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Sharing the Wealth: National Board Certified Teachers and the Students Who Need Them Most

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Abstract

It is a commonly understood problem in education that many highly qualified teachers tend to gravitate toward higher performing schools, including schools with lower minority enrollments and lower incidence of poverty. This article explores the distribution of a subset of teachers, namely, those who are National Board Certified. To what extent do these teachers' assignment choices mirror the pattern of their non-Board Certified colleagues and to what extent are they different? Part of a larger study of Board Certified Teachers in lower performing schools, the article examines the distribution of NBCTs in the six states with the largest number of them—California, Florida, Mississippi, North Carolina, Ohio, and South Carolina. The research finds that, with the exception of California, Board Certified Teachers are not equitably distributed across schools that serve different populations of students. In five of the six states examined, poor, minority, and lower performing students are far less likely to benefit from the teaching of an NBCT than are their more

affluent, majority, higher performing peers. The article explores some possible explanations for the California distribution pattern as well as the kinds of incentives provided across the states for teachers to seek Board Certification and for those who earn it. The authors conclude with a rationale and a set of policy suggestions for realigning the distribution of NBCTs.

Introduction

When the National Board for Professional Teaching Standards was launched in 1987, it represented the cutting edge of the teacher quality movement. Created as an outgrowth of the Carnegie Forum on Education and the Economy, the National Board was established to create rigorous standards for what, in now-familiar National Board vernacular, "accomplished teachers should know and be able to do." A voluntary system, the National Board certifies teachers who meet these standards. State certification represents the floor, a set of minimum licensing requirements. National Board Certification is designed to reflect a substantially higher level of professional achievement. In effect, National Board Certification is meant to bring teaching more in line with other professions in which state licensing boards set minimum standards and the profession sets standards for advanced certification to identify accomplished practice.

In the span of a decade and a half, promoting the National Board has become a significant state and local policy strategy to improve teaching. Policy-makers and educators across the nation have adopted National Board Certification as a proxy for accomplished teaching. As of March 2004, all 50 states and approximately 538 school districts offered financial incentives for teachers to pursue National Board Certification and additional kinds of incentives, including salary bonuses, for those who earn it (NBPTS, 2004a).

The National Board also represents a substantial fiscal commitment. Over the years, the federal government, states, local school districts, and philanthropic foundations have invested well over $200 million to develop and implement the National Board (Teacher Quality Bulletin, 2003).[1] As larger numbers of teachers have earned Board Certification—the total stood at more than 32,000 as of November 2003—and the dollar commitment to fuller implementation has grown, some policy-makers have begun to wonder whether results justify the price tag. For example, California's budget crisis, and the need to select among competing fiscal priorities, caused that state to eliminate the $10,000 bonus it awarded to all teachers who earned National Board Certification. Although California has thus far maintained a $20,000 award for National Board Certified Teachers (NBCTs) working in low-performing schools, other states are reconsidering their investments.[2] Georgia, which has offered a 10 percent salary bonus to every teacher in that state who earns National Board Certification, is considering scaling back this incentive since the cost has tripled from one fiscal year to the next (Sack, 2003).

As policy-makers consider investments in the National Board Certification process, questions about the impact of these investments on student achievement naturally arise. Early indications suggested that NBCTs contribute to student learning (Bond, 2000). A new study

[1] This estimate includes $74 million in reimbursement of application fees of successful candidates and $130 million from the U.S. Department of Education but does not include funds from philanthropic foundations. The Bush administration recently announced that it is eliminating federal funding for the National Board.

[2] California defines low-performing schools as those scoring in the bottom 50 percent on state tests.

using North Carolina data found that National Board Certified Teachers are more successful at raising student achievement, than teachers who applied but did not earn certification particularly among teachers of low-income students (Goldhaber and Anthony, 2004). In addition, a recent study on the impact of National Board Certified Teachers on student achievement in 14 Arizona school districts argued that the students of National Board Certified Teachers had greater gain scores than students of teachers without certification (Vandevoort, Amrein-Beardsley, & Berliner, 2004). However, additional definitive research is still under way, and we suspect it will be many years before the research community sorts out the effects of NBCTs from the effects of other factors that influence student achievement. Meanwhile, policy-makers are shaping policy regarding NBCTs.

Without diminishing the importance of the student achievement aspect, this paper addresses an equally important question for policy-makers: what is the distribution of NBCTs across schools that serve different populations of students? In other words, we examine to what extent NBCTs are found in higher-performing, typically more affluent schools and to what extent they are found in lower-performing, often economically poorer schools. [3]

We believe that this is a critical issue for policy-makers as they consider their investments in the National Board Certification process. More than 35 years ago, the political scientist David Easton defined politics as "the authoritative allocation of [societal] values" (Easton, 1965). If state and local policies about NBCTs, which influence where they teach and why, are values made real, then an examination of these policies should reveal something about our collective beliefs about which students ought to have access to the most highly recognized teachers.

The next section of this paper addresses the National Board Certification as a school improvement strategy. Subsequent sections take up the issues of teacher distribution generally, the distribution of National Board Certified Teachers specifically, and policies that influence teacher assignment decisions. The paper concludes with a set of policy implications and actions for states, school districts, and the National Board itself to consider.

National Board Certification and Education Improvement

National Board Certification, a centerpiece of nationwide efforts to boost the profile of high-quality teaching, reflects a major policy emphasis on improving teaching as central to improving student learning. Research about the impact of effective teaching has reinforced what common sense would suggest: teaching matters. Study after study confirms that students who have high-quality teachers post significant and lasting achievement gains. Those with less-effective teachers play a constant, and often losing, game of academic catch-up (Koppich, 2001).

In a Texas study, for example, nearly half the difference in test scores between white and African-American students was attributable to variation in teacher quality (Ferguson, 1991). A study by Hanushek and his colleagues revealed that the most-effective teachers were able to boost their students' learning a full grade level more than did less-effective teachers. Replacing an average teacher with an excellent one, according to this study, nearly erased the gap in mathematics performance between students from low-income and high-income households. (The Teaching Commission, 2004)

[3] This article is part of a study, "The Impact of National Board Certified Teachers on Low-Performing Schools," funded by Atlantic Philanthropies and is a cooperative effort of SRI International, WestEd, the Southeast Center for Teacher Quality, and J. Koppich & Associates.

Research on value-added assessment, which attempts to distinguish teachers' contributions to student learning from other contributing or distracting factors, further reinforces that the quality of teaching makes a difference in levels of student learning. A series of Tennessee studies revealed that excellent teachers produce greater learning gains regardless of the academic starting points of their students.[4]

The conclusion seems inescapable. In the words of the National Commission on Teaching & America's Future (1996), "What teachers know and can do makes the crucial difference in what children learn." The National Board for Professional Teaching Standards finds its foundation in this conclusion.

The National Board was developed as a central component of what was described as a "new framework for teaching, … a system in which school districts can offer the pay, autonomy, and career opportunities necessary to attract to teaching highly qualified people who would otherwise take up other professional careers. In return, teachers would agree to higher standards for themselves and real accountability for student performance" (Carnegie, 1986).

Findings about effective teaching were used by the National Board to design research-based core propositions for the occupation. These hold that:

- Teachers are committed to students and their learning.
- Teachers know the subjects they teach and how to teach those subjects to students.
- Teachers are responsible for managing and monitoring student learning.
- Teachers think systematically about their practice and learn from experience.
- Teachers are members of learning communities.

National Board Certification is not achieved by means of a classic paper-and-pencil exam, nor does the process assess just a single dimension of teaching. Board Certification assesses teachers' subject matter knowledge, a critical component of effective teaching. In addition, Board candidates must prepare a professional portfolio. Requiring as much as 300 hours of work to assemble, the portfolio includes a videotaped exemplar of the candidate's teaching and an explanation of his or her instructional choices, as well as multiple samples of student work, a description of the way in which the work was analyzed, actions taken to remediate students' academic deficiencies, and a review of students' subsequent progress. In sum, National Board Certification is designed to appraise multiple dimensions of effective teaching, ranging from teachers' knowledge of the disciplines they teach to their ability to diagnose and "treat" students' learning needs.

Teachers who meet the National Board's professional standards generally are considered to be valuable members of their school communities. But where NBCTs teach is an important question for policy-makers on two related dimensions: distribution of teaching expertise and distribution of resources. We turn first to an examination of the distribution of well-qualified teachers generally, and then take a closer look at the kinds of schools in which NBCTs are most likely to be found.

[4] The Tennessee value-added research was conducted by Dr. William Sanders. Other studies—see, for example, Kupermintz (2003)—suggest that value-added needs further refinement. But we believe the results are substantial enough that they cannot be ignored.

The Teacher Distribution Dilemma

We know from previous research that high-caliber teachers often are in short supply in low-performing schools. For example, secondary students in low-performing schools are twice as likely as those in high-performing schools to be taught by teachers who are not certified in the subjects they are teaching. Half of middle school students and one-third of high school students in high-poverty (and typically low-performing) schools are in at least one class taught by a teacher who did not complete even a college minor in the subject (*Education Week*, 2003).

Research also has demonstrated that experience leads to greater teaching proficiency (Wilson, Floden & Ferrini-Mundy, 2001). We know, however, that teachers in high-poverty, high-minority schools are likely to have less teaching experience than their colleagues in low-poverty, higher-performing schools. As *Education Week* reported in *Quality Counts* 2003, "For states to end the 'achievement gap' between minority and non-minority students and those from rich and poor families, they must first end the 'teacher gap': the dearth of well-qualified teachers for those who need them most."

This is not to suggest that excellent teachers cannot be found in low-performing schools. They can be and are. But the relative lack of highly qualified teachers in these teaching circumstances has long been apparent. This situation results from a confluence of factors, including substandard working conditions, a paucity of incentives (including financial incentives) for high-quality teachers to choose difficult teaching environments, long-standing policies and practices related to teacher transfer and assignment, and the culture of teaching itself.

Although it is not entirely clear what factors attract or keep high-caliber teachers at certain schools, research suggests that working conditions play an essential role. An analysis of the Schools and Staffing Survey (SASS) data by *Education Week* found that teachers in high-poverty and high-minority schools report much more difficult working conditions—higher transiency and turnover rates among students, teachers, and administrators; fewer available resources; less-well-maintained facilities; a less-collaborative school culture; and more-difficult community and parent circumstances (*Education Week*, 2003). These conditions contribute to heightened concern among teachers in low-performing schools about being able to demonstrate excellence (Public Agenda, 2003).

Lack of financial incentives also affects teacher assignments. Most teachers continue to be paid on the standard single salary schedule. Compensation rises with years of experience and college credits accrued. This salary construct typically grants no special economic benefits to teachers willing to tackle the toughest assignments. Districts are left with little means financially to lure particularly well-qualified teachers to struggling schools.

This situation gives rise to a significant corollary to the skewed distribution of expert teachers, namely, the maldistribution of resources. Less-experienced, often less-well-qualified, and lower-paid teachers are concentrated in lower-performing schools, and these schools find themselves with a reduced level of absolute resources compared with higher-performing schools with more-experienced, better-paid teachers (Roza & Hill, 2004).

A third challenge to attracting highly qualified teachers to low-performing schools and retaining them there is created by long-standing policy and practice related to teacher transfer and assignment. For example, transfer policies in a number of districts allow teachers who may initially find themselves assigned to low-performing schools to move to greener school pastures once they have accrued a modest amount of seniority. In the absence of incentives to remain in

these challenging work environments, many take that opportunity, only to be replaced at low-performing schools by their less-experienced colleagues.

Still other policies hamper interdistrict transfers, even among teachers who might consider moving to low-performing schools, albeit in a different district. For example, leaving one district for another, even for one with a similar or higher pay structure, may require a teacher to take a pay cut when local or state policy caps an interdistrict transfer's placement on the salary schedule.

Finally, there is the culture of the profession itself. Teaching ascribes greater prestige to those who teach in higher-performing schools. In other words, one's professional status is often a function of how elite one's students are (Haycock, 2000). Those who teach in low-performing schools are neither lauded nor applauded for the challenges they have assumed. On the contrary, teachers in low-performing schools often feel stigmatized by low expectations for themselves and their students (Public Agenda, 2003).

Attracting high-quality teachers to low-performing schools is only half the dilemma. Retaining them at these schools can also be problematic. According to data from the National Center for Education Statistics (NCES), teachers in schools with minority enrollments of 50 percent or more transfer at twice the rate of teachers in schools with fewer minority students. Moreover, when teachers transfer to different schools, even within urban districts, they tend to seek schools with higher student achievement, fewer black or Hispanic students, and fewer students who are eligible for free or reduced-price lunch (Hanushek, 2001).

If the distribution of teachers in the general teaching population, then, is tilted toward concentrating more-experienced, better-qualified educators in higher-performing schools, does this same pattern obtain for NBCTs? Are they, too, more likely to be found in higher-performing than in lower-performing schools?

We turn now to an examination of the kinds of schools in which NBCTs teach.

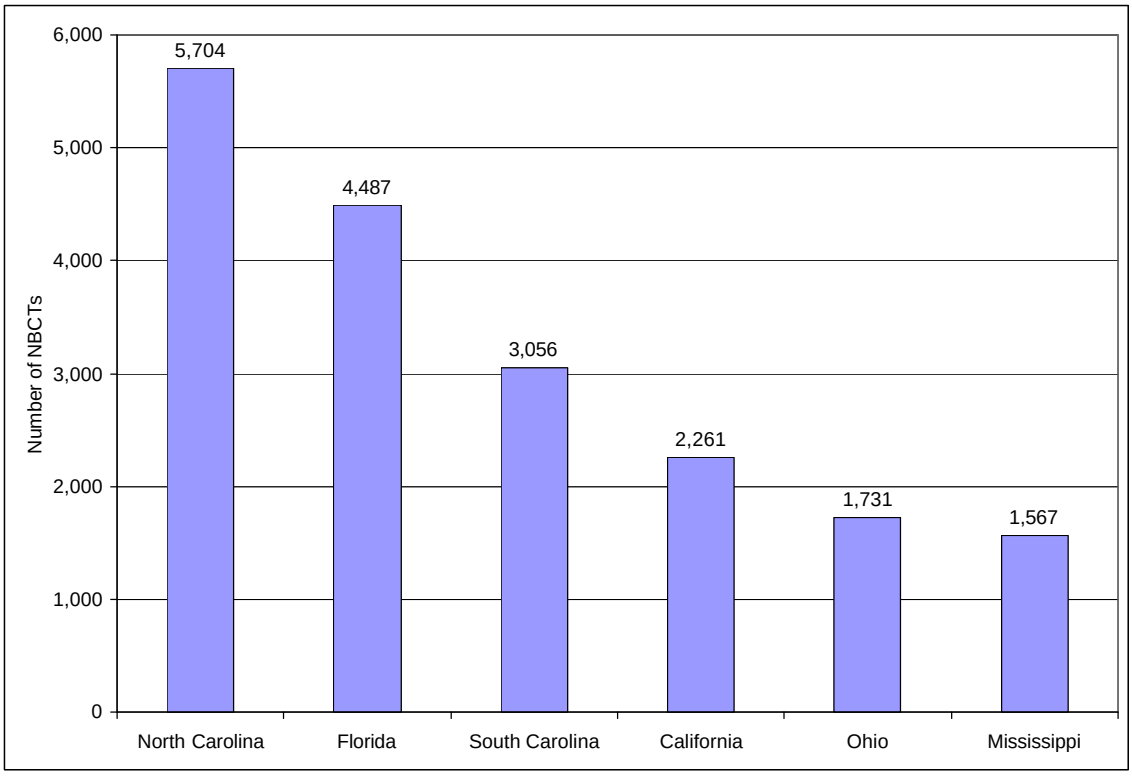
Where Do NBCTs Teach?

Since the first teachers earned National Board Certification in 1993, more than 30,000 teachers have joined their ranks in every state. Beyond these figures, what is known about where NBCTs teach? At least one early study from North Carolina suggested that NBCTs are rather scarce in low-performing, low-income schools with high concentrations of minority students (Goldhaber, 2003).

To answer the question about NBCT distribution more completely, we examined the assignments of Board Certified teachers by school type in the six states with the largest number of NBCTs—California, Florida, Mississippi, North Carolina, Ohio, and South Carolina. These states represent more than 65 percent of all NBCTs nationwide (NBPTS, 2004b). We limited our analysis to NBCTs who have earned certification since 1998[5]. Figure 1 displays the number of teachers certified by the National Board since 1998 in each of the six states we examined.

5 In our efforts to verify the location of NBCTs, we found that information from the National Board's database was often inaccurate. As a result, we believe that a more accurate analysis is done with the cohort of NBCTs since 1998. These NBCTs represent 58% of the total nationwide.

Figure 1. NBCTs since 1998, by State

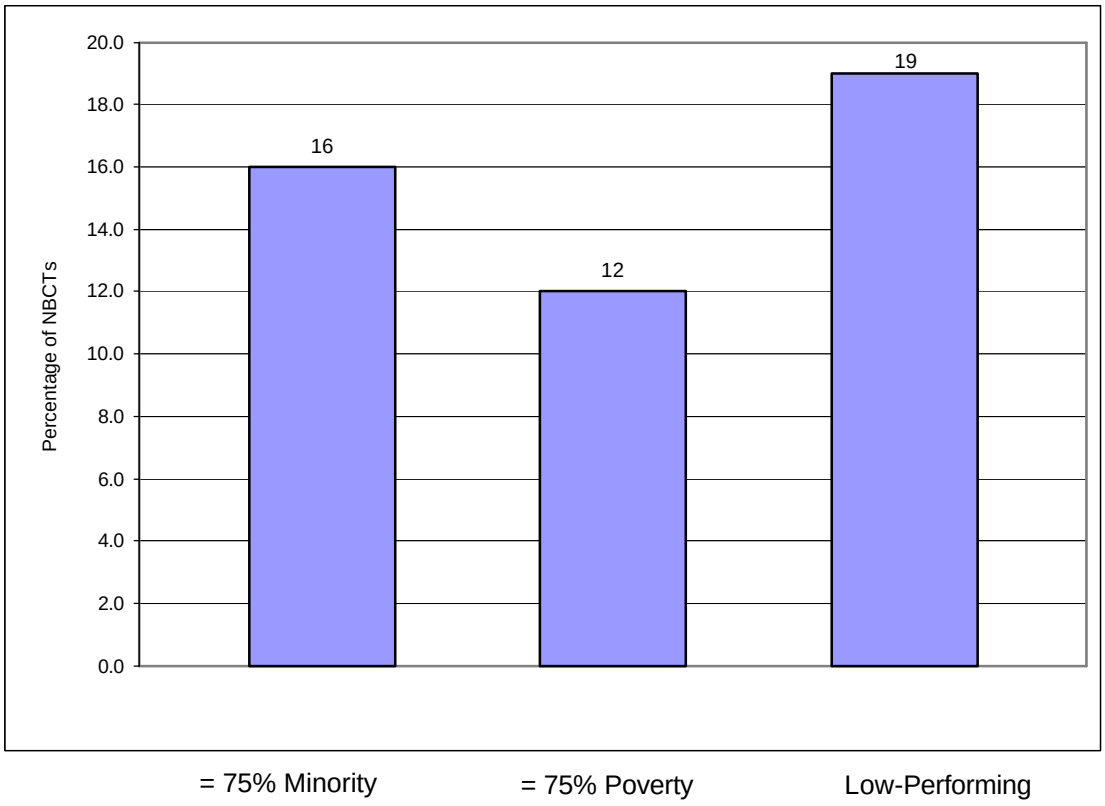


Source: NBPTS (2004); SRI analysis.

It is worth noting that our analysis includes only NBCTs who are teaching in schools and only those teachers who earned certification since 1998. Thus, the total number of NBCTs in each state actually is higher, but the limits of the data required us to make some choices. For example, 2,644 teachers in California have earned certification, but only 2,292 have been certified since 1998 and only 2,261 of those are working in schools.

We began our analysis by looking at the overall distribution of NBCTs by school type in our six states. Specifically, we were interested in the percentage of NBCTs working in schools serving high-poverty students, high concentrations of minority students, and low-performing students. Figure 2 illustrates the percentages of NBCTs who teach in these high-need schools.

Figure 2. NBCTs Working in High-Minority, High-Poverty, and Low-Performing Schools



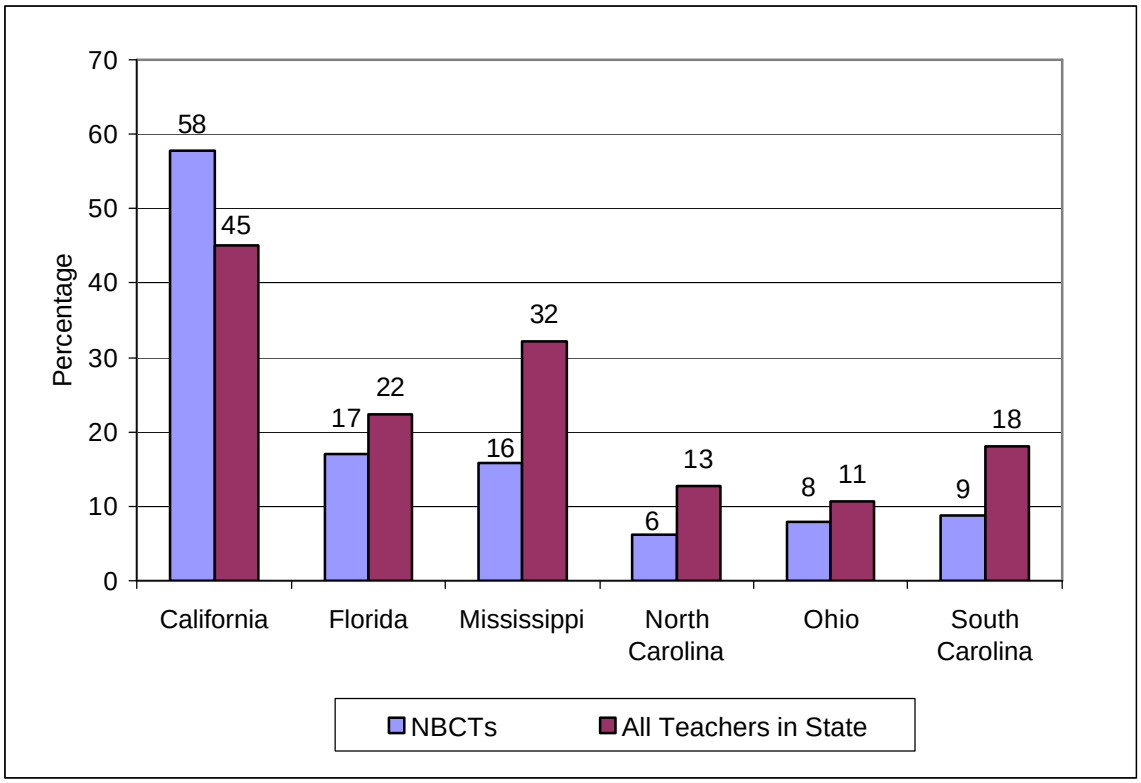
Source: CDE (2004), FDOE (2004), MDE (2004), NBPTS (2004c), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); SRI analysis.

Of the 18,806 NBCTs in our analysis who earned certification since 1998, 2,297, or 12%, teach in schools with 75% or more students eligible for free or reduced-price lunch. Similarly, 3,076 NBCTs, or 16% of the total, teach in schools serving 75% or more minority students. Finally, 3,521 NBCTs, or 19%, work in low-performing schools.[6]

Despite the fact that NBCTs are found in these high-need schools, they are not well represented in these schools in five of our six states. For example, with the exception of California, NBCTs are underrepresented in schools with high concentrations of minority students. Figure 3 compares the percentages of NBCTs in schools with at least 75 percent minority students with the respective statewide percentages of teachers in these schools.

[6] We define low-performing schools as those with state test scores in the bottom three deciles for two of the three years beginning in the 2000-2001 school year. We acknowledge that this definition does not actually allow for comparisons between schools in different states because state assessment systems differ. However, we argue that the bottom 30% of schools in a state is a reasonable proxy for low performance. In addition, defining low-performing schools as those that fall into the bottom three deciles for two out of three years allows us to include schools that may have been improving, in part, because of the presence of NBCTs.

Figure 3. Proportions of NBCTs and All Teachers in High-Minority Schools

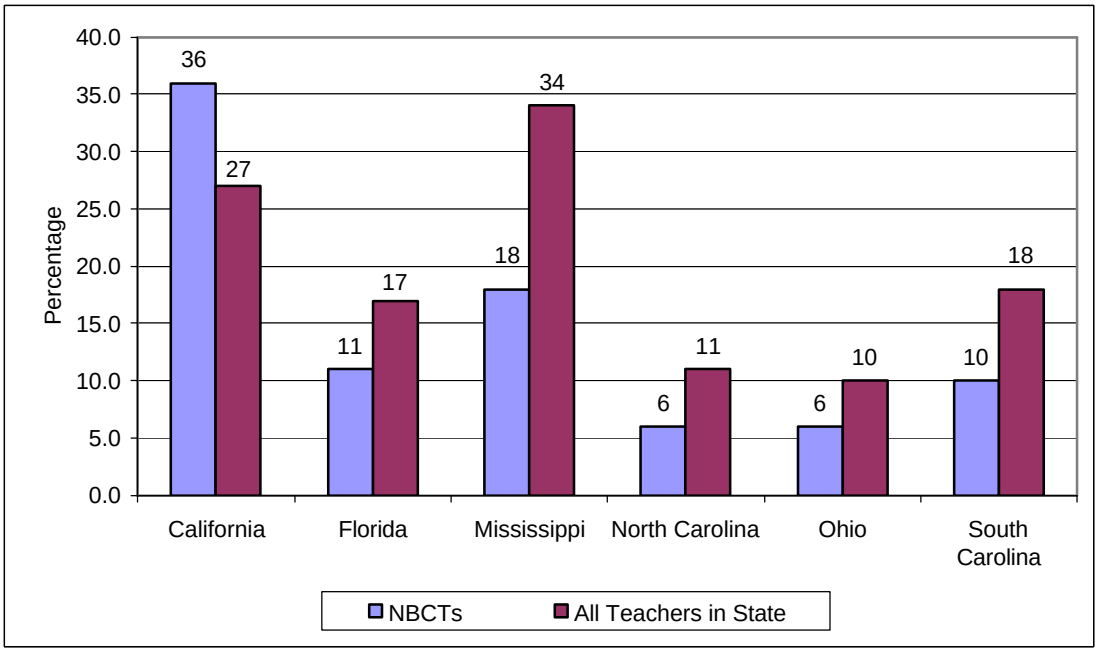


Source: NBPTS (2004c), NCES (2004); SRI analysis.

As Figure 3 illustrates, NBCTs are underrepresented in schools with high concentrations of minority students in five of the six states. California is the exception. In California, a higher proportion of NBCTs work in schools with high concentrations of minority students, compared with the state's average for all teachers.

If we look at the distribution of NBCTs in high-poverty schools (schools with 75 percent or more of students eligible for free or reduced-price lunch), we see a similar pattern. With the exception of California, NBCTs are underrepresented in high-poverty schools. Figure 4 displays the percentage of NBCTs in high-poverty schools, compared with the state averages.

Figure 4. Percentage of NBCTs and All Teachers in High-Poverty Schools

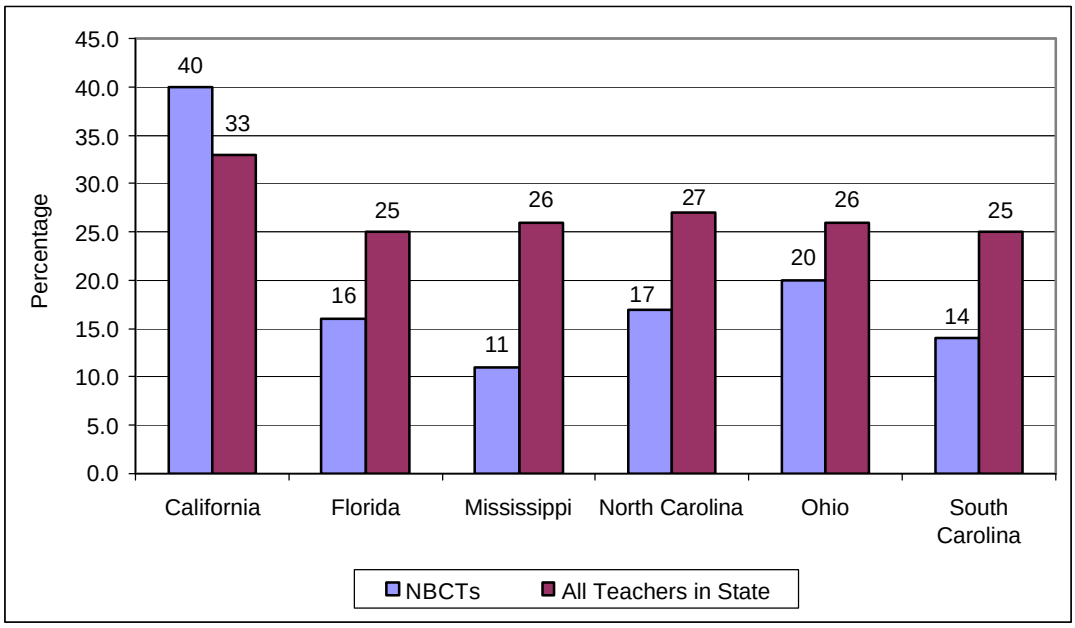


Source: NBPTS (2004c), NCES (2004); SRI analysis.

As is the case with schools with high concentrations of minority students, NBCTs are underrepresented in high-poverty schools in five of the six states. In other words, NBCTs are less likely to teach in these high-need schools than the average of all teachers in the states. California again is the exception. Unlike the other five states, NBCTs in California are overrepresented in high-poverty schools.

If we examine the data for low-performing schools, the same pattern continues. Figure 5 displays the percentage of NBCTs and all teachers in low-performing schools.

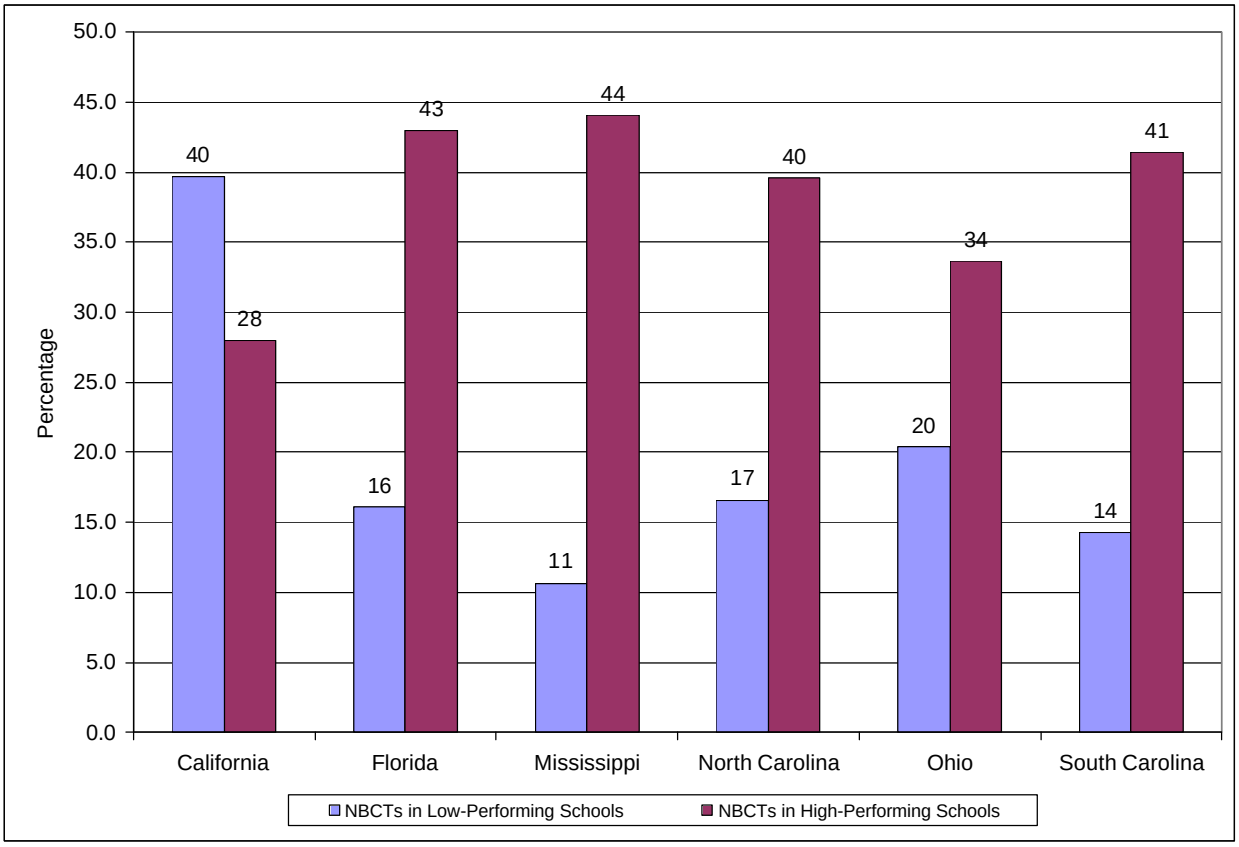
Figure 5. Percentage of NBCTs and All Teachers Teaching in Low-Performing Schools



Source: CDE (2004), FDOE (2004), MDE (2004), NBPTS (2004c), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); SRI analysis.

Figure 5 shows that NBCTs are underrepresented in low-performing schools in five out of the six states. Again, California stands out as the exception. If we examine the distribution of NBCTs in schools at the other end of the spectrum (those schools in the top three deciles of student achievement), we see that NBCTs are overrepresented in high-performing schools in each state except California. Figure 6 compares the percentages of NBCTs teaching in high- and low-performing schools.[7]

Figure 6. Percent of NBCTs in High- and Low-Performing Schools



Source: CDE (2004), FDOE (2004), MDE (2004), NBPTS (2004c), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); SRI analysis.

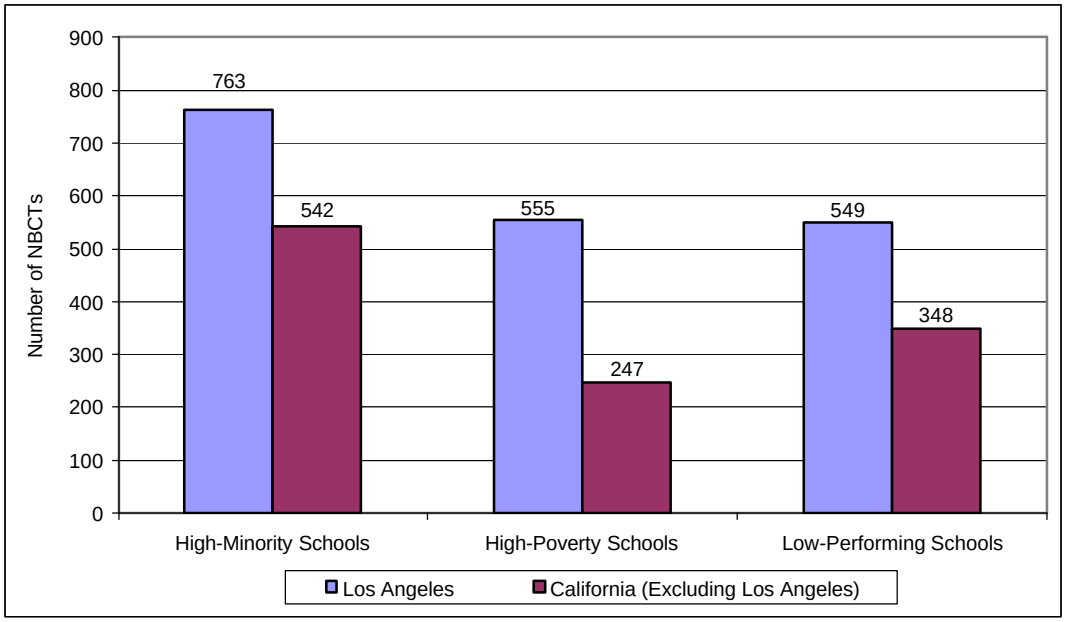
As Figure 6 illustrates, there are lower percentages of NBCTs in low-performing schools than in high-performing schools, except in California.

What Is Behind the California Difference?

So what causes California to be different from the other five states? If we look more closely at the distribution of NBCTs in California, we can begin to see the answer. The difference is Los Angeles. Figure 7 compares the number of NBCTs in the Los Angeles Unified School District (LAUSD) with the number of NBCTs in the rest of California (excluding LAUSD), focusing on NBCTs working in high-minority, high-poverty, and low-performing schools.

[7] We define high-performing schools as those with test scores in the top three deciles of performance of the state for two of the three years beginning with the 2000-2001 school year.

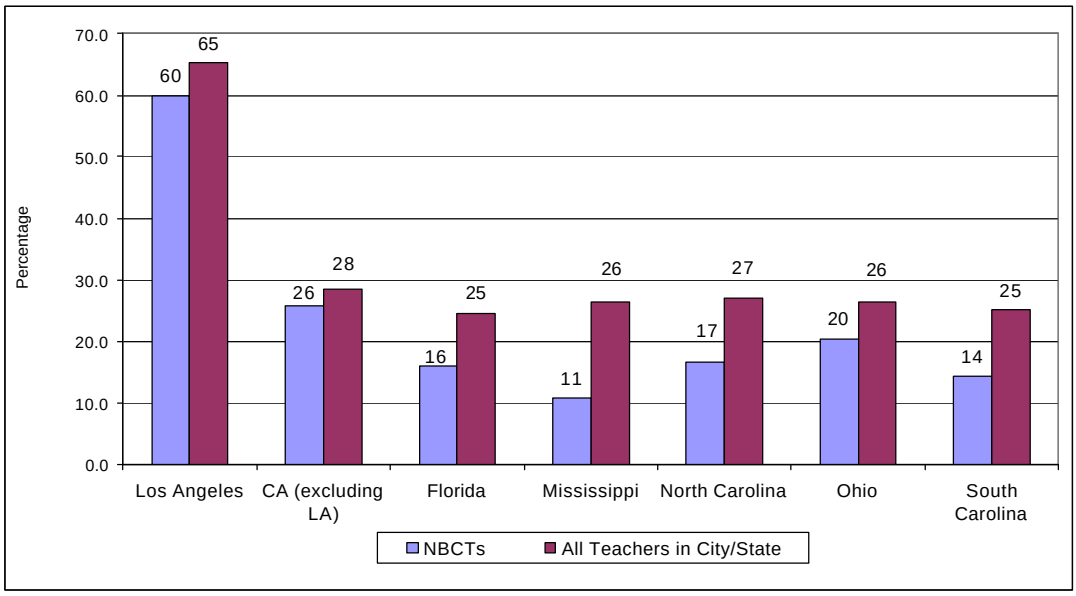
Figure 7. Number of NBCTs in Various Types of Schools in California and Los Angeles



Source: CDE (2004), NBPTS (2004c), NCES (2004); SRI analysis.

Los Angeles has 909 of the 2,261 NBCTs in the state. As Figure 7 shows, large numbers of these Los Angeles teachers teach in schools with high concentrations of poor, minority, and low-performing students. Indeed, when Los Angeles and California without Los Angeles are compared with our other five states in terms of the percentage of NBCTs teaching in low-performing schools, Los Angeles stands out as the exception. In addition, the gap between all teachers in low-performing schools and National Board Certified Teachers in low-performing schools is smaller in Los Angeles and California (without Los Angeles) than it is in the other states. Figure 8 illustrates these two points.

Figure 8. Percent of NBCTs in Low-Performing Schools in Los Angeles& Six States



Source: CDE (2004), FDOE (2004), MDE (2004), NBPTS (2004c), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); SRI analysis.

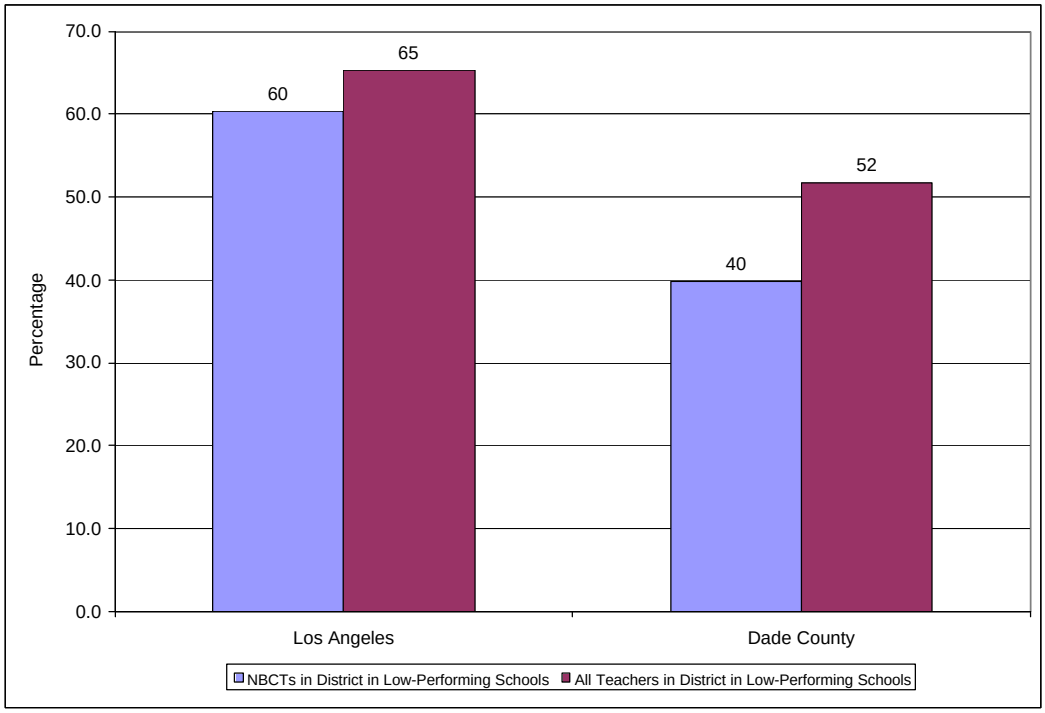
As Figure 8 illustrates, Los Angeles has a higher percentage of NBCTs teaching in low-performing schools when compared with the six states. Of course, Los Angeles has a higher proportion of low-performing schools than the six states. By our definition of low-performing as those schools in the bottom three deciles in two out of three years, 48% of Los Angeles schools are considered low-performing. By contrast, 22.9% of schools in California excluding LA, 23.4% of Florida schools, 25.2% of Mississippi schools, 27.4% of North Carolina schools, 23.5% of Ohio schools, and 26.1% of South Carolina schools are low-performing.

Figure 8 also points to a narrower gap in California and Los Angeles compared with other states in the percentage of National Board Certified Teachers and their non-Board certified colleagues working in low-performing schools. This difference may be partly attributable to the large financial incentives available to National Board Certified Teachers working in low-performing schools in California, which we discuss later. We also surmise that the intensive support programs for National Board candidates in Los Angeles account for some of the narrower gap. However, it may simply be that the narrower gap is a function of the large number of low-performing schools in Los Angeles.

Los Angeles Compared with Dade County

As an additional point of comparison, we explored whether the Los Angeles phenomenon is a big-city phenomenon. Could it be that other urban cores that "look" like Los Angeles display similar NBCT distribution patterns? We reviewed NBCT data from Dade County (Miami), Florida, a district with demographics similar to those of Los Angeles. Interestingly, the data show that although both Los Angeles and Dade County have significant percentages of NBCTs working in low-performing schools, NBCTs are better represented in Los Angeles than in Dade County. Figure 9 illustrates this point.

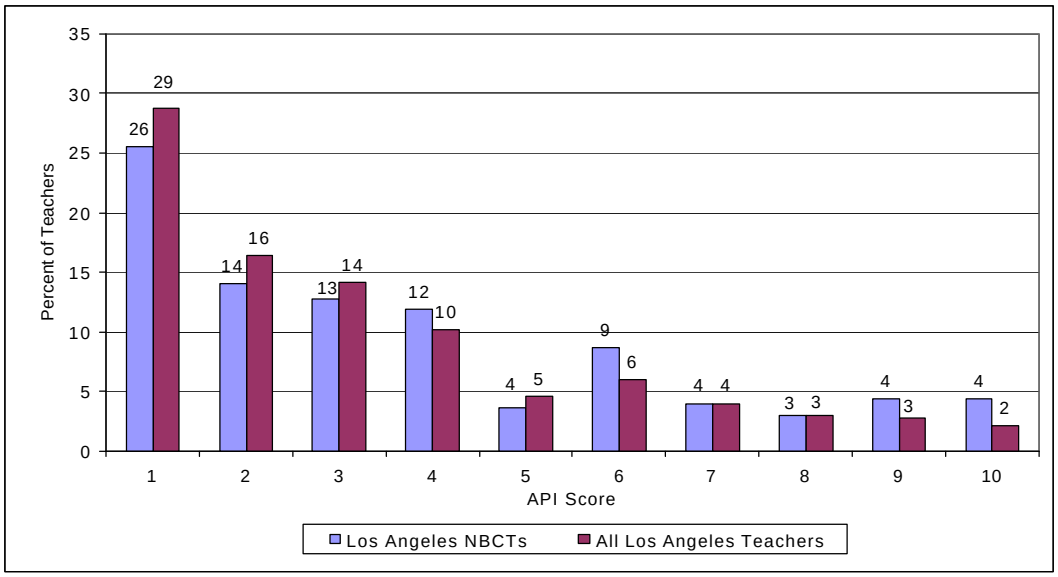
Figure 9. Percentage of NBCTs and All Teachers in Low-Performing Schools: Los Angeles and Dade County



Source: CDE (2004), FDOE (2004), NBPTS (2004c), NCES (2004); SRI analysis.

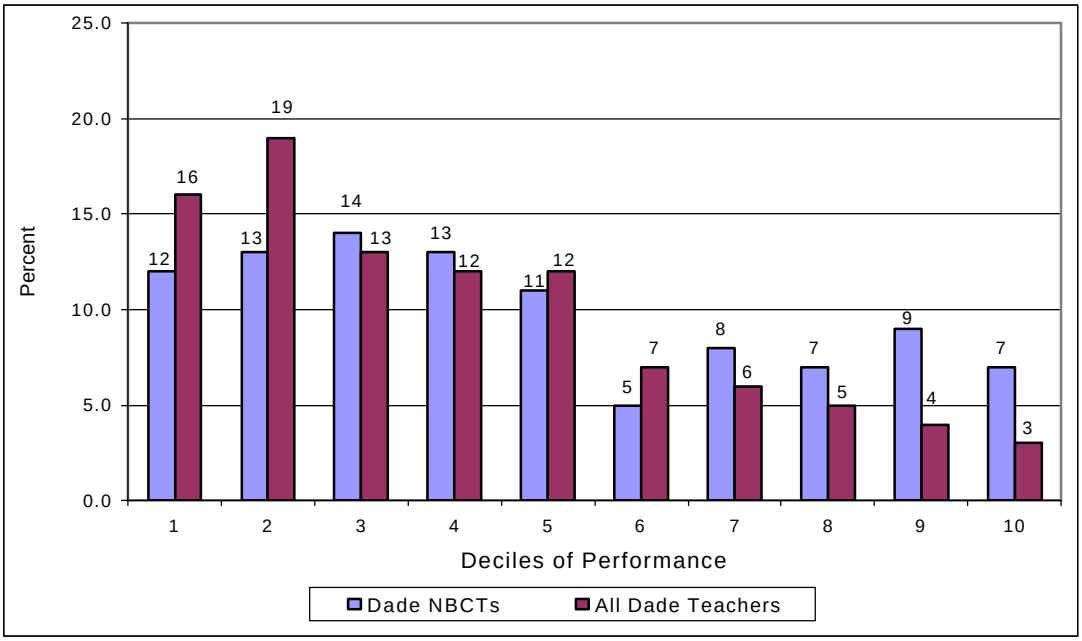
After noting the difference between the proportions of NBCTs in the two urban districts, we examined the proportions of NBCTs at each decile, compared with the distribution of all teachers in both districts by decile. Figures 10 and 11 show the result.[8]

Figure 10. Distribution of NBCTs and All Teachers in the Los Angeles Unified School District, by 2003 School Performance



Source: CDE (2004), NBPTS (2004c), NCES (2004); SRI analysis.

Figure 11. Distribution of NBCTs and All Teachers in Dade County, by School Performance



Source: FDOE (2004), NBPTS (2004c), NCES (2004); SRI analysis.

[8] Only schools with test scores for the 2002-2003 school year are represented in Exhibits 10 and 11; thus, the numbers do not add to 100. 7.9% of teachers in Los Angeles and 3.0% of teachers in Dade County taught in schools that did not report test scores in 2002-2003.

In Los Angeles, NBCTs are slightly underrepresented in the bottom two deciles of performance, but overall Los Angeles appears to have a more equitable distribution of NBCTs than does Dade County. Dade County does have a large number of NBCTs in its lowest-performing schools, but its NBCTs are underrepresented in the bottom two deciles of performance.

Los Angeles's Equity Gap

Despite the appearance of an equitable distribution of NBCTs in Los Angeles, a second look uncovers an important equity gap. Los Angeles Unified School District (LAUSD) is organized into 11 subdistricts; NBCTs are not distributed in proportion to their performance levels across these subdistricts. Although each district contains low-performing schools, District I, which encompasses South Central Los Angeles, has the highest concentration of low-performing schools and poverty. Table 1 shows the difference between District I and the rest of the Los Angeles subdistricts in terms of the percentage of NBCTs in the subdistrict, the percentage of schools that are in the bottom three deciles, and the percentage of schools in the bottom decile.

Table 1
Distribution of NBCTs in Los Angeles Unified School District Subdistricts

Subdistrict	Subdistrict Characteristics		Percentage of Los Angeles NBCTs in Subdistrict
	Percentage of Low-Performing Schools	Percentage of Schools with API 1 in 2003	
A	26.1	4.3	10.8
B	51.5	14.7	12.2
C	28.8	2.7	8.8
D	18.4	5.3	12.3
E	38.7	11.3	9.9
F	59.3	29.6	8.0
G	71.2	38.5	8.8
H	81.1	43.4	10.0
I	82.2	57.8	3.4
J	86.5	29.7	7.4
K	35.7	4.3	8.4

Source: CDE (2004), LAUSD (2004), NBPTS (2004c), NCES (2004); SRI analysis.

Although Los Angeles has a reasonable distribution of NBCTs overall, its lowest-performing subdistrict lags behind the other subdistricts in terms of the percentage of NBCTs.

Summing Up the Distribution of NBCTs

These analyses lead to several conclusions. First, NBCTs are not equitably distributed across schools that serve different populations of students. In the six states with the largest numbers of NBCTs, poor, minority, and low-performing students are far less likely than their more affluent, majority, higher-performing peers to benefit from the teaching of an NBCT. The significant exception to this pattern appears to be Los Angeles. The Los Angeles example suggests that it is possible to ensure a more equitable distribution of NBCTs. Although a close look at Los Angeles reveals remaining inequities, the district has succeeded in giving most of its lowest-performing students an equal chance to be taught by an NBCT.

How do districts and states encourage teachers to become National Board Certified, and are incentives targeted to particular kinds of schools or categories of teachers? We turn next to an examination of this issue.

Incentives and the Distribution of NBCTs

Incentives related to National Board Certification fall into three categories: (1) incentives for becoming a candidate for National Board Certification, (2) incentives for earning National Board Certification, and (3) incentives for becoming National Board Certified and teaching in a low-performing school. A review of available data shows that 31 states encourage teachers to pursue Board Certification by offering fee support. Because the certification process costs each candidate $2,300, funds to offset this expense can serve as a considerable inducement (NBPTS, 2004a).

Thirty-two states provide incentives in the form of salary supplements to teachers who earn Board Certification. These additional dollars most often are available to any NBCT, regardless of teaching assignment. Los Angeles, for example, provides a 15 percent salary boost to teachers who become Board Certified and then agree to fulfill additional district-determined responsibilities. A number of states also provide full or partial license reciprocity on the basis of National Board status, and 28 use National Board status as a proxy for full or partial license renewal.

In addition to state incentives for pursuing or earning Board Certification, more than 500 school districts provide incentives in the form of fee support and/or salary increases. Local incentives are often added to state incentives.

The third category is by far the most slender. With the exception of the substantial California incentive and a $1,500 annual bonus in Columbus, Ohio, for National Board Certified Teachers who agree to be placed in challenging schools, no state or local incentives are aimed at linking NBCTs and low-performing schools. Thus, although existing incentives are likely to have helped boost the overall number of NBCTs nationally, few have been designed to increase the number of NBCTs in schools that are most in need of outstanding teachers.

Given the significant policy initiatives for NBCTs in California, it is useful to review the scale of the incentives in that state. In 1998, California enacted a policy to pay any teacher who earned Board Certification a one-time $10,000 bonus. In July 2000, the state adopted a policy that awarded Board Certified Teachers who teach in low-performing schools (those below the 50th percentile on the API) a bonus of $20,000 over a period of four years. This program represents a deliberate policy strategy to encourage the redistribution of accomplished teachers. Recently, the state ended the $10,000 bonus for all NBCTs but retained the more targeted $20,000 award (*California Education Code*, 2004).

Unfortunately, the data currently available do not allow us to address some key questions of great concern to policy-makers. First, we cannot determine what role the incentives play in encouraging teachers to apply for National Board Certification. Second, we cannot determine whether incentives designed to encourage NBCTs to work in low-performing schools actually result in the movement of accomplished teachers. We are currently conducting a survey of NBCTs that should help answer some of these questions. However, anecdotal evidence from California, North Carolina, and Ohio suggests that the financial incentives are important inducements for prospective NBCTs.

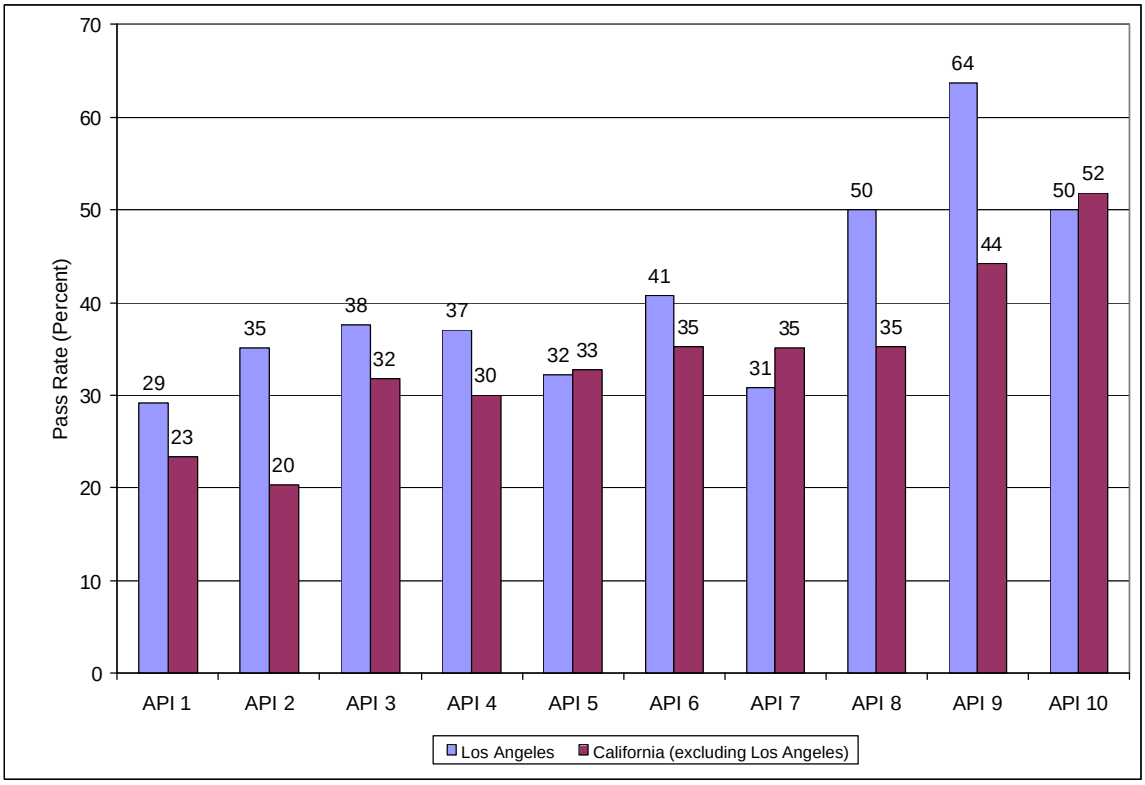
On the other hand, California's targeted incentive for NBCTs to work in low-performing schools may not be targeted enough to persuade accomplished teachers to relocate to the neediest schools. Part of the problem may be that since the state defines as low-performing all schools below the 50th percentile on the API, teachers in urban districts have no incentive to transfer to the neediest schools in the lowest deciles. For example, under California's definition of low-performing, more than 70% of teachers in Los Angeles qualify as working in low-performing schools and are eligible for the state bonus. At the same time, we do not know whether financial incentives alone are enough to entice accomplished teachers to move to the more challenging schools. If NBCTs from the case study schools that are part of our larger research study are any indication, proximity to home, decent working conditions, a strong and supportive principal, and collegial relationships are important assignment considerations for accomplished teachers.

Targeted Candidate Support

What is clear from our case studies, and what we suspect survey data will confirm, is that professional support (in the form of coaching, working with other candidates, release time, and principal support) for National Board candidates also serves as an important incentive. If Los Angeles is any indication, providing targeted support for National Board candidates already working in low-performing schools appears to have a salutary effect on the distribution of NBCTs. LAUSD teachers interested in pursuing Board Certification have two major support programs available to them. One is run jointly by the United Teachers Los Angeles (UTLA), the local teachers' union, and the district. The other operates under the auspices of the University of California at Los Angeles. Both programs make an effort to recruit to the Board Certification process teachers who are already teaching in low-performing schools and want to remain there. In other words, these programs substantially focus their efforts on increasing the capacity of teachers in low-performing schools to earn Board Certification.

These programs appear to increase the number of NBCTs in low-performing schools in the district, in part by achieving a high pass rate of teachers in these schools. As Figure 12 illustrates, higher percentages of Los Angeles teachers than of teachers in the rest of the state successfully complete the National Board Certification process.

Figure 12. Pass Rates in Los Angeles and the Rest of California



Source: CDE (2004), FDOE (2004), NBPTS (2003), NCES (2004); SRI analysis.

The high pass rates of Los Angeles teachers suggest that the support programs make a significant difference for National Board candidates, particularly for those in low-performing schools. Of course, the high pass rate may be partly a result of the support programs' counseling out candidates least likely to pass. Unfortunately, funding for the support programs serving LAUSD teachers may be ending with the district's next round of budget cuts.

Nevertheless, the Los Angeles experience is instructive. Overall, the mix of supports and financial incentives available to teachers in Los Angeles appears to point to a potential means for beginning to resolve the maldistribution of NBCTs in low-performing schools.

Incentives and the Transfer of NBCTs to Low-performing Schools

In examining incentives to obtain National Board Certification, it is important to differentiate among various types of strategies that are intended to serve different purposes. One strategy identifies and supports prospective NBCTs already working in low-performing schools. The support programs for National Board candidates in Los Angeles are examples of this approach.

Perhaps the more challenging strategy, however, is to devise incentives to lure NBCTs to low-performing schools and encourage them to remain there. The California example suggests that money by itself may not be an adequate inducement to encourage large numbers of high-quality teachers to move from higher-performing to low-performing schools. Support clearly is important. But, as we suggested earlier in the paper, so are working conditions. And working conditions are generally less favorable in low-performing than in higher-performing schools.

Realigning NBCT Distribution

National Board Certified Teachers have been designated as "accomplished." Policy-makers across the nation have determined that NBCTs ought to be a central part of any strategy to improve student achievement. But as data from our six states show, NBCTs are found disproportionately in higher-performing, not lower-performing schools, thus blunting their potential impact.

To be sure, the maldistribution of NBCTs is only one aspect of the larger problem of the skewed distribution of well-qualified teachers and the resulting inequitable distribution of resources among schools. But as policy-makers craft policies designed to reward teachers who earn National Board Certification, they need to be careful not to craft policies that make the distribution of resources even more inequitable.

The solution to attracting the best teachers to the most challenging schools would seem to lie in designing an appropriate package of incentives, as well as in taking steps to make these schools more attractive places for highly skilled teachers to teach. Unfortunately, most current incentives to become NBCTs seem to be doing little to realign the distribution of excellent teachers.

Rethinking Policy to Reshape Distribution

If as a nation we are truly committed to ensuring that all students achieve at high levels, then we must devise policies that will encourage the most highly skilled teachers to teach the most vulnerable students. Toward that end, it may be time to rethink incentive policies regarding NBCTs. This shift in approach will require the active participation of the National Board, of states, and of local school districts.

What Can The National Board Do?

When the National Board was in its formative years, the organization was faced with a long agenda of crucial and challenging tasks. Standards of accomplished practice needed to be developed for various fields and academic disciplines. In all, the Board now offers certification in 27 fields geared to subject matter and students' developmental levels.

The decision was made early that assessments to gauge National Board Certification candidates' achievement of these standards would be based on performance. Thus, the Board set about designing valid and reliable assessments that would require candidates to demonstrate their knowledge and skill in a variety of ways. Preliminary assessments were tested and retested to ensure that, to the extent possible, they were free from items or tasks that would disadvantage candidates on the basis of their race or teaching assignment.

In addition, the Board needed to build a constituency for support. Advanced certification for teaching was an entirely new concept. National Board officials were mindful that the fledgling organization would not survive long without a broad-based consensus about the credibility and significance of its work. The Board undertook a deliberate strategy to persuade states and districts to give National Board Certification policy standing through fee supports and salary incentives. The effort was targeted to securing advantages for teachers *generally* to pursue National Board Certification.

Early leaders of the National Board were aware of the likely maldistribution of NBCTs, but they viewed addressing the problem as a state and district responsibility. As this paper has demonstrated, little action has been taken on this front. National Board Certified Teachers remain concentrated in higher-performing schools. The time may now have come for the

National Board to take bolder steps, to begin to promote more targeted policies such as those aimed at ameliorating NBCT distribution inequities highlighted in this paper.

Although the National Board itself has no direct authority to impose policy actions, it can use its considerable influence, energy, and resources to encourage states and school districts to act in three areas: (1) to create greater equity in working conditions between high- and low-performing schools, (2) to increase financial incentives and supports for teachers who work in low-performing schools to seek National Board Certification, (3) and to increase targeted financial incentives to encourage teachers who hold National Board Certification to select low-performing schools.

This approach, advocating policies directed at reconfiguring the distribution of NBCTs, would take the National Board down a new and different policy direction. However, by remaining silent, the National Board gives its tacit approval to the continuing maldistribution of teachers. Speaking out seems a risk worth taking.

What Can States Do?

State policy can have a powerful influence on the distribution of National Board Certified Teachers, and therefore on resource allocation. States can and should enact policies that are designed to encourage National Board Certified Teachers to choose low-performing schools and to grow National Board Certified Teachers in low-performing schools. States can both target candidate support programs to teachers who want to teach in low-performing schools and dedicate a designated percentage of fee support dollars to such teachers. Where state policy creates barriers to interdistrict transfers by capping placement on salary schedules, such policies can be eliminated for National Board Certified Teachers who agree to teach in low-performing schools. And states can expand credential portability by issuing licenses for NBCTs who transfer from another state to low-performing schools.

Moreover, although money alone may not be the single deciding factor in National Board Certified Teachers' assignment preferences, fiscal incentives certainly provide a welcome and important boost. States should consider financial remuneration as part of a comprehensive package of incentives and supports. Failure to act only perpetuates serious inequities in resource allocation.

What Can Districts Do?

Districts hold the greatest sway over local barriers to NBCTs' choosing low-performing schools. In the more than 30 states in which teachers' working conditions are substantially shaped through the process of collective bargaining, the local teachers' union must play an active role in solving the NBCT maldistribution dilemma. Unions must be encouraged to negotiate new compensation structures and transfer and assignment procedures that encourage Board Certified Teachers to choose the most challenging schools.

All districts, whether subject to collective bargaining or not, can rededicate their efforts, and redirect some of their resources, to rectifying disparities in working conditions between high- and low-performing schools. They can develop and implement targeted support programs for National Board candidates who already teach in low-performing schools, and they can structure compensation so that NBCTs who agree to accept assignments in low-performing schools receive a salary boost.

A Collective Effort

Making low-performing schools more desirable workplaces for accomplished teachers will require the combined efforts of the National Board, of states, and of school districts. In addition to the kinds of supports and incentives we have suggested in this paper, there also needs to be a collective effort to change the pervasive occupational norm that relegates those who choose to teach in low-performing schools to lower professional status. If we are to succeed in providing the students in greatest need with the most expert teachers, it must become a badge of professional honor to teach in schools in the most desperate academic straits.

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Appendix

This appendix details the database of National Board Certified Teachers (NBCT), the creation of the Performance Index (PI), and data analysis methods used in the paper, *Sharing the Wealth: National Board Certified Teachers and the Schools that Need Them Most.*

Overview of Analysis and Methods

We began this analysis with a database of NBCTs in six states: California, Florida, Mississippi, North Carolina, Ohio, and South Carolina, which together represent more than 65 percent of all NBCTs nationwide (NBPTS, 2004b). In order to analyze the school placement of these NBCTs and the placements of all teachers in the state for comparison, we first needed to categorize schools based on student performance and school characteristics.

The differences in testing and accountability policies across the states made it impossible for us to directly equate tests and student achievement. Instead, we assigned a Performance Index score to all schools with measures of student performance already collected by state accountability systems. The Performance Index score compares schools with similar grade configurations and identifies them in deciles, with PI1 schools in the bottom 10% of performance and PI10 schools in the highest 10%. In some cases, we used *NCES Public Elementary/Secondary School Universe Data: 2001-2002* (NCES) to compare schools of similar levels for the creation of the PI. In other cases, we relied solely on state data. The specific calculations of the Performance Index were different in each state, based on the respective state's testing system and available data, and those methods are discussed in detail below.

After creating the PI in each state, we merged the state files with NCES data. We used this method because 1) the data files provided by the states were not always comprehensive, and we needed a complete list of schools for the NBCT and whole-state analyses; and 2) we needed additional school indicators, such student characteristics and number of teachers in each school, for our analysis of teacher distribution.

There were some schools in the NCES database that were not in the state accountability data, either because the school was not in existence in 2001-2002 or the school did not test at the grade level used to create the Performance Index. Similarly, there were some schools on the state lists that did not appear in the NCES database. The comparability of NCES data and state data is detailed in Tables 2A, 6A, 9A, 12A, and 16A. We used the NCES data for all school counts and analyses rather than the state level data, for consistency across states.

After the state data was merged with NCES, we defined a school as low performing if it fell in the bottom three deciles of the Performance Index for at least two of the past three years (2003, 2002, 2001). Schools with fewer than three years of data were included in our analysis, but by default are considered "Non-Low-Performing." Table 1A shows how many schools had a Performance Index score in at least two of three years, and thus had sufficient data to be defined as low-performing.

Table 1A
Number of Schools in Each State with Enough Data to Calculate School Performance

State	Schools with fewer than two years of data	Schools with two or more years of data	Percent of schools with two or more years of data	Total schools in state
California	1,394	7,522	84.4%	8,916
Florida	665	2,754	80.5%	3,419
Mississippi	190	847	81.7%	1,037
North Carolina	206	2,028	90.8%	2,234
Ohio	735	3,177	81.2%	3,912
South Carolina	129	1,016	88.7%	1,145
Total	3,319	17,344	83.9%	20,663

Source: CDE (2004), FDOE (2004), MDE (2004), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); SRI analysis.

With complete databases of NBCTs and all teachers in each state, combined with the Performance Index and school demographic information, we completed our analysis of teacher and NBCT distribution. The results of this analysis are detailed in Tables 21A-29A.

Database of National Board Certified Teachers

The database of National Board Certified Teachers, which is the foundation of this analysis, was first developed using information furnished by the National Board for Professional Teaching Standards (NBPTS). After the administration of our NBCT survey, which is part of our larger study of NBCTs in low-performing schools, follow-up was conducted and updated information was received about the school assignment of some NBCTs in the survey sample. The database used in this analysis is a combination of the data provided by the NBPTS and information obtained though the research team's survey administration through March 2004.

All of our analyses on NBCT distribution include only NBCTs who are teaching in schools and only those teachers who earned certification since 1998. Thus, the total number of NBCTs reported by the NBPTS may be higher than the numbers reported in analysis. For example, per NBPTS, 2,644 teachers in California have earned certification, but only 2,292 have been certified since 1998 and only 2,261 of those are working in schools.

Creation of the Performance Index

As discussed above, the creation of the Performance Index was different in each state. The sections below detail how the PI was created in each of the six states used in analysis: California, Florida, Mississippi, North Carolina, Ohio, and South Carolina.

California

In California, the creation of the Performance Index was relatively straightforward. The state's Academic Performance Index (API) compares schools at the same level (roughly elementary, middle, high school) in the state and ranks them by decile. For this study, any school with an API score of 1, 2, or 3 in two of three years was considered low performing. The state API data was merged with NCES 2001-2002 data for the analysis of NBCTs and California teacher distribution (Table 2A shows comparability of NCES and state data, and Table 22 shows the results of the distribution analyses).

Table 2A
Comparability of NCES and California State Data

	2003	2002	2001
In NCES, but not state data	193	30	1,439
In state data, but not NCES[9]	153	7	15
In both databases	8,723	8,886	7,477

Source: CDE (2004), NCES (2004); SRI analysis.

Table 3A below shows the number of schools in each school level (as defined by NCES[10]) that were assigned to each decile in 2003. Table 4A shows the percent of schools defined as "low-performing" (scoring in the bottom three deciles of student performance in two of three years), by school level.

[9] Only those schools with API scores are included in the counts. Note that the 2001 API contained far fewer schools than either the 2003 or the 2002 state data files (7,493 schools in 2001, 8,733 schools in 2002, and 8,966 schools in 2003).

[10] NCES defines school level in the following way: (1) Primary (low graded = PK through 03; high grade = PK through 08), (2) Middle (low grade = 04 through 07; high grade = 04 through 09), (3) High (low grade = 07 through 12; high grade = 12 only), and (4) Other (any other configuration not falling within the above three categories, including ungraded).

Table 3A
Percent of California Schools in Each Decile in the 2003 Performance Index, by School Level

	2003 Performance Index											N
School Level	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**N/A***	**Total**
Elementary School	9.5	9.4	9.5	9.8	9.2	9.9	9.6	9.9	9.3	9.6	4.3	5,494
Middle School	9.8	9.2	9.7	9.7	9.7	9.6	9.7	9.0	9.5	9.5	4.7	1,282
High School	6.2	5.1	5.2	5.2	4.8	5.5	5.0	5.0	5.4	5.1	47.5	1,708
Other	8.3	2.3	2.1	3.0	4.2	1.4	2.1	1.6	1.9	1.6	71.5	432
Total	8.8	8.2	8.3	8.6	8.2	8.6	8.4	8.4	8.2	8.4	15.9	8,916

Source: CDE (2004), NCES (2004); SRI analysis.
* N/A (No PI score is associated with school)

Table 4A
Percent of California Schools Defined as "Low-Performing," by School Level

School Level	Total Schools	LPS	Percent
Elementary School	5,494	1,534	27.9%
Middle School	1,282	368	28.7%
High School	1,708	282	16.5%
Other	432	27	6.3%
Total	8,916	2,211	24.8%

Source: CDE (2004), NCES (2004); SRI analysis.

Florida

Florida's Comprehensive Assessment Test (FCAT) includes assessments in reading and mathematics, which are administered to all students in Grades 3-10 each year, and a writing and science exam, which is given in grades 4, 5, 8, and 10. The state assigns students to one of five categories based on their performance, defining levels 3 and above as proficient for each grade level.

In order to develop the Performance Index for Florida, we created a composite score of the percent of students failing to meet proficiency in reading and math (levels 1 and 2). Schools with the lowest percentages of students in levels 1 and 2 were assigned the highest Performance Index score (10).

Achievement data for 2001 was only available on the state's website for 4th grade (reading), 5th grade (math), and 8th and 10th grade reading and math. To be consistent in the calculation for each year, we used rankings only for those grades and subjects in 2001, 2002, and 2003.

In order to compare schools with like scores, in creating the Performance Index, we only compared schools in which students had taken the same tests. Because of the limited 2001 data, we were only able to include schools in our analysis that had 4th, 5th 8th, or 10th grade, which excluded some schools that did not fall into those categories. Table 5A shows the test configurations and the number of schools that fall into each category.

Table 5A
Florida Schools, by 2003 Test Configurations[11]

Test data available	Number of schools
4th and 5th grade	1,686
4th, 5th, and 8th grade	83
4th, 5th, 8th, and 10th grade	89
8th grade only	524
8th and 10th grade	167
10th grade only	434
Total	2,983

Source: FDOE (2004), NCES (2004); SRI analysis.

To determine how many students did not meet the standards in a school, we created a weighted average across grades. Using the percentages of students scoring a 1 or 2 on the FCAT reading and math tests in grades 4, 5, 8, and 10, we determined how many total students in the school failed to meet proficiency. We only included in the denominator students who were counted as taking the test for a given grade level. Below is an example of the way that scores were weighted in schools with scores at multiple grades (the same weighting procedure was used to create average scores combining reading and math):

$$\frac{(\%\ \text{students Grade}_1)*(\#\ \text{students Grade}_1) + (\%\ \text{students Grade}_2)*(\#\ \text{students Grade}_2)}{(\#\ \text{students Grade}_1) + (\#\ \text{students Grade}_2)}$$

After the Performance Index was calculated for each year, the data was merged with NCES data for analysis (Table 6A shows comparability of NCES and state data).

[11] There were only 2,983 schools in the FDOE's 2003 data for grades 4, 5, 8, and 10. Per NCES, there are 3,419 schools in the state. The difference is largely because we were only able to include schools which tested in 4th, 5th, 8th or 10th grade. See Table 6 for details on the comparability of NCES and state data.

Table 6A
Comparability of NCES and Florida State Data

	2003	2002	2001
In NCES, but not state data	544	367	588
In state data, but not NCES[12]	80	11	12
In both databases	2,875	3,052	2,831

Source: FDOE (2004), NCES (2004); SRI analysis.

Table 7A below shows the number of schools in each school level (as defined by NCES) that were assigned to each decile in 2003. Table 8 shows the percent of schools defined as "low-performing" (scoring in the bottom three deciles of student performance in two of three years), by school level.

Table 7A
Percent of Florida Schools in Each Decile in the 2003 Performance Index, by School Level

	2003 Performance Index											N
School Level	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**N / A***	**Total**
Elementary School	8.8	9.2	9.0	9.2	9.1	9.4	9.4	9.3	9.4	9.6	7.6	1,780
Middle School	7.5	10.3	10.5	9.9	9.5	10.1	9.5	10.5	10.1	9.9	1.8	493
High School	4.4	6.4	8.0	8.5	8.3	10.1	9.2	10.1	9.4	9.6	13.8	426
Other	7.6	5.4	3.5	3.2	3.5	2.4	2.6	2.5	2.4	2.1	64.9	720
Total	7.8	8.2	8.0	8.0	7.9	8.1	8.0	8.2	8.0	8.1	19.6	3,419

Source: FDOE (2004), NCES (2004); SRI analysis.
* N/A (No PI score is associated with school)

[12] Only those schools with FCAT scores are included in the counts.

Table 8A
Percent of Florida Schools Defined as "Low-Performing," by School Level

School Level	Total Schools	LPS	Percent
Elementary School	1,780	472	26.5%
Middle School	493	136	27.6%
High School	426	83	19.5%
Other	720	108	15.0%
Total	3,419	799	23.4%

Source: FDOE (2004), NCES (2004); SRI analysis.

Mississippi

The Mississippi assessment program consists of the Mississippi Curriculum Test (MCT) in reading, language, and mathematics in grades 2-8; a writing assessment in grades 4 and 7; a norm-referenced test (TerraNova) in reading/language arts and mathematics in grade 6; and the Subject Area Testing Program (SATP) in high school for Algebra I, Biology I, US History, and English II.

In 2003, there were 213 schools that had both SATP scores and MCT scores. Since the data from the two tests is not comparable, we chose to use the NCES definitions of school level to determine which test would be used for the creation of the Performance Index. In 2003, 180 of the Mississippi schools with SATP scores in English and Algebra were defined as high schools by NCES. For these schools, the SATP was used to create the Performance Index. We used the MCT for the remaining 676 schools with available test data. Note that there are 1,037 schools in Mississippi per NCES. Table 9A details the comparability of NCES and state data.

On the MCT, the state assigns students to one of four categories based on their performance. Students in the lowest level of achievement demonstrate "minimal" proficiency. For non-high schools with MCT scores, the Performance Index was created by calculating a weighted average across grades based on the percentage of students that scored "minimal" on math and reading standards in grades 2-8. Using these percentages, we determined how many total students in the school failed to meet standards, and then created the Performance Index, assigning schools with the highest percentages of students at "minimal" proficiency the lowest Performance Index score (1). Below is an example of the way that scores were weighted in schools with scores at multiple grades (the same weighting procedure

was used to create average scores combining reading and math):

$$\frac{(\%\ \text{students Grade}_1)*(\#\ \text{students Grade}_1) + (\%\ \text{students Grade}_2)*(\#\ \text{students Grade}_2)}{(\#\ \text{students Grade}_1) + (\#\ \text{students Grade}_2)}$$

The SATP only reported percent passing in 2003 and 2002, so we created a composite of the mean scores in English and Algebra to create the Performance Index. Schools with the highest composite mean score were assigned the highest Performance Index score (10). Below is an example of the way that the composite scores were created for the SATP:

$$\frac{(\text{Mean Algebra})*(\#\ \text{Algebra Scores}) + (\text{Mean English})*(\#\ \text{English Scores})}{(\#\ \text{Algebra Scores}) + (\#\ \text{English Scores})}$$

After the Performance Index was calculated for each year, the data was merged with NCES 2001-2002 data for the analysis of NBCT and Mississippi teacher distribution (Table 9A shows the comparability of NCES and state data).

Table 9A
Comparability of NCES and Mississippi State Data

	2003	2002	2001
In NCES, but not state data	191	186	188
In state data, but not NCES[13]	10	4	4
In both databases	846	851	849

Source: MDE (2004), NCES (2004); SRI analysis.

Table 10A below shows the number of schools in each school level (as defined by NCES) that were assigned to each decile in 2003. Table 11A shows the percent of schools defined as "low-performing" (scoring in the bottom three deciles of student performance in two of three years), by school level.

[13] Only those schools with MCT or SATP scores are included in the counts.

Table 10A

Percent of Mississippi Schools in Each Decile in the 2003 Performance Index, by School Level

	2003 Performance Index											N
School Level	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**N/A***	**Total**
Elementary School	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	4.8	441
Middle School	9.3	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	2.2	183
High School	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.2	34.9	275
Other	5.1	5.1	5.1	4.3	4.3	5.8	5.1	5.1	3.6	2.9	53.6	138
Total	8.1	8.2	8.2	8.1	8.1	8.3	8.2	8.2	8.0	7.8	18.8	1,037

Source: MDE (2004), NCES (2004); SRI analysis.
* N/A (No PI score is associated with school)

Table 11A

Percent of Mississippi Schools Defined as "Low-Performing," by School Level

School Level	**Total Schools**	**LPS**	**Percent**
Elementary School	441	128	29.0%
Middle School	183	54	29.5%
High School	275	59	21.5%
Other	138	20	14.5%
Total	1,037	261	25.2%

Source: MDE (2004), NCES (2004); SRI analysis.

North Carolina

In North Carolina, we used the state's Performance Composite to create the Performance Index. This metric reflects the percentage of students in a school that achieve grade level proficiency, defined as a score of 3 out of 4 on 3rd through 8th End of Grade tests, or "proficient" on high school End of Course tests.

In order to ensure that we compared similar schools in creating the Performance Index, we used the NCES grade level definition and grouped elementary, middle, high schools, and "other" schools into deciles. After the Performance Index was calculated for each year, the data was merged with NCES 2001-2002 data for the analysis of NBCT and North Carolina teacher distribution (Table 12A shows comparability of NCES and state data).

Table 12A
Comparability of NCES and North Carolina State Data

	2003	2002	2001
In NCES, but not state data	148	240	240
In state data, but not NCES[14]	57	3	3
In both databases	2,086	1,994	1,994

Source: NCES (2004), NCPDI (2004); SRI analysis.

Table 13A below shows the number of schools in each school level (as defined by NCES) that were assigned to each decile in 2003. Table 14A shows the percent of schools defined as "low-performing" (scoring in the bottom three deciles of student performance in two of three years), by school level.

Table 13A
Percent of North Carolina Schools in Each Decile in the 2003 Performance Index, by School level

	2003 Performance Index											N
School Level	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**N / A ***	**Total**
Elementary School	9.4	9.3	10.0	9.3	9.3	9.9	9.7	9.3	9.4	9.7	4.8	1,316
Middle School	10.3	9.9	9.9	9.6	9.6	10.3	9.2	10.3	9.6	9.2	2.0	456
High School	9.7	9.5	9.5	10.3	9.7	10.6	9.2	9.5	9.7	8.3	4.0	349
Other	3.5	8.8	8.8	8.0	8.0	7.1	8.8	7.1	7.1	6.2	26.5	113
Total	9.4	9.4	9.8	9.4	9.4	9.9	9.4	9.4	9.4	9.2	5.2	2,234

Source: NCES (2004), NCPDI (2004); SRI analysis.
* N/A (No PI score is associated with school)

[14] Only those schools with a North Carolina state performance composite are included in the counts.

Table 14A
Percent of North Carolina Schools Defined as "Low-Performing," by School Level

School Level	Total Schools	LPS	Percent
Elementary School	1,316	371	28.2%
Middle School	456	132	28.9%
High School	349	94	26.9%
Other	113	15	13.3%
Total	2234	612	27.4%

Source: NCES (2004), NCPDI (2004); SRI analysis.

Ohio

From 2001 to 2003, the state of Ohio only tested students in grades 4, 6, and 9. In each of the state's grade level achievement tests, Ohio reports the percentage of students in each grade and subject who demonstrated proficiency on the standards.

In order to create the Performance Index, we only compared schools in which students had taken the same tests. Table 15A shows the test configurations and the number of schools that fall into each category. We computed the Performance Index score for each school by taking a simple average of the percent who demonstrated proficiency in reading and math in each of the tested grades (the scores could not be weighted, because the state did not provide the number of students taking each test).

Table 15A
Ohio Schools, by 2003 Test Configurations[15]

Grade Levels	Number of Schools	Percent at which a school is in the bottom three deciles
4th grade only	1,230	55.25% passing and below
6th grade only	494	52.45% passing and below
9th grade only	703	78.85% passing and below
4th and 6th grade	796	48.85% passing and below
4th, 6th, and 9th grade[16]	21	46.13% passing and below
Total	3,244	---

Source: ODE (2004); SRI analysis.

After the Performance Index was calculated for each year, the data was merged with NCES 2001-2002 data for the analysis of NBCT and Ohio teacher distribution (Table 16A shows comparability of NCES and state data, and Table 26A shows the results of the distribution analyses).

Table 16A
Comparability of NCES and Ohio State Data

	2003	2002	2001
In NCES, but not state data	282	282	282
In state data, but not NCES[17]	71	27	0
In both databases	3,630	3,630	3,630

Source: NCES (2004), ODE (2004); SRI analysis.

Table 17A below shows the number of schools in each school level (as defined by NCES) that were assigned to each decile in 2003. Table 18A shows the percent of schools defined as "low-performing" (scoring in the bottom three deciles of student performance in two of three years), by school level.

Table 17A
Percent of Ohio Schools in Each Decile in the 2003 Performance Index,

[15] There were only 3,244 schools in the ODE's 2003 data for grades 4, 6, and 9. Per NCES, there are 3,912 schools in the state. The difference is largely because we were only able to include schools which tested in 4th, 6th, or 9th grade. See Table 6 for details on the comparability of NCES and state data.

[16] Note that there are some schools in this category that have 6th and 9th grades and other that have all three testing levels. There were so few schools in this category that it made sense to consolidate the two.

[17] Only those schools Ohio state with assessment scores are included in the counts. The state data retrieved from the website contained all three years in one file.

by School Level

	2003 Performance Index											N
School Level	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**N/A**	**Total**
Elementary School	8.3	8.7	8.6	8.9	8.5	8.8	8.6	8.7	8.6	8.7	13.6	2,175
Middle School	6.3	6.8	8.3	7.3	7.5	7.3	7.9	7.5	7.4	8.1	25.6	731
High School	7.1	8.3	8.8	8.8	8.7	9.1	8.5	8.7	8.9	9.1	14.1	761
Other	13.1	3.7	2.4	2.9	2.4	2.9	2.9	2.9	4.1	2.0	60.8	245
Total	8.0	8.0	8.2	8.2	7.9	8.2	8.1	8.1	8.1	8.2	18.9	3,912

Source: NCES (2004), ODE (2004); SRI analysis.
* N/A (No PI score is associated with school)

Table 18A

Percent of Ohio Schools Defined as "Low-Performing," by School Level

School Level	Total Schools	LPS	Percent
Elementary School	2,175	552	25.4%
Middle School	731	144	19.7%
High School	761	183	24.0%
Other	245	39	15.9%
Total	3,912	918	23.5%

Source: NCES (2004), ODE (2004); SRI analysis.

South Carolina

The Palmetto Achievement Challenge Tests (PACT) are administered in mathematics and English language arts to South Carolina students in grades 3 through 8. According to the state, a student who performs at the "below basic" level on the PACT has not met minimum expectations for student performance based on the state curriculum standards. South Carolina tests high school students using the Exit Exam.

The state performance data was available on the website by grade level, with no comprehensive list of schools. In order to combine the scores from all schools, we merged the SC data with NCES data to create the Performance Index.

There were a few schools that had both Exit Exam and PACT scores (only 22 schools in 2001). To create the Performance Index, we used the Exit Exam for all schools identified by NCES as high schools, and used the PACT scores for all others. Using the high school Exit Exam, we ranked the

schools in deciles, assigning the highest Performance Index scores to schools with the highest pass rates.

For non-high schools with PACT scores, we calculated the Performance Index by creating a weighted average across grades based on the percentage of students that scored "below basic" on math and reading standards in grades 3 through 8. Using these percentages, we determined how many total students in the school failed to meet proficiency, and then created the Performance Index, assigning schools with the highest percentages of students at "below basic" the lowest Performance Index score (1). Below is an example of the way that scores were weighted in schools with scores at multiple grades (the same weighting procedure was used to create average scores combining reading and math):

$$\frac{(\%\ \text{students Grade}_1)*(\#\ \text{students Grade}_1) + (\%\ \text{students Grade}_2)*(\#\ \text{students Grade}_2)}{(\#\ \text{students Grade}_1) + (\#\ \text{students Grade}_2)}$$

Table 19A below shows the number of schools in each school level (as defined by NCES) that were assigned to each decile in 2003. Table 20A shows the percent of schools defined as "low-performing" (scoring in the bottom three deciles of student performance in two of three years), by school level.

Table 19A

Percent of South Carolina Schools in Each Decile in the 2003 Performance Index, by School Level

	2003 Performance Index											N
School Level	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**N/A***	**Total**
Elementary School	9.2	9.2	9.2	9.4	9.4	9.2	9.2	9.4	9.0	9.2	7.6	619
Middle School	9.8	10.2	10.2	9.8	9.8	9.8	9.8	9.4	10.2	9.8	1.6	256
High School	7.7	7.7	7.7	7.3	7.3	7.3	7.7	7.7	7.3	7.3	25.4	248
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	22
Total	8.8	8.9	8.9	8.8	8.8	8.7	8.8	8.8	8.7	8.7	11.9	1,145

Source: NCES (2004), SCDE (2004); SRI analysis.

* N/A (No PI score is associated with school)

Table 20A
Percent of South Carolina Schools Defined as "Low-Performing," by School Level

Level (NCES)	Total Schools	LPS	Percent
Elementary School	619	173	27.9%
Middle School	256	74	28.9%
High School	248	50	20.2%
Other	22	2	9.1%
Total	1145	299	26.1%

Source: NCES (2004), SCDE (2004); SRI analysis.

Results of Analyses

This section will cover the results of the distribution analysis using the Performance Indices in each state, as well as the additional analysis completed on NBCT subdistrict distribution and NBCT pass rates in the Los Angeles Unified School District.

Results of Teacher Distribution Analysis

For the analyses of teacher and NBCT distribution, we chose to categorize schools in the following ways:

- Schools with 75% or more minority students – as defined by NCES
- Schools with 75% or more students eligible for free or reduced priced lunch –as defined by NCES
- Low-Performing Schools – schools with a PI score of 1-3 in two of three years (calculation of PI defined in detail above)
- High Performing Schools – schools with a PI score of 8-10 in two of three years (calculation of PI defined in detail above)
- 2003 PI – schools with 2003 PI scores

After these variables were created, we calculated the number of schools in each category (TableA 21) and the number of teachers and NBCTs teaching in each type of school in each state (Tables 22A-27A). Note that in all states, we ranked schools based on their performance, which means that roughly 10% of schools with available test scores are in each decile in each year. In subsequent analyses, we report the number of teachers in each state who teach in such schools. If a state has uneven staffing distributions, schools in each decile could have far fewer or far more than 10% of teachers.

Table 21A
Distribution of Schools in All Six States

	California		Florida		Mississippi		North Carolina		Ohio		South Carolina	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Number of Schools	8,916	*	3,419	*	1,037	*	2,234	*	3,912	*	1,145	*
Schools with 75% or more students eligible for Free and Reduced Price Lunch	2,139	24.0	630	18.4	354	34.1	312	14.0	398	10.2	248	21.7
Schools with 75% or more minority students	3,407	38.2	736	21.5	330	31.8	340	15.2	381	9.7	229	20.0
Low performing schools	2,211	24.8	799	23.4	261	25.2	612	27.4	918	23.5	299	26.1
High performing schools	2,224	24.9	811	23.7	249	24.0	609	27.3	927	23.7	290	25.3
PI 1 schools (2003)	788	8.8	268	7.8	84	8.1	209	9.4	313	8.0	101	8.8
PI 2 schools (2003)	732	8.2	281	8.2	85	8.2	210	9.4	312	8.0	102	8.9
PI 3 schools (2003)	743	8.3	273	8.0	85	8.2	219	9.8	320	8.2	102	8.9
PI 4 schools (2003)	763	8.6	273	8.0	84	8.1	211	9.4	321	8.2	101	8.8
PI 5 schools (2003)	730	8.2	270	7.9	84	8.1	210	9.4	311	7.9	101	8.8
PI 6 schools (2003)	767	8.6	278	8.1	86	8.3	222	9.9	321	8.2	100	8.7
PI 7 schools (2003)	745	8.4	274	8.0	85	8.2	211	9.4	318	8.1	101	8.8
PI 8 schools (2003)	751	8.4	279	8.2	85	8.2	211	9.4	317	8.1	101	8.8
PI 9 schools (2003)	734	8.2	275	8.0	83	8.0	210	9.4	318	8.1	100	8.7
PI 10 schools (2003)	745	8.4	277	8.1	81	7.8	205	9.2	322	8.2	100	8.7
Number of schools with no PI scores Associated (2003)	1,418	15.9	671	19.6	195	18.8	116	5.2	739	18.9	136	11.9

Source: CDE (2004), FDOE (2004), MDE (2004), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); SRI analysis.

Table 22A
National Board Certified Teachers and All Teachers in California

	NBCTs		All California Teachers		NBCTs Excluding LAUSD*		All Calf. Teachers (Excluding LAUSD)		NBCTs in LAUSD		All Teachers in LAUSD	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Teachers	2,261	*	292,821.8	*	1,352	*	257,438.2	*	909	*	35,383.6	*
Teachers in Schools with 75% or more students eligible for Free & Reduced Price Lunch	802	35.5	77,841.1	26.6	247	18.3	55,231.8	21.5	555	61.1	22,609.3	63.9
Teachers in Schools with 75% or more minority students	1,305	57.7	132,138.9	45.1	542	40.1	101,443.2	39.4	763	83.9	30,695.7	86.8
Teachers in low performing schools	897	39.7	96,305.7	32.9	348	25.7	73,204.9	28.4	549	60.4	23,100.8	65.3
Teachers in high performing schools	633	28.0	74,170.1	25.3	525	38.8	71,629.0	27.8	108	11.9	2,541.1	7.2
Teachers in PI 1 schools (2003)	336	14.9	33,524.3	11.4	104	7.7	23,331.1	9.1	232	25.5	10,193.2	28.8
Teachers in PI 2 schools (2003)	267	11.8	31,690.7	10.8	139	10.3	25,880.1	10.1	128	14.1	5,810.6	16.4
Teachers in PI 3 schools (2003)	228	10.1	29,670.9	10.1	112	8.3	24,668.7	9.6	116	12.8	5,002.2	14.1
Teachers in PI 4 schools (2003)	215	9.5	29,027.4	9.9	107	7.9	25,435.2	9.9	108	11.9	3,592.2	10.2
Teachers in PI 5 schools (2003)	143	6.3	24,952.3	8.5	110	8.1	23,319.5	9.1	33	3.6	1,632.8	4.6
Teachers in PI 6 schools (2003)	191	8.4	27,222.7	9.3	112	8.3	25,086.0	9.7	79	8.7	2,136.7	6.0
Teachers in PI 7 schools (2003)	143	6.3	24,517.7	8.4	108	8.0	23,078.7	9.0	35	3.9	1,439.0	4.1
Teachers in PI 8 schools (2003)	124	5.5	24,605.3	8.4	93	6.9	23,576.5	9.2	31	3.4	1,028.8	2.9
Teachers in PI 9 schools (2003)	200	8.8	25,000.3	8.5	160	11.8	24,020.6	9.3	40	4.4	979.7	2.8
Teachers in PI 10 schools (2003)	312	13.8	25,084.1	8.6	272	20.1	24,314.5	9.4	40	4.4	769.6	2.2
Number of Teachers with no PI Associated (2003)	102	4.5	17,526.1	6.0	35	2.6	14,727.3	5.7	67	7.4	2,798.8	7.9

Source: CDE (2004), NCES (2004), NBPTS (2004c); SRI analysis. * LAUSD (Los Angeles Unified School District

Table 23A
National Board Certified Teachers and All Teachers in Florida

	NBCTs		Florida Teachers		NBCTs Excluding Dade*		FL Teachers Excluding Dade		NBCTs in Dade		All Teachers in Dade	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Teachers	4,487	*	138,473.0	*	3,899	*	119,207.0	*	588	*	19,266.0	*
Teachers in Schools with 75% or more students eligible for Free and Reduced Price Lunch	492	11.0	23,231.0	16.8	294	7.5	14,970.0	12.6	198	33.7	8,261.0	42.9
Teachers in Schools with 75% or more minority students	766	17.1	30,943.0	22.3	280	7.2	14,132.0	11.9	486	82.7	16,811.0	87.3
Teachers in low performing schools	721	16.1	33,999.0	24.6	487	12.5	24,042.0	20.2	234	39.8	9,957.0	51.7
Teachers in high performing schools	1,928	43.0	41,848.0	30.2	1,779	45.6	39,292.0	33.0	149	25.3	2,556.0	13.3
Teachers in PI 1 schools (2003)	157	3.5	8,376.0	6.0	89	2.3	5,254.0	4.4	68	11.6	3,122.0	16.2
Teachers in PI 2 schools (2003)	266	5.9	12,597.0	9.1	191	4.9	8,922.0	7.5	75	12.8	3,675.0	19.1
Teachers in PI 3 schools (2003)	334	7.4	13,364.0	9.7	250	6.4	10,856.0	9.1	84	14.3	2,508.0	13.0
Teachers in PI 4 schools (2003)	335	7.5	13,582.0	9.8	259	6.6	11,328.0	9.5	76	12.9	2,254.0	11.7
Teachers in PI 5 schools (2003)	412	9.2	13,219.0	9.5	347	8.9	10,933.0	9.2	65	11.1	2,286.0	11.9
Teachers in PI 6 schools (2003)	434	9.7	13,676.0	9.9	402	10.3	12,289.0	10.3	32	5.4	1,387.0	7.2
Teachers in PI 7 schools (2003)	483	10.8	14,235.0	10.3	437	11.2	13,043.0	10.9	46	7.8	1,192.0	6.2
Teachers in PI 8 schools (2003)	578	12.9	14,980.0	10.8	540	13.8	14,108.0	11.8	38	6.5	872.0	4.5
Teachers in PI 9 schools (2003)	663	14.8	14,184.0	10.2	609	15.6	13,338.0	11.2	54	9.2	846.0	4.4
Teachers in PI 10 schools (2003)	705	15.7	13,032.0	9.4	662	17.0	12,486.0	10.5	43	7.3	546.0	2.8
Number of Teachers with no PI Associated (2003)	120	2.7	7,228.0	5.2	113	2.9	6,650.0	5.6	7	1.2	578.0	3.0

Source: FDOE (2004), NCES (2004), NBPTS (2004c); SRI analysis. *Dade (Dade County School District)*

Table 24A

National Board Certified Teachers and All Teachers in Mississippi

	NBCTs		Mississippi Teachers	
	#	%	#	%
Total Teachers	1,567	*	31,126.6	*
Teachers in Schools with 75% or more students eligible for Free and Reduced Price Lunch	279	17.8	10,720.2	34.4
Teachers in Schools with 75% or more minority students	248	15.8	9,992.4	32.1
Teachers in low performing schools	167	10.7	8,178.6	26.3
Teachers in high performing schools	691	44.1	9,290.7	29.8
Teachers in PI 1 schools (2003)	39	2.5	2,744.8	8.8
Teachers in PI 2 schools (2003)	48	3.1	2,604.8	8.4
Teachers in PI 3 schools (2003)	69	4.4	2,764.2	8.9
Teachers in PI 4 schools (2003)	90	5.7	2,717.8	8.7
Teachers in PI 5 schools (2003)	173	11.0	2,719.6	8.7
Teachers in PI 6 schools (2003)	160	10.2	3,067.4	9.9
Teachers in PI 7 schools (2003)	166	10.6	2,982.9	9.6
Teachers in PI 8 schools (2003)	220	14.0	3,391.0	10.9
Teachers in PI 9 schools (2003)	238	15.2	3,118.8	10.0
Teachers in PI 10 schools (2003)	232	14.8	2,785.3	8.9
Number of Teachers with no PI Associated (2003)	132	8.4	2,230.0	7.2

Source: MDE (2004), NCES (2004), NBPTS (2004c); SRI analysis.

Table 25A
National Board Certified Teachers and All Teachers in North Carolina

	NBCTs		North Carolina Teachers	
	#	%	#	%
Total Teachers	5,704	*	88,123.0	*
Teachers in Schools with 75% or more students eligible for Free and Reduced Price Lunch	331	5.8	9,372.0	10.6
Teachers in Schools with 75% or more minority students	354	6.2	11,260.0	12.8
Teachers in low performing schools	947	16.6	23,372.0	26.5
Teachers in high performing schools	2,257	39.6	26,165.0	29.7
Teachers in PI 1 schools (2003)	198	3.5	6,816.0	7.7
Teachers in PI 2 schools (2003)	304	5.3	8,160.0	9.3
Teachers in PI 3 schools (2003)	441	7.7	8,351.0	9.5
Teachers in PI 4 schools (2003)	515	9.0	8,572.0	9.7
Teachers in PI 5 schools (2003)	521	9.1	8,741.0	9.9
Teachers in PI 6 schools (2003)	633	11.1	9,329.0	10.6
Teachers in PI 7 schools (2003)	648	11.4	8,969.0	10.2
Teachers in PI 8 schools (2003)	660	11.6	8,904.0	10.1
Teachers in PI 9 schools (2003)	736	12.9	9,235.0	10.5
Teachers in PI 10 schools (2003)	855	15.0	8,324.0	9.4
Number of Teachers with no PI Associated (2003)	193	3.4	2,722.0	3.1

Source: NCES (2004), NBPTS (2004c), NCDPI (2004); SRI analysis.

Table 26A
National Board Certified Teachers and All Teachers in Ohio

	NBCTs		Ohio Teachers	
	#	%	#	%
Total Teachers	1731	*	112,850.2	*
Teachers in Schools with 75% or more students eligible for Free and Reduced Price Lunch	98	5.7	11,237.1	10.0
Teachers in Schools with 75% or more minority students	137	7.9	11,974.3	10.6
Teachers in low performing schools	353	20.4	29,648.4	26.3
Teachers in high performing schools	582	33.6	29,134.7	25.8
Teachers in PI 1 schools (2003)	109	6.3	9,885.9	8.8
Teachers in PI 2 schools (2003)	120	6.9	10,292.4	9.1
Teachers in PI 3 schools (2003)	137	7.9	9,182.4	8.1
Teachers in PI 4 schools (2003)	106	6.1	9,267.2	8.2
Teachers in PI 5 schools (2003)	131	7.6	8,748.3	7.8
Teachers in PI 6 schools (2003)	137	7.9	8,975.1	8.0
Teachers in PI 7 schools (2003)	138	8.0	9,316.0	8.3
Teachers in PI 8 schools (2003)	141	8.1	9,684.5	8.6
Teachers in PI 9 schools (2003)	199	11.5	10,044.2	8.9
Teachers in PI 10 schools (2003)	255	14.7	9,966.1	8.8
Number of Teachers with no PI Associated (2003)	258	14.9	17,488.1	15.5

Source: NCES (2004), NBPTS (2004c), ODE (2004); SRI analysis.

Table 27A
National Board Certified Teachers and All Teachers in South Carolina

	NBCTs		South Carolina Teachers	
	#	%	#	%
Total Teachers	3,056	*	45,897.8	*
Teachers in Schools with 75% or more students eligible for Free and Reduced Price Lunch	295	9.7	8,190.4	17.8
Teachers in Schools with 75% or more minority students	266	8.7	80,51.5	17.5
Teachers in low performing schools	436	14.3	11,519.6	25.1
Teachers in high performing schools	1,266	41.4	13,683.1	29.8
Teachers in PI 1 schools (2003)	102	3.3	3,695.2	8.1
Teachers in PI 2 schools (2003)	156	5.1	3,996.7	8.7
Teachers in PI 3 schools (2003)	213	7.0	3,915.9	8.5
Teachers in PI 4 schools (2003)	289	9.5	4,535.7	9.9
Teachers in PI 5 schools (2003)	269	8.8	4,182.1	9.1
Teachers in PI 6 schools (2003)	342	11.2	4,800.1	10.5
Teachers in PI 7 schools (2003)	331	10.8	4,410.8	9.6
Teachers in PI 8 schools (2003)	396	13.0	4,665.3	10.2
Teachers in PI 9 schools (2003)	299	9.8	4,647.2	10.1
Teachers in PI 10 schools (2003)	493	16.1	4,360.6	9.5
Number of Teachers with no PI Associated (2003)	166	5.4	2,688.2	5.9

Source: NCES (2004), NBPTS (2004c), SCDE (2004); SRI analysis.

Analysis of NBCTs in Los Angeles Subdistricts

In order to compare the number of NBCTs in each of the 11 subdistricts, we used the NCES data and merged in LAUSD files that contained sub-district identifiers for each school. This NCES data, rather than the district files, was used to generate the following counts:

Table 28A

Distribution of Schools in Los Angeles Subdistricts

	NBCTs		Total Teachers		Schools with API 1 in 2003		Low-Performing Schools		Students Eligible for Free/Reduced Lunch		Minority Students		Total Students	Total Schools
Sub-district	#	%	#	%	#	%	#	%	#	%	#	%	#	#
A	98	10.8	3,289.8	9.3	3	4.3	18	26.1	37,236	51.8	53,496	74.4	71,946	69
B	111	12.2	3,941.0	11.1	10	14.7	35	51.5	64,365	81.1	71,650	90.3	79,348	68
C	80	8.8	3,419.5	9.7	2	2.7	21	28.8	45,188	63.3	54,044	75.7	71,374	73
D	112	12.3	2,841.3	8.0	4	5.3	14	18.4	27,432	47.1	45,549	78.2	58,268	76
E	90	9.9	3,413.5	9.6	7	11.3	24	38.7	54,167	77.0	64,533	91.8	70,313	62
F	73	8.0	3,100.4	8.8	16	29.6	32	59.3	51,588	81.9	61,655	97.8	63,022	54
G	80	8.8	2,957.3	8.4	20	38.5	37	71.2	48,273	80.2	59,993	99.6	60,222	52
H	91	10.0	3,389.0	9.6	23	43.4	43	81.1	60,903	86.2	70,504	99.8	70,627	53
I	31	3.4	2,634.7	7.4	26	57.8	37	82.2	45,547	82.7	55,049	99.9	55,097	45
J	67	7.4	2,976.6	8.4	11	29.7	32	86.5	54,854	86.9	62,701	99.3	63,113	37
K	76	8.4	3,319.8	9.4	3	4.3	25	35.7	44,915	65.6	62,254	90.9	68,495	70
No district	0	0.0	100.7	0.3	0	0.0	0	0.0	415	12.8	2,884	89.2	3,233	4
Total	909	100.0	35,383.6	100.0	125	18.9	318	48.0	534,883	72.8	664,312	90.4	735,058	663

Source: CDE (2004), LAUSD (2004), NCES (2004); SRI analysis.

Analysis of NB Candidate Pass Rates in California

In order to compare the number of NBCTs at each API level, we used a database of 2001-2002 NBCTs (which was provided to SRI as part of the SRI study, *Exploring the Differences in Minority and Majority Teachers' Decisions about and Preparation for NBPTS Certification*), and used the NCES identifiers within to link each National Board Candidate's school to the 2001-2002 California API scores. On the file provided by NBPTS, there were three categories of certification status: Not achieved, Achieved, and blank. Blank records indicate that the candidate is still in the certification process (has not yet completed the requirements). For the purposes of our analyses, we include both blank and Not Achieved in the denominator when calculating pass rates. Table 29A shows the total number of teachers attempting certification in 2001-2002, as well as the percentage of teachers in each certification status category.

Table 29A
Pass Rates of National Board Candidates in Los Angeles and the Rest of California

	Los Angeles Candidates				California Candidates (Excluding LA)			
API score	**% Achieved**	**% Not Achieved**	**% Blank**	**Total #**	**% Achieved**	**% Not Achieved**	**% Blank**	**Total #**
1	29.1	52.5	18.4	158	23.4	58.4	18.2	154
2	35.2	52.3	12.5	128	20.4	58.3	21.3	211
3	37.6	50.6	11.8	85	31.8	48.8	19.4	129
4	37.0	48.1	14.8	54	30.0	45.5	24.5	110
5	32.3	58.1	9.7	31	32.8	52.7	14.5	131
6	40.7	44.4	14.8	27	35.3	52.9	11.8	102
7	30.8	61.5	7.7	13	35.2	49.1	15.7	108
8	50.0	30.0	20.0	10	35.2	45.7	19.0	105
9	63.6	27.3	9.1	11	44.2	45.3	10.5	86
10	50.0	40.0	10.0	10	51.8	37.1	11.2	170
No API Score	44.4	44.4	11.1	27	34.5	44.8	20.7	58
Total	35.6	50.4	14.1	554	33.2	49.7	17.1	1364

Source: CDE (2004), NBPTS (2003), NCES (2004); SRI analysis.

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