review*, 66(1), 1-26; Gallagher, 2013; Elmore, R. F. (1996). Getting to scale with successful educational practices. *Harvard Educational Review*, 66(1), 1-26

<sup>115</sup> Boyer, E. (1995). *The basic school: A community for learning*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.

<sup>116</sup> Bryk, A. S., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation; Goddard, Y., Goddard, M., & Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record Volume 109* (4), p. 877-896; Halverson, R. R. (2003). Systems of practice: How leaders use artifacts to create professional community in schools. *Education Policy Analysis Archives*, 11(37); Jackson, C. Kirabo, & Bruegmann, E. (2009). Teaching students and teaching each other: The importance of peer learning for teachers. *American Economic Journal: Applied Economics* 1(4); Little, J. W. (2003). Inside teacher community: Representations of classroom practice. *Teachers College Record*, 105, 913-945.

<sup>117</sup> Leana, C. R., & Pil, F. K. (2006). Social capital and organizational performance: Evidence from urban public schools. *Organization Science*, 17(3), 353-366.

<sup>118</sup> Bryk, A. S., Sebring, P.N., Allensworth, E., Luppescu, S., and Easton, J. Q..(2010). *Organizing schools for improvement: Lessons for Chicago*. Chicago: University of Chicago, Consortium on Chicago School Research.

<sup>119</sup> Viadero, D. (2009, September 1). Top-notch teachers found to affect peers. *Education Week*. Retrieved from [http://www.edweek.org/ew/articles/2009/09/01/03peer.html?tkn=VQ\[F91pv4%2Fm1H05QrumV3xEwIqnZkr5Dl8iG](http://www.edweek.org/ew/articles/2009/09/01/03peer.html?tkn=VQ[F91pv4%2Fm1H05QrumV3xEwIqnZkr5Dl8iG).

<sup>120</sup> Kraft, 2015

<sup>121</sup> National Council on Teacher Quality, 2015b