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EDUCATION POLICY ANALYSIS ARCHIVES

A peer-reviewed scholarly journal

Editor: Sherman Dorn

College of Education

University of South Florida

Volume 15 Number 7

April 3, 2006

ISSN 1068–2341

Making Use of What Teachers Know and Can Do: Policy, Practice, and National Board Certification¹

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Citation: Koppich, J. E., Humphrey, D. C., & Hough, H. J. (2007). Making use of what teachers know and can do: Policy, practice, and national board certification. *Education Policy Analysis Archives*, 15(7). Retrieved [date] from <http://epaa.asu.edu/epaa/v15n7/>.

Abstract

This paper is the culmination of a three-year study that sought to frame an initial answer to the question, “What are the circumstances and conditions under which National Board Certified teachers (NBCTs) can have a positive impact on low-performing schools?” The study, funded by Atlantic Philanthropies, was part of the National Board’s more comprehensive effort to answer a number of research questions about the impacts of board certification and board certified teachers in schools and districts across the country.

Keywords: Board certification; teacher certification; advanced certification; teacher quality

¹ Research for this article was conducted by the authors and H. Alix Gallagher, Kristin R. Bosetti, and Katherine Baisden of SRI International, Ida Walqui, Ann Marie Wiese, and Rose Vlichez of WestEd, and Barnett Berry, Dylan Johnson, and Diana Montgomery of the Center for Teaching Quality.



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Aprovechando lo que los Docentes Saben y Pueden Hacer: Políticas, Prácticas y acreditación por el National Board

Resumen

Este trabajo es el fruto de tres años de estudio que intento enmarcar una respuesta inicial a la pregunta: ¿Cuáles son las circunstancias y condiciones bajo las cuales docentes acreditados por el National Board tienen impactos positivos en escuelas de bajo desempeño? Este estudio financiado por Atlantic Philanthropies, es parte de un esfuerzo más general del National Board para contestar interrogantes acerca del impacto que las acciones del National Board y de los docentes con credenciales del National Board tienen en distritos escolares de los Estados Unidos

Palabras clave: certificados del National Board; docentes con certificados del National Board, certificación avanzada, calidad docente.

Introduction

The National Board for Professional Teaching Standards (NBPTS) was launched in 1987 as an independent, nonprofit organization with a mission to develop standards and assessments for advanced teacher certification. The architecture for the NBPTS was nearly a decade in the making; the Board certified its first teacher in 1993. By December 2005, more than 47,500 teachers had become board certified (National Board for Professional Teaching Standards, 2005). Many states and districts have openly acknowledged, with monetary incentives and other kinds of encouragement and recognition, board certification as a means for improving teacher quality and boosting student achievement.

A growing body of research links high-quality teaching to student academic success. In a Texas study, nearly half the variation in test scores between white and African-American students was attributable to differences in teacher quality (Ferguson, 1991). Researchers in a Tennessee study found that teachers have a cumulative effect on student achievement. After three years of ineffective teachers, students scored at levels that were less than half of those of their peers who had benefited from more effective teachers (Sanders & Rivers, 1996).

Research evidence also indicates that board certified teachers are accomplished classroom practitioners. Results of the first study of the efficacy of national board certified teachers (NBCTs), completed in the year 2000, demonstrated that teachers who achieve board certification outperform their non-board certified peers on numerous dimensions of research-established indicators of teaching expertise, including knowledge of subject matter, ability to adapt instruction to different types of students, and capacity to develop challenging and engaging lessons (Bond, 2000).

Goldhaber and Anthony's (2004) initial large-scale study of board certified teachers used a North Carolina database to assess the relationship between board certification and elementary level student achievement. This study found that board certification successfully identifies more effective teachers; that board certified teachers are more successful in increasing student achievement in mathematics and reading than are their non-board certified colleagues; and that NBCTs are the most successful with low-performing students (Goldhaber & Anthony, 2004).

In addition, other positive research has shown positive impacts of NBCTs on their students' achievement and significant improvement of NBCTs' teaching practice as a result of the Board certification process (Vandervoort, Amrein-Beardsley, & Berliner, 2004; Cavaluzzo, 2004; Lustik & Sykes, 2006). However, the research on NBCTs and student achievement is not unanimously

positive. Mixed or statistically non-significant results were found in at least two studies (Sanders, Ashton, & Wright, 2005). Moreover, even among the those studies showing positive effects of NBCTs on student achievement, the size of the effect is small compared with the magnitude of gap between students in low-performing schools and their more advantaged peers.

The debate over the relative benefits of NBCTs on student achievement is unlikely to be resolved any time soon and this study did not set out to resolve that debate. Instead, the study argues for a need to look more closely at the conditions and circumstances necessary for NBCTs to contribute to the transformation of low-performing schools. Ultimately, this is a policy study designed to explore the complex relationship between teacher quality, school context, and student learning. The study is based on the premise that policy makers need more insights into school improvement than can be gleaned from student achievement studies alone.

As such, this study addressed a series of interrelated research questions, including investigations of the NBPTS founders' theories of change concerning NBCTs and low-performing schools, the representation of NBCTs in low-performing schools, the use of NBCTs in schools, especially low-performing schools, obstacles to the effective use of NBCTs in low-performing schools, and the conditions and circumstances necessary for NBCTs to contribute to the transformation of low-performing schools

Methods

The study employed a multi-method approach. Using multiple methods allowed us to confirm, or refute, hypotheses based on multiple data sources. Data collection activities included interviews with National Board founders, database analysis to determine the distribution of NBCTs across different kinds of schools, a survey of NBCTs, case studies of 16 low-performing schools with concentrations of NBCTs, and multiple focus groups of NBCTs from across three states.

Executive Interviews

Executive interviews were conducted with a number of the founders and key intellectual thinkers who gave birth to the NBPTS. These individuals included Lee Shulman, whose work on pedagogical content knowledge provided much of the intellectual foundation for developing the Board's standards and assessments; James Kelly, founding president of the National Board; former North Carolina Governor James Hunt, who served as the founding chair of the National Board; Barbara Kelly, the first teacher chair of the National Board; and several key early staff people who helped give shape and substance to the idea of a National Board for Professional Teaching Standards.

Executive interviews were conducted in person or by telephone and lasted approximately an hour each. The purpose of these interviews was to help the research team better understand the early thinking about the NBPTS as well as the roles the board's founders believed NBCTs might play in ongoing school improvement efforts. Results of the interviews enabled the research team to place study findings in an historical context and provided a foundation for understanding the generalizability of our own emerging research findings.

Mapping the Distribution of NBCTs

To answer the question about where NBCTs teach, the research team used the National Board's database to examine the assignments of board certified teachers by school type. We limited our analysis to NBCTs currently teaching in schools and to those who had earned board certification between 1998 and 2003. We further limited our review to NBCTs in the six states that have the largest number of board certified teachers—California, Florida, Mississippi, North Carolina, Ohio, and South Carolina. Together these states represent 65% of all NBCTs nationwide (NBCT, 2004b).²

Surveys

To learn more about NBCTs' motivations and their roles and activities in their schools, we conducted a survey of a sample of board certified teachers. The sample of NBCT survey participants was drawn from the six states with the largest number of NBCTs. Table 1 displays the NBCT populations at the time of the survey, as well as how many participants were surveyed, how many responded, the response rate and the range of the weights used in the analyses featured in this paper.

Separate samples were selected in six states. In each state, schools were originally assigned to one of 4 strata—elementary low-performing, elementary non-low performing, secondary low performing, or secondary non-low performing. For the purposes of survey sampling and analysis, 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.³ Within each stratum a random sample of national board certified teachers (NBCTs) was selected, with slightly more NBCTs selected from the three states in which the case study schools were located. Later, it was discovered that the stratification variables could be improved, and all schools in the universe were reclassified. For some of these “improved” strata, an additional random sample of NBCTs was selected.

Starting in March 2003, the survey was administered to a total of 1,136 NBCTs. Three weeks after the survey was mailed, non-response follow-up telephone calls were made to the homes and schools of individuals who had failed to return a completed survey. Ultimately, 75% of the mailed surveys were completed and returned. In all analyses, participants were assigned weights based on their state, school level, and performance classification. Because school performance level was reclassified, the weights vary somewhat by participant; the weight range is displayed in Table 1. Case Studies in Low-performing Schools

To gather specific information about conditions and circumstances that enhance or impede NBCTs' ability to serve as agents of school reform in low-performing schools, a series of case studies was conducted. Case study schools were located in California, North Carolina, and Ohio. We selected these three states because they are among the states with the largest number of NBCTs, represent different policy environments, and have employed varying policy strategies with regard to board certification and board certified teachers.

² The distribution analysis is explained in detail in Humphrey, Koppich, and Hough (2005).

³ The calculation of the performance index used for survey sampling and analysis is detailed in Humphrey, Koppich, and Hough (2005).

Table 1
Survey Population, Respondents, and Weight Ranges, by State

State and Statistic	Elementary Schools		Secondary Schools	
	Low-performing	Others	Low-performing	Others
California				
Population	541	758	343	575
Sampled	57	57	57	57
Responded	29	51	40	47
Response Rate	50.9%	89.5%	70.2%	82.5%
Weight	18.7	8.0–16.3	8.6	12.2–12.5
Florida				
Population	410	1995	266	1571
Sampled	30	30	27	33
Responded	22	27	23	21
Response Rate	73.3%	90.0%	85.2%	63.6%
Weight	18.6	73.9	11.6	15.0–81.1
Mississippi				
Population	69	622	83	649
Sampled	30	31	30	53
Responded	22	22	22	32
Response Rate	73.3%	71.0%	73.3%	60.4%
Weight	3.1	28.3	3.8	7.4–29.1
North Carolina				
Population	500	2231	415	2376
Sampled	60	57	57	93
Responded	51	44	43	63
Response Rate	85.0%	77.2%	75.4%	67.7%
Weight	9.8	50.7	9.1–13.8	26.1–46.4
Ohio				
Population	180	610	164	719
Sampled	57	67	57	63
Responded	42	59	50	47
Response Rate	73.7%	88.1%	87.7%	74.6%
Weight	4.3	4.8–11.3	3.3	2.5–17.2
South Carolina				
Population	238	1241	189	1458
Sampled	32	30	30	41
Responded	27	25	19	26
Response Rate	84.4%	83.3%	63.3%	63.4%
Weight	8.8	49.6	8.3–10.4	21.9–77.4
Total				
Population	1938	7457	1460	7348
Sampled	266	272	258	340
Responded	193	228	197	236
Response Rate	72.6%	83.8%	76.4%	69.4%

For cells where weights can not be detailed in a compact table, we present weight ranges.

Case study schools were selected using the NBPTS database. Determining specific case study sites involved a two-pronged sampling strategy. First, we identified all schools that were in the bottom quartile for two of the three years beginning in 2000–2001 on their state’s school assessment system. Second, we identified the number of NBCTs in each of these schools. We found very few schools with large numbers of NBCTs, but we theorized that a concentration of NBCTs would increase the likelihood of school improvement. As a result, we restricted the sample to those schools with at least 9% of their teachers (or 9% of a single department of a secondary school) in order to give us a large enough pool to select from. We then analyzed available data on each school, sorted the schools by grade levels served, and contacted state and local officials for nominations of schools that they hypothesized showed promise based on the contributions of NBCTs.

Initial site visits were conducted to the schools described above—six schools each in California and North Carolina, and four in Ohio.⁴ The research team analyzed the results of these visits and developed criteria to determine which of the schools to visit in stage two of the fieldwork. This decision was based on the degree to which potential case study schools provided a balance across the three states, were illustrative of one or more of the central themes regarding the impact of NBCTs emerging from the study, and/or showed some evidence of the promise of improvement with NBCTs playing a focal role in the change process. Nine schools—three from each state—were ultimately selected for second round site visits and the development of case studies.

Focus Groups

In conjunction with site visits, focus groups were convened in each of the case study states. California focus groups were held in Los Angeles and San Francisco, North Carolina focus groups in Chapel Hill and Durham, and Ohio focus groups in Cincinnati and Cleveland. Focus groups were composed of board certified teachers from both low-performing and higher-performing schools that were not represented by case study sites. Eight focus groups—three in stage one of the study and five in stage two—were conducted during the course of the research. These sessions were designed to provide a forum in which the research team was able to raise questions about emerging study findings as well as “test” preliminary research conclusions.

Findings

Federal, state, and local policies have, in recent years, encouraged veteran teachers to earn National Board certification. Implicit in these policies is a strategy of improving student achievement by elevating the teaching profession and by encouraging accomplished teachers to work in the schools that need them most. This strategy is largely consistent with the goals of the founders of the National Board, although the founders were well aware of the challenges associated with the strategy. We begin with a review of the origins of the National Board for Professional Teaching Standards and the founders’ goals and objectives.

⁴ The research team originally planned to visit six schools in Ohio, but due to a low concentration of NBCTs in Ohio urban schools (the population from which we were sampling), only four schools were available for the study.

The Genesis of the National Board

In 1986 the Carnegie Forum on Education and Economy released *A Nation Prepared: Teachers for the 21st Century*. The Carnegie report focused attention on the need to improve the quality of teaching in order to improve student learning (Consortium for Policy Research in Education, 1989). Well-qualified teachers, asserted the report, were key to lifting still-sagging student achievement. But the conditions under which teachers worked, according to the report, were not conducive to creating the environment that would enable them to meet the demands of a soon-to-be-21st century education system. The Carnegie recommendations centered on building a profession of teaching.

Teaching had always been an occupation or a semiprofession. The hallmarks of a profession—a codified, specialized knowledge base that frames the work and the assumption by the profession’s members of collective responsibility for enforcement of accepted standards and norms of behavior (Schlechy, 1985; Sykes, 1998)—were generally absent from teaching. The knowledge effective teachers need to be successful was not codified, and teaching operated as an individual, often isolating, activity. Moreover, teachers’ work was not bounded by a consensual set of professional standards or norms. In addition, teaching had long been recognized as an unstaged or careerless occupation (Lortie, 1975; Sykes, 1983). It was not unusual to find a teacher performing the same tasks on the last day of the 20th year on the job as on the first day of the first year. And in what had become a well-known truism about teaching, an individual had to move out to move up. In other words, the route to professional advancement was found in moving out of teaching altogether and into administration.

Numerous studies of the teaching culture and efforts to establish teacher career ladders point to the dilemmas inherent in each. Studies of the culture of teaching consistently reveal norms and behaviors of individualism and egalitarianism that stymie the development of collaborative professional relationships (Hargreaves, 2003, 2005, 2006). Likewise, efforts to establish and sustain teacher career ladders that would provide financial incentives for teachers to take on added responsibilities and assume new roles have foundered on the teaching culture’s embrace of teacher equality (Malen & Hart, 1987; Brandt, 1990; Firestone & Pinnell, 1993; Conley & Odden, 1995).

The Carnegie report aimed to change much about the teaching career. As the report noted, “An essential ingredient of successful education reform is creating a profession equal to the task, a profession of well-educated teachers prepared to assume new powers and responsibilities to redesign schools for the future” (Carnegie Task Force, 1986). *A Nation Prepared* offered a new framework for teaching, a kind of professional quid pro quo. Teachers would have higher pay, more professional autonomy, and expanded career opportunities that would encourage capable people to enter and remain in teaching. In exchange, teachers would agree to higher standards for themselves and greater accountability for student performance. To build and sustain such a profession, the report, in clear and decisive language, called for restructuring schools to provide a professional environment for teaching, “freeing [teachers] to decide how best to meet state and local goals while holding them accountable for student progress” and developing a National Board for Professional Teaching Standards “to establish high standards for what teachers should know and be able to do and to certify teachers who meet that standard” (Carnegie Task Force, 1986).

The View from the Founders

How did the founders see the purposes and potential of the National Board for Professional Teaching Standards? Where did they place the NBPTS—or what would develop as the NBPTS—in the constellation of teaching and school reform strategies?

Much of the foundational research that gave rise to NBPTS was conducted by Lee Shulman, currently President of the Carnegie Foundation for the Advancement of Teaching. Shulman is in many ways the intellectual godfather of NBPTS. His conception of pedagogical content knowledge, or subject-matter teaching expertise (Shulman, 1986), provided the basis for much of the development of the standards and assessments. Shulman viewed the board from an individualistic rather than an organizational perspective. He saw the principal purpose as “making excellent teaching more salient and visible,” as a way of “identify[ing] real excellence in teaching.” At the time of the development of the NBPTS, Shulman says, he did not make the connection between national board certification and the larger goals of school reform. If board certification was to be part of some larger school reform calculus, he notes, the developers of NBPTS would have needed to rely on a different theory of action, one in which schools explicitly committed to expanded roles for NBPTS. Such a bargain was not an overt component of board development (L. Shulman, interview, February 5, 2004).

Gary Sykes, currently professor of education at Michigan State University, worked closely with Lee Shulman on the research that led to the creation of board. Sykes saw the purpose of the board fundamentally in occupational terms. He believed NBPTS would further the teacher professionalization agenda articulated by the Carnegie report, ultimately improving teaching both by reshaping teacher professional development (making it more rigorous and subject-matter based) and by offering the possibility of status differentiation within teaching that would “change the [unstaged] ethos” of the occupation. Before the NBPTS, Sykes reminds us, there were no standards of good teaching, at least none that were widely accepted among teachers. This lack of standards “held back teaching as a profession.” A professional consensus about what constitutes good teaching, even if the knowledge base was still in its developmental stage, would serve to “move and organize the field in ways that hadn’t previously occurred” (G. Sykes, interview, January 21, 2004).

James Kelly, founding president of the board, made the explicit connection between improved teacher quality and increased student achievement. He believed early on, he says, that NBPTS could improve teaching as a whole, primarily by “giving teachers a common language” and “straightening out the intellectual content of what good teaching is” (J. Kelly, interview, January 20, 2004). Enhanced teacher quality, he believed, would lead to improved student achievement. Kelly, too, then viewed NBPTS from an occupational perspective. He saw the board as a vehicle to change the ethos of teaching. A primary goal, says Kelly, was “creat[ing] a culture... in which teachers would communicate about practice and work collectively and collaboratively.” He believed board certified teachers would be offered “enhanced professional roles” that would enable them to use their expertise while remaining in the classroom. Kelly acknowledges that the founders were not explicit about what these roles might be, preferring for them to develop naturally as states and districts saw the opportunities (J. Kelly, interview, January 20, 2004).

Like James Kelly, James Hunt, former governor of North Carolina and the founding chair of the board, saw the purpose as “improv[ing] student learning, but to do so [we] first [had to] make sure that teachers [met] high and rigorous standards in both their knowledge of subjects and ability to teach it effectively. We [the founders] realized that we did not have a true teaching profession in the United States and we believed the National Board could get us there” (J. Hunt, interview, January 15, 2004). Finally, David Mandel, associate director of the Carnegie Task Force on

Education and the Economy and an early vice-president, also saw the board as a way to alter the shape of the career and make teaching a more attractive profession. As a result of NBPTS's efforts, he believed, "Teachers would no longer practice as individual entrepreneurs" (D. Mandel, interview, January 28, 2004).

Development of the board was designed to codify a shared knowledge base for teaching, to publicly recognize, in what has become, in the now-familiar vernacular of NBPTS, what accomplished teachers should know and be able to do. The aim was to acknowledge the inherent complexity of teaching; provide teachers with some measure of control over their profession (teachers would shape the standards on which effective practice would be judged); enhance teachers' professional opportunities while allowing them to remain in the classroom; and restore public confidence in teachers and teaching by making visible the knowledge and skills required of effective practitioners. Early strategists and implementers saw the board as having specific, albeit somewhat limited, purposes. Targeted specifically to increasing teacher professionalization, the founders believed the board would contribute significantly to improving the quality of teaching, and enhancing the status—and the attractiveness—of teaching as a career. The board was designed not as a stand-alone education improvement strategy, but as one component of the ongoing, seemingly limitless "steady work" (Elmore & McLaughlin, 1988) of education reform.

Once the National Board began certifying teachers in large numbers, an important question was: Where do NBCTs teach? Next we examine the distribution of NBCTs and the efforts to ensure an equitable distribution.

Distributing the Wealth⁵

It is a well-documented education dilemma that high-caliber experienced teachers often are in short supply in low-performing schools. As *Education Week* reported in *Quality Counts 2003*, "For states to end the 'achievement gap' between minority and nonminority 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" (*Education Week*, 2003). As research has shown, the chasm between well-qualified and less-qualified teachers in high-poverty (and typically low-performing) schools and low-poverty (and typically higher-performing) schools can be vast. Figure 1 displays the statistics for teachers in grades 7 to 12 who hold neither a major or minor in the subjects they are teaching.

As can be seen from Figure 1, teachers in high-poverty (low-performing) schools are far more likely to lack a major or minor in the subjects they are teaching than are teachers in low-poverty (higher-performing) schools. The relative lack of high caliber teachers in low-performing schools results from a confluence of factors. These include substandard working conditions, a paucity of incentives (including financial incentives) for high-quality teachers to choose difficult teaching environments, longstanding policies and practices related to teacher transfer and assignment, and the culture of teaching itself that awards greater professional standing to teachers in higher- rather than lower-performing schools.

⁵ For a more complete treatment of this issue, see Humphrey, Koppich, and Hough (2005).

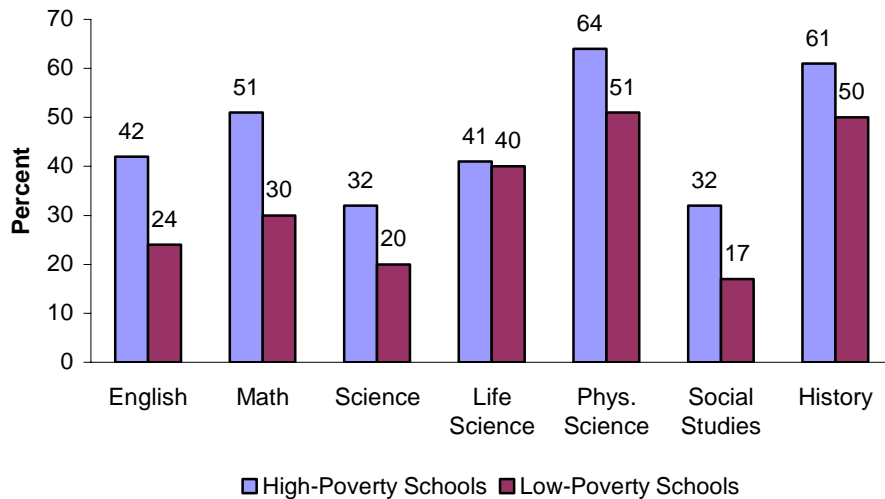


Figure 1. Teachers in grades 7–12 who lack a major or minor in the subjects they are teaching
Source: Ingersoll, 2003.

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% 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).

The founders of the National Board for Professional Teaching Standards anticipated that the advent of board certification was likely to exacerbate this already pressing problem. But they were confident that states and districts would enact policies to mitigate it. As Lee Shulman pointed out, “The National Board did not create the maldistribution of well-qualified teachers. It [simply] acted like a stain on a slide, making existing structures [and inequities] more visible” (L. Shulman, interview, February 5, 2004). Shulman thought “a rising tide would lift all boats.” In other words, when confronted with the skewed distribution of highly qualified teachers that board certification was likely to exacerbate, states and districts would take affirmative action to rectify the situation (L. Shulman, interview).

David Mandel echoed the same sentiment in somewhat less prosaic words: “[We knew] the National Board would reveal more starkly the mess [in terms of teacher distribution] that already existed” (D. Mandel, interview, January 28, 2004). He and Gary Sykes agreed states and districts would need to act to assure an equitable distribution of board certified teachers and believed they would do so (G. Sykes & D. Mandel, interviews, 2004).

James Kelly, the board’s founding president, knew there would be a “need to induce [board certified] teachers to go to difficult schools.” He was convinced this would take money, in the form of financial incentives, for which states and districts would assume responsibility (J. Kelly, interview, January 20, 2004). James Hunt, the former North Carolina governor, saw it primarily as a district responsibility to assure that low-performing schools had their share of NBCTs. As he said, “It is the school district’s job to place teachers where they are needed most” (J. Hunt, interview, January 15, 2004).

How, then, has the emergence of national board certification shaped the distribution of highly accomplished teachers? Are board certified teachers equitably dispersed among different types

of schools and different student populations? Have states and districts developed policies and incentives to lure board certified teachers to challenging schools?

Where Do NBCTs Teach?

Our research reveals that NBCTs are much more likely to be found in higher-performing than in lower-performing, schools. Moreover, states and districts have done little to develop policies and incentives to encourage NBCTs to choose challenging schools.

Of the more than 40,000 NBCTs who have earned certification since the first certificate was awarded in 1993, nearly two-thirds (65%) are found in six states—California, Florida, Mississippi, North Carolina, Ohio, and South Carolina. NBCTs in these six states thus provide a reasonable proxy for the nationwide distribution of board certified teachers.⁶ Of the 18,806 NBCTs in the six states who earned certification between 1998 and 2003, just 12% of them (2,297 teachers) teach in schools at which at least 75% of the students are eligible for free and reduced-price lunch. Only 16% of NBCTs in these six states (or 3,076) teach in schools serving at least 75% minority students. And a bare 19% of NBCTs in these states (or 3,521) work in low-performing schools.⁷

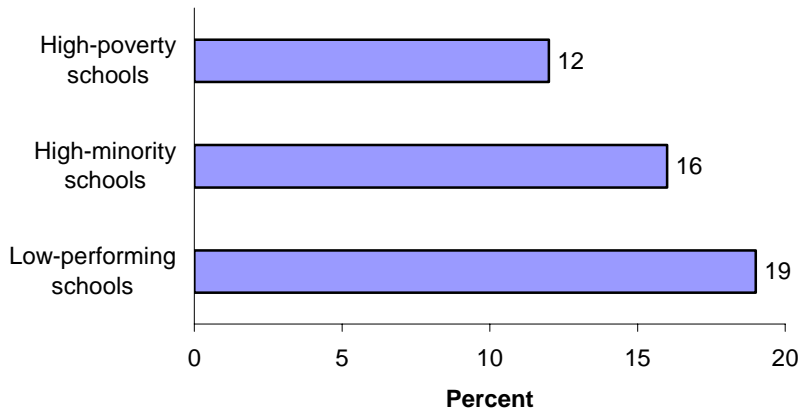


Figure 2. Percentage of NBCTs and all teachers teaching in high-minority, high-poverty, and low-performing schools. Sources: CDE (2004), FDOE (2004), MDE (2004), NBPTS (2004), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); project analysis.

Figure 3 compares the percentages of NBCTs in low-performing schools in the six focus states. As can be seen, NBCTs are underrepresented in high-need schools in five of these six states. The exception is California, where the distribution is more equitable.

⁶ The distribution analysis in this paper was completed in 2004 and includes NBCTs certified between 1998 and 2003. Prior to 1998, exploratory analysis showed that teacher data were frequently outdated.

⁷ For purposes of this study, low-performing schools are defined as those with state test scores in the bottom three deciles for two of the three years beginning in the 2000–01 school year. We acknowledge that this definition does not allow for comparisons between schools in different states as state assessment systems differ. However, the bottom 30% of schools in a state is a reasonable proxy for low performance.

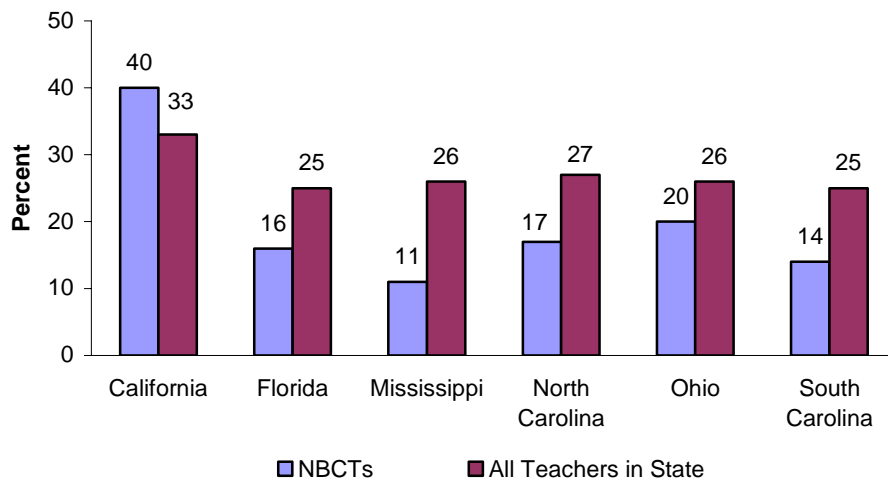


Figure 3. Percentage of NBCTs and All Teachers Teaching in Low-Performing Schools. Sources: CDE (2004), FDOE (2004), MDE (2004), NBPTS (2004), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); Project analysis.

What causes California to be different from the five other states? Data reveal that the difference is Los Angeles. As Figure 4 shows, Los Angeles has a significantly higher percentage of NBCTs in low-performing schools than any of our six comparison states.⁸

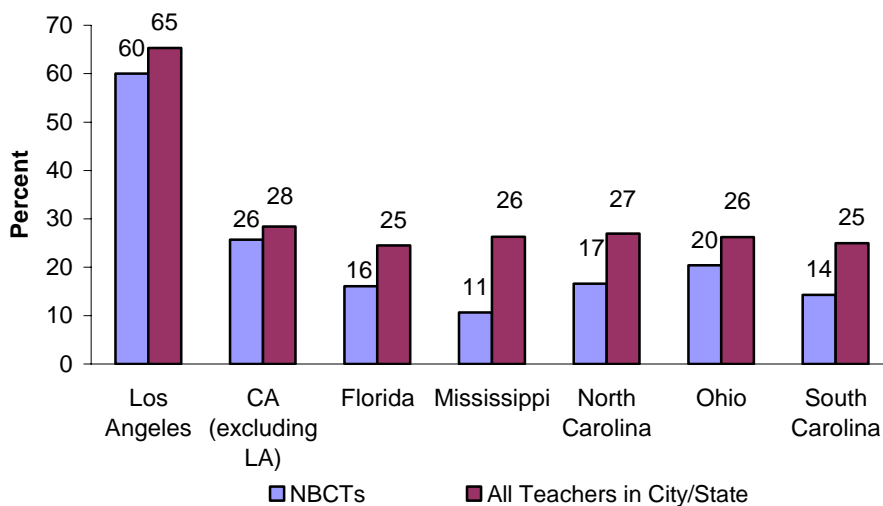


Figure 4. Percent of NBCTs in low-performing schools in Los Angeles and six states. Sources: CDE (2004), FDOE (2004), MDE (2004), NBPTS (2004), NCES (2004), NCDPI (2004), ODE (2004), SCDE (2004); Project analysis.

⁸ It should be pointed out that Los Angeles has a higher proportion of low-performing schools than do the six states. Using the project definition of low-performing school, nearly half of Los Angeles' schools (48%) fall into the low-performing category. By contrast, 22.9% of schools in California excluding Los Angeles, 23.4% of schools in Florida, 25.2% of schools in Mississippi, 27.4% of North Carolina schools, 23.5% of Ohio schools, and 26.1% of South Carolina schools are low-performing.

Just above 40% of NBCTs in California (909 NBCTs out of a total of 2,261) teach in the Los Angeles Unified School District. As can be seen from Figure 5, large numbers of these board certified teachers teach in schools with high concentrations of poor, minority, and low-performing students.

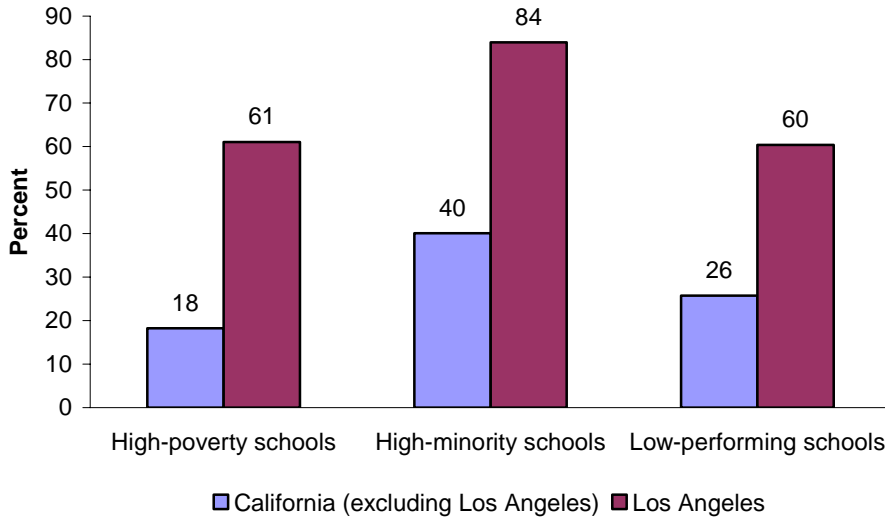


Figure 5. Number of NBCTs in various types of schools in California and Los Angeles. Sources: CDE (2004), NBPTS (2004), NCES (2004); Project analysis.

As Figure 5 also shows, when Los Angeles is compared to California without Los Angeles, Los Angeles outdistances the rest of the state in terms of numbers of NBCTs in challenging schools. What accounts for the difference in Los Angeles? The answer seems to lie in the support programs and financial incentives available to Los Angeles teachers who are interested pursuing board certification.

LAUSD teachers who want to become board certified have two major support programs available to them. One is run jointly by the United Teachers of Los Angeles (UTLA), the local teachers’ union, and the Los Angeles Unified School District. The other operates under the auspices of the University of California at Los Angeles. Both programs make an effort to recruit teachers who are already teaching in low-performing schools and want to remain there as NBCTs.

As Figure 6 shows, these programs 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. API stands for Academic Performance Index, a California State Department of Education calculation based largely on student performance on achievement tests. Thus, the net effect of the Los Angeles support programs is to increase the capacity of teachers in low-performing schools to earn board certification. This targeted effort boosts the number of NBCTs teaching in challenging Los Angeles schools.

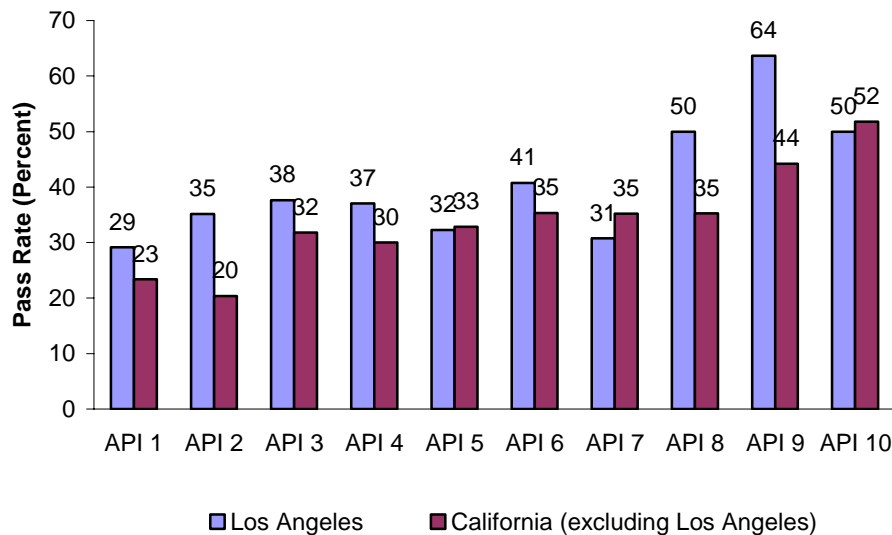


Figure 6. Pass rates in Los Angeles and the rest of California. Sources: CDE (2004), FDOE (2004), NBPTS (2003), NCES (2004); Project analysis.

Does Money Matter?

What about the impact of state and local fiscal incentives targeted to NBCTs? Does this strategy—offering added compensation to those who become board certified—have an effect on the distribution of NBCTs?

Financial incentives, though important to NBCTs (79% of survey respondents said “potential for increased financial compensation” contributed significantly to their decision to pursue board certification), do not appear significantly to impact NBCTs’ choice of schools. More than 88% of NBCT survey respondents are currently teaching in the schools in which they earned board certification. The reason fiscal incentives seem to have little effect on the distribution of NBCTs may be found in the nature of the incentives available. More than 30 states and dozens of schools districts offer financial incentives for teachers to pursue board certification, as well as additional compensation for those who earn it. However, few of these incentives are tied to teachers who teach in, or agree to move to, low-performing schools. The major exception is California.

In 1998, California enacted a policy to pay any teacher who earned board certification a one-time \$10,000 bonus. Two years later, in July 2000, the state adopted a policy that awarded board certified teachers who teach in low-performing schools (defined as those below the 50th percentile on the state’s Academic Performance Index) a bonus of \$20,000 over a period of four years.⁹ This program represented a deliberate policy strategy to encourage the redistribution of accomplished teachers. In addition, all LAUSD teachers who earn national board certification are eligible for up to a 15% salary increase. Available state specific data do not allow a detailed analysis of whether these incentives have resulted in substantial movement of accomplished teachers. Anecdotal evidence, however, suggests that California’s targeted incentive for NBCTs who teach in low-performing schools may not be targeted enough to persuade many of these teachers to relocate to the neediest schools.

⁹ The state has since ended the \$10,000 bonus but retained the \$20,000 bonus.

Under California's generous definition of a low-performing school, more than 70% of teachers in Los Angeles, for example, became eligible for the state bonus without changing schools. A similar pattern likely was evident in other urban districts in the state. Thus, the impact of this well-intentioned policy, meant to encourage accomplished teachers to choose more challenging teaching environments, was blunted by its own provisions. Moreover, if NBCTs from our case study schools are any indication, money alone—even a 20% salary jump—is not adequate to persuade NBCTs to seek out more challenging schools. As explained in the next section of this paper, a strong and supportive principal, collegial relationships, and the availability of adequate resources are critical assignment conditions that must be in place if NBCTs are to consider transferring to low-performing schools.

What do the data about NBCTs and low-performing schools, then, reveal? First, NBCTs are not equitably distributed across schools that serve different populations of students. In the six states with the largest number 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. Moreover, few incentives are tied to encouraging board certified teachers to choose low-performing schools. The significant exception to this pattern is Los Angeles. In this district, providing targeted support for National Board candidates already working in low-performing schools has a salutary effect on both the number and distribution of NBCTs.

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 maldistribution of resources among different types of schools. As policymakers craft policies designed to reward teachers who earn board certification, they must be mindful not to design policies that make the distribution of resources, including human resources, even more inequitable. Regardless of where NBCTs teach, we were also interested in how they are utilized by their schools and districts. Our assumption was that NBCTs possess skills and knowledge that are of value beyond the confines of their own classrooms. In the next section, we report on the utilization of NBCTs by schools and districts.

Paving the Way for NBCTs to Make a Difference—Enablers and Barriers

What is known about how the knowledge and skills of NBCTs are used? What kinds of roles and responsibilities do they assume? Under what conditions are they able to have an impact beyond their own classrooms? What are the barriers that impede NBCTs' opportunities to serve as change agents?

An examination of the reasons NBCTs offer for seeking board certification is instructive in considering the ways in which NBCTs view their roles, responsibilities, and opportunities. NBCT survey respondents give improving student learning (95%), potential for increased financial compensation (90%), and "increased credibility of my teaching" (88%) as the top reasons for pursuing board certification. These reasons might be categorized as individually and personally affirming. They are a means by which NBCTs reinforce their own sense of professional efficacy. Considerably lower on the list of reasons NBCTs offer for seeking board certification are "the possibility of career advancement while remaining a teacher" (45%) and "the opportunity to influence changes at my school" (44%). For NBCTs, then, earning board certification is not necessarily seen as a step on the road to professional advancement.

Interviews and focus groups corroborate that, for many board certified teachers, earning board certification is a personal and individual achievement. NBCTs undertook the process because they wanted to prove to themselves that they are accomplished practitioners. Many of them were

clear that they did not link board certification to larger or more expansive professional objectives (with the exception of earning more money).¹⁰

Having said this, it is important to note that NBCTs in our case study schools and focus groups, as well as NBCT survey respondents, were often actively involved in improving their schools. This inclination to assume various kinds of professional responsibility preceded earning board certification. Nearly three-quarters of NBCTs (74%) say prior to becoming board certified, they were involved in developing and/or selecting curriculum materials. Of survey respondents, 71% served as team leaders for their grades, subjects, or departments. More than two-thirds were involved in mentoring other teachers and serving on school or district committees (68% and 66%, respectively). And better than 59% of all NBCTs participated in providing professional development prior to becoming board certified.

We heard often from principals and colleagues that the NBCTs were their schools' "natural leaders." Yet despite NBCTs' potential as teacher leaders, their opportunities to operate in this arena often are substantially dampened by two prevailing conditions: the reluctance of principals to expand NBCTs' professional horizons and NBCTs' and their colleagues' steadfast adherence to a culture of teacher egalitarianism.

The Principal

In the absence of a supportive and knowledgeable principal, NBCTs find themselves in teaching situations in which their skills are, at best, underutilized. While nearly two-thirds of NBCTs (60%) say their principals view board certification "very favorably," nearly half (49%) say, "My administration is not supportive of roles outside the classroom [in which NBCTs might be interested]." In part, this lack of administrative support is related to principals' general unfamiliarity with the National Board. In interviews at case study schools, it was apparent that, while principals may have heard of the National Board, they often are unaware of the dimensions of board certification—what it takes to earn it and what earning it signifies. Even those principals who have some knowledge of the National Board often expressed some skepticism about the import or impact of the process. Sometimes principal's skepticism stems from a simple lack of understanding about the National Board itself. Sometimes it is the result of a negative experience, such as principals who told us of teachers they know whom they would not consider accomplished teachers, but who nevertheless earned board certification.

Even principals who are knowledgeable about and supportive of the National Board seem unable to make effective use of NBCTs' expertise. They simply do not know how to strategically take advantage of NBCTs' knowledge and skills to further school improvement. Some principals are reluctant to include NBCTs as part of the school's decisionmaking loop out of concern that doing so will reduce their own power and authority. Still others told researchers that they believe that acknowledging NBCTs harms the cohesion of the professional community they are trying to sustain at their schools. The result in these schools can be an unwritten code of silence in which teachers who earn board certification are neither publicly acknowledged nor professionally recognized.

Interestingly, there seems to be something of a disconnect between NBCTs' appraisal of their principals' leadership skills and their assessment of principals' efforts to incorporate NBCTs into their schools' school improvement plans. board certified Teachers agree or strongly agree that the principal "has confidence in the expertise of teachers (87%); "works to create a sense of community at my school" (77%); "supports and encourages teachers to take risks" (71%); and, "is

¹⁰ Just 15% of NBCTs say they pursued Board Certification because they want to become administrators.

strongly committed to shared decisionmaking” (66%). However, just above a third of NBCTs (38%) report that their principal “uses NBCTs as a resource for school improvement.” More than half (58%) say, “My administration does not make an effort to include NBCTs in roles beyond the classroom.”

Whatever the reason—lack of knowledge and understanding about the National Board, skepticism about the value of board certification, a comfort level with traditional power relationships—NBCTs report (by more than 90%) that they are no more influential than other teachers on matters such as selecting curriculum and materials, determining the content of professional development programs, teacher hiring or evaluation, deciding how the school budget will be spent, or determining the focus of school reform efforts.

NBCTs and Their Colleagues

More surprising perhaps than principals’ reticence to include NBCTs in school improvement efforts is the attitude of NBCTs themselves and their non-NBCT colleagues toward nontraditional teaching roles. If nothing else, the mindset of teachers evident in this research illustrates that the culture of individualism and egalitarianism remains alive and well in the profession. While 41% of NBCTs say their colleagues view board certification “very favorably,” nevertheless many NBCTs report experiencing less-than-welcoming relationships with their fellow teachers. NBCTs say that they are often given the cold shoulder by non-NBCTs who assume board certified teachers will put on professional airs or seek a status “bump” they view as unwarranted or inappropriate in the ranks of teachers. As one NBCT told researchers, “I’m asked what I’d want to do that [board certification] for. [It’s] only for teachers who want to be better than everyone else.” Non-NBCTs sometimes described their NBCT colleagues as “wannabes,” interested primarily in self-aggrandizement.

It is still the case in teaching that those who step outside expected roles and responsibilities can expect some form of colleague rebuke. More than half of all NBCTs (53%) report that, “Teachers who are involved in innovation form a distinct and separate group in my school.” Nearly half (43%) say that, “My school culture is not welcoming of teachers stepping into leadership positions.” Thus, NBCTs go to considerable lengths to downplay any distinction between themselves and their non-NBCT colleagues. They are nearly uniformly wary of publicly asserting that board certification affords them—or should—differential professional status. The comment of one NBCT was echoed by many others: “There are a lot of [non-NBCTs] who have the same abilities. I’m not sure NBCTs are better than others.”

In one case study school, where a new principal was eager to involve NBCTs in a host of school improvement activities, the NBCTs themselves steered clear of such involvement and said it was because of colleagues’ history of negative attitudes toward NBCTs. When the principal attempted to ease the NBCTs into some school leadership responsibility by having them provide the school-based professional development, the NBCTs refused. They said they might consider being professional development providers at another school, but not at their own where they had to work with their colleagues everyday.

NBCTs’ reluctance to stray much beyond the confines of what is traditionally considered “teacher work” seems to be inextricably bound in the still pervasive and persistent culture of teacher egalitarianism, the firmly held belief that, “A teacher is a teacher is a teacher.” The advent of the National Board for Professional Teaching Standards has done little to quell this professional sensibility. As one focus group member told us, “Nothing about the process [of becoming board certified] trains you to be a change agent. If you don’t have it intrinsically, it’s really hard to stand up

to negative colleagues. It's a lot easier to go into your own [class]room, close the door, and just do your job well."

One district in which we found an altogether different experience for board certified teachers was Cincinnati. In Cincinnati, the creation of the lead teacher position has opened up a wealth of roles and opportunities for NBCTs.

When *A Nation Prepared* was first released, the Cincinnati Public Schools and the Cincinnati Federation of Teachers used the report as roadmap for professionalizing teaching. They began in 1988 (prior to the launch of the National Board) to develop a teacher career ladder, including the position of "lead teacher." The goal of Cincinnati's effort was to embed professional leadership roles for teachers that would not require them to become administrators.

Cincinnati designated a number of school-based and district-based roles for lead teachers, including department head, team leader, curriculum specialist, staff development specialist, and peer evaluator. Lead teachers also served as members of joint district-union committees tasked with making significant decisions about instruction and resource allocation, and on intervention teams for low-performing schools. Some of these positions required teachers to leave classroom for period of time (typically three years); others did not.

Initially, the district and union designed their own assessment procedures for those interested in becoming lead teachers. When board certification became a reality, earning it became an alternative route to earning Cincinnati's lead teacher credential. Being board certified is not a requirement for becoming a lead teacher, but having it gives an applicant an advantage.

Figure 7. The Cincinnati Experience—Changing the Dynamics.

NBCTs and Low-Performing Schools

What we have learned from this research so far is that board certified teachers are not often found in low-performing schools and that, in the schools in which they are found, they often cannot or do not assume responsibilities in the service of school improvement. But we were still interested in understanding what it would take for NBCTs to choose the most challenging teaching assignments. Is there a set of circumstances and conditions that would make it more likely that highly accomplished teachers would select challenging schools and undertake the kinds of roles that might make a demonstrable difference in these schools? The answer to this question is "yes."

NBCTs were frank about the conditions that must be in place for them willingly to choose to teach in low-performing schools and the conditions that would make it possible for them to work to turn these schools around. In choosing a low-performing school, NBCTs say they want acknowledgment in the form of some sort of premium pay. They want their work to be recognized with dollars. But money alone clearly is not adequate. Only 4% of NBCT survey respondents say financial incentives have caused them to consider a move to a low-performing school.¹¹

In addition to some form of additional compensation, more than 90% of NBCT survey respondents said that for them to consider a transfer to a challenging school, one in the "bottom quarter of performance in your state," that school must have an excellent principal, collaborative colleagues, and the availability of adequate instructional resources. In interviews and focus groups, NBCTs relate stories of low-performing schools they might have considered but for their concern

¹¹ The data do not allow us to determine if the problem is an insufficient number of targeted incentives, or that NBCTs are not convinced dollar amounts are high enough.

that the lack of adequate resources would hamper their ability to provide students with an adequate instructional program.

NBCTs report that these conditions are interlocking. Having one or two in place is not an adequate inducement for NBCTs to choose low-performing schools. And NBCT focus group participants added another interesting condition: they want to be able to move to difficult teaching environments with a group of like-minded colleagues with whom they have previously worked. “Don’t make us transfer in one at a time,” they told us. “Let us go in teams or cohorts.”

A “Rare Bird” among Low-Performing Schools: The Case of Adam Elementary School

This study’s charge has been to identify the conditions and circumstances in which NBCTs can improve low-performing schools. To make this determination, we conducted case studies of 16 schools. Our hypothesis was that an isolated NBCT would be unlikely to be effective; it would take a concentration of NBCTs in a school to truly transform that school. Based on this hypothesis, we searched the country for schools with high concentrations of NBCTs (9% to more than 30%) and made multiple sites visits to schools in North Carolina, California, and Ohio.

In the case study schools with high concentrations of NBCTs we found more barriers to school improvement than opportunities and few success stories. For example, in 8 of the 16 schools, principals either were unaware of the National Board for Professional Teaching Standards or expressed outright skepticism that NBCTs did or should have any special authority or skills. In two of the schools, NBCTs were isolated—in one secondary school in a single department and in one elementary school in the classes for the gifted. Thus, they were afforded little or no opportunity to influence school-wide performance matters. In half of the case study schools, NBCTs themselves said that their colleagues were disdainful of the NBCTs’ assuming even modest leadership roles, such as leading school-based professional development, so that even where the principal was eager for NBCTs to take on new roles, colleagues’ resistance kept the NBCTs from doing so. And in all of the case study schools (with the exception of Cincinnati which has the Lead Teacher program, previously described), we found that taking on roles beyond classroom teaching was attributed (by principals, NBCTs, and non-NBCTs alike) to these teachers’ “natural leadership” inclinations, not to their having earned national board certification.

In addition, local circumstances such as budget cuts and teacher lay-offs undermined even the most concerted efforts to improve the school. Thus, despite the presence of multiple NBCTs, nearly all of our case study schools were struggling with the familiar litany of barriers to improvement. However, there was one school that stood out as an exception. Adam Elementary School is a rare bird among low-performing schools. Although atypical among the schools we studied, the case study of Adam is instructive for understanding the role that both NBCTs and the national board certification process can play in improving schools.

The Rare Bird

Adam Elementary School Elementary is a rural North Carolina school serving 560 children in grades 3 to 5. At the time of this study, more than 60% of Adam’s students were enrolled in a free or reduced lunch program. Adam was also racially mixed with roughly equal numbers of African-American and white students. In the 1999 school year, Adam struggled to have just over half of its students perform at grade level. By the time we first visited the school during the 2003 school year, 85% of students were meeting grade-level standards and the school was recognized as a North

Carolina School of Distinction, a label accorded schools that meet individualized benchmarks for “expected growth” with 80 to 89% of students. (See Table 2.) In addition, the school had met 20 out of 21 of its No Child Left Behind Adequate Yearly Progress (AYP) targets. Despite the considerable progress made in raising student achievement, the principal and teachers were still working to raise the performance of African-American males. During the 2004–05 school year, the school met all of its AYP targets. However, the school also did not meet its growth expectations and lost its “School of Distinction” status. Despite that setback, Adam Elementary School has made dramatic gains over the past six years.

Table 2.

North Carolina State Testing Results for Adam Elementary School

School Year	Percent at or above	
	Grade Level	Rating
2004–05	84	No Recognition
2003–04	85	School of Distinction
2002–03	81	School of Distinction
2001–02	73	No Recognition
2000–01	62	No Recognition
1999–2000	56	Expected Growth

Adam Elementary’s School journey from low-performing to high-performing school began with new district leadership and a superintendent who built in mechanisms to support teachers in the district to earn national board certification. Importantly, Adam hired a new principal who was a veteran teacher from the school and an NBCT. The new principal hired a new assistant principal who was also an NBCT and encouraged Adam’s teachers to pursue board certification. At the time of this study, 13 of Adam’s 25 teachers were NBCTs and four others were in the process of seeking certification.

At least as important as the large numbers of NBCTs (including the administrators) at Adam, is what the state and district, school administrators, NBCTs, and other teachers at Adam did to turn the school around. Next, we turn to a description of these actions beginning with the state and district.

State and District Policy

It is not an accident that North Carolina has the largest number of NBCTs of any state. Under the leadership of Governor James Hunt, the state created a climate of support for national board certification. As the founding chair of the board, Governor Hunt invested state funds to create financial incentives and preparation programs for aspiring NBCTs. More importantly, the Governor helped to create popular support for advancing the profession through the certification process. Currently 9,817 or almost 11% of North Carolina teachers hold board certification.

Within this context, the school district actively promoted national board certification as central to its professional development and school improvement strategy. The district superintendent was a particularly strong supporter of board certification and had garnered the support of the local business community. The Chamber of Commerce publicized the large numbers of NBCTs as a selling point to businesses considering moving to the area. The district encouraged teachers to pursue national board certification through three pre-candidacy meetings each year for interested teachers. For candidates, the district sponsored monthly meetings, held weekly support

sessions in the spring, and offered a 3-day weekend retreat at a local hotel. In addition, the district held a recognition dinner for all candidates. For successful candidates, the district made it clear that they had a responsibility to contribute to the professional community as leaders of the district and school.

Principal Leadership

Within the context of supportive state and district policies, Adam had the further advantage of having a principal and an assistant principal who had both completed national board certification. Having completed the certification process, they understood the concepts, language, and process of becoming an NBCT. The principal was an especially strong advocate of national board certification, having helped establish the district's candidate support program.

The principal and the assistant principal encouraged all non-NBCT teachers at the school to see themselves on a path to national board certification. In order to avoid the professional jealousy apparent in some schools, the principal was careful to recognize the contributions of both NBCTs and those not yet certified. All teachers were expected to be active members in a community of learners. The principal viewed NBCTs as strong leaders with expertise, but emphasized the importance of collegiality and the expectation that all teachers needed to play leadership roles in some way.

Most importantly, the principal used National Board standards and processes as the core of the school improvement strategy. For example, the principal embedded National Board standards into teacher evaluations, and used reflective writing as a way to encourage teachers to improve their practice. The principal also organized the school schedule to allow for more than 5 hours a week of common planning time for teachers. In addition, the principal encouraged teachers to use data for decisionmaking and to make their teaching more public through videotaping and observations by colleagues. All evidence suggested that with the principal's leadership, the school had become a place where both children and adults were busy learning and honing their skills.

NBCTs and School Culture

At Adam Elementary School, decisionmaking was organized around various committees and teams. Learning teams began as a district initiative that was modified and expanded at Adam. By the 2003–04 school year, all Adam's teachers participated in learning teams that met weekly for one hour, and focused on improving the school's literacy instruction.

The principal pointed to these learning teams as “the biggest catalyst for change” in the school. According to the principal, they provided the structure and focus for teachers to learn from each other. While NBCTs led many of the committees and learning teams, administrators emphasized that accomplished teachers who “had not made that choice” also filled formal leadership roles. Regardless of who led the learning teams, the activities were consistent with kinds of reflection and problem solving that are part of national board certification. As one teacher told us, “I think that the whole school...they're hearing more NBPTS language. Even if they're not certified, not even going through the process. They're still hearing the language, they're hearing (about) ‘impact on student learning,’ because we say it (and) because we know it.”

Another teacher reported that the learning teams contribute directly to the number of NBCTs in the school, “And see, that's our *nondirect* support. We're supporting candidates in the next two years that we don't even know about yet, because we're already speaking the language.”

During our observations of learning team meetings, we were impressed with the focus on teaching and learning. Typical of these meetings was one with a group of seven experienced teachers (four NBCTs) and one very inexperienced teacher discussing what they saw in a videotape of strategies for teaching a vocabulary lesson. Much as they had to do in developing their own National Board portfolios, the NBCTs led a frank discussion about what was good and not so good in the videotape. The beginning teacher, new to her position and the school, asked her colleagues how much she was expected to follow the basal reading series with her class. NBCT teammates probed her for her preferences in instructional materials and validated her own (limited) experience that real literature was preferable to basal excerpts for teaching specific skills and fluency. They offered to share book lists matched to skills to be taught. One NBCT described how she sometimes brings in the entire book from which the basal excerpt was taken, to show students the real work and give them context for stories. At one point the young teacher appeared so intimidated by her experienced colleagues' teaching expertise that she was close to tears. In a moment, the NBCTs were volunteering to come into her room to show her how she could teach in the way they were describing, assuaging her concerns, and assuring her that soon she too would be teaching an expert vocabulary lesson.

Perhaps the most striking feature of Adam Elementary was the amount of professional conversation about teaching and learning that occurred everyday at the school. As one NBCT put it, "Teachers talking about their practice is what this school is all about." Or as another teacher told us, "We are all reflecting now on what works and what does not. We are always questioning practice. That is what the National Board is all about."

The depth of the cultural change at Adam Elementary and in the district is illustrated by a recent debate over curriculum policy. A small group of NBCTs at Adam led a larger cadre of their colleagues in a presentation to the local school board, arguing against the acceptance of a \$1.2 million federally-funded *Reading First* grant. For them the *Reading First* program came with "too many strings" and would force them to teach reading uniformly. The teachers were able to point to the success they were having with their current approaches and argued for adapting instruction and materials to serve all students' literacy needs. The superintendent publicly backed the teachers and the school board voted to turn down the grant.

Implications of the Adam Elementary School Success Story

The success of Adam Elementary School is not simply a story of increasing numbers of NBCTs in the school. And, it is not just about having a supportive superintendent and administrators who are National Board certified. The Adam example points to the importance of the strategic use of NBCTs and the National Board standards to guide and promote school change. While most of the other schools that we visited helped us understand what conditions and circumstances created barriers to NBCTs contributing to the improvement of low-performing schools, the Adam Elementary School example underscores the importance of building a school culture focused on teaching and learning. Adam is a school where teachers and students are continually learning.

Adam school culture was enabled by state policies that encouraged teachers to earn national board certification. In addition, districts policies and support programs for National Board candidates, along with community awareness and support for NBCTs, were well aligned with the efforts underway at Adam. The fact that the principal and the assistant principal had both earned national board certification was crucial to their understanding of National Board processes and standards. However, it was their ability to infuse the National Board standards and the practices that

paralleled the certification process into the school's professional development and improvement strategy that made the difference in the school's teaching and learning culture.

Conclusion

It remains to be seen if the National Board for Professional Teaching Standards will transform the profession in ways that its founders envisioned. But our study suggests that in and of itself the National Board for Professional Teaching Standards is not an effective strategy for transforming low-performing schools. Major obstacles stand in way of employing NBCTs to lead school reform efforts.

As this study has shown, NBCTs are less likely to be working in the schools that serve poor, minority, and low-performing students than in schools that serve more advantaged students. Remediating this situation will not be easy. Once certified, few NBCTs voluntarily transfer to low-performing schools. Although NBCTs indicate that financial incentives would be important for them to consider transferring to a low-performing school, they also point to the importance of good working conditions, a strong and effective principal, and supportive collegial relationships.

Although policymakers across the country are considering various financial incentives and differential pay schemes to attract NBCTs and other accomplished teachers to low-performing schools, our findings suggest that financial incentives alone are unlikely to succeed. A more promising approach was in evidence in Los Angeles and at Adam Elementary School. In both cases, the strategy was to identify and support teachers already in the schools to become board certified. This grow-your-own strategy took advantage of existing financial incentives and combined those with support and training programs. In the case of Adam, the school took the additional step of infusing NBPTS processes and standards into the daily work of teachers. Key to taking that next step was the experience of the school's administrators with the certification process.

As an aside, it is important to note that targeted financial incentives can have unintended consequences. In one school we visited with a small number of NBCTs, student test scores improved enough to move the school out of the low-performing category. No longer eligible for financial awards, newer teachers in the school were discouraged from earning national board certification. Regardless of where NBCTs were working, our study found that they were largely underutilized. NBCTs' roles remained essentially the same following their certification, with the exception of their increased involvement in supporting certification candidates. A major element of this underutilization of NBCTs appears to be tied to the structure of the teaching profession and the subsequent lack of time available for NBCTs to take on new leadership roles. However, as we saw at Adam Elementary School, creative principals can reorganize their schools to allow teachers time to work together on instructional improvement.

The National Board for Professional Teaching Standards was created as a long-term strategy for professionalizing teaching. The expectation is that the professionalization of teaching will eventually result in improvements in student learning. But, as this study illustrated, the placement of NBCTs in low-performing schools is not an effective stand-alone school-reform strategy. In our search to define the conditions and circumstances necessary for NBCTs to improve low-performing schools, we started with the basics: NBCTs needed to teach in low-performing schools and be given opportunities to make contributions to school improvement beyond their own classrooms. This turned out to be disappointingly rare in practice. There was little evidence that NBCTs sought or were given the opportunity to move beyond the conventional obligations of classroom teaching.

Even when the basics were in place, we found a myriad of barriers to school improvement that impeded even the most creative group of NBCTs. Even in schools with adequate and stable

resources, aligned state, district, and school policies, and school administrators who were knowledgeable about the certification processes and standards, other conditions and circumstances were necessary for NBCTs to help transform a low-performing school. Most importantly, the culture of the school had to change in fundamental ways so that all teachers in the school were in a continuing process of learning and improving their practice. To allow for such learning, the school schedule had to be altered so that teachers had time to work together. And to have teachers learn together required that many of the norms of the profession had to change as well. For example, teaching would have to be a much more public activity so that each teacher's practice could be examined. Similarly, the principal's responsibilities would need to be primarily focused on teaching and learning. In addition, district officials would need to view their job as supporting teaching and learning.

Thus, what this study found was that not only are NBCTs maldistributed and underutilized, but that the ability of NBCTs to contribute to the transformation of low-performing schools was dependent on the principal's ability to use national board certification processes and standards as the center of a school improvement strategy as well as teachers' own inclinations to view their profession differently.

Establishing such conditions and circumstances and changing school culture largely defies the blunt instruments available to policymakers. However, policymakers can establish the preconditions necessary for the transformation of school culture, including the equitable distribution of resources and the steps necessary to populate low-performing schools with NBCTs. As our research shows, a key step requires making principals national board certified, or at least well-versed in national board processes and standards, and then trained in how to infuse national board processes and standards into the daily routine of their school. Policy-makers expecting NBCTs to contribute to the transformation of low-performing schools without the active support and participation of principals will be disappointed.

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