

National Board-certified Teachers: *Can They Make a Difference in Maine Schools?*

by Sarah V. Mackenzie and Walter J. Harris



The National Board for Professional Teaching Standards (NBPTS) was created in an effort to improve the status of teaching as a career. In 2006, the Maine legislature authorized a salary supplement for Maine teachers who were certified by the NBPTS. Sarah Mackenzie and Walter Harris describe here their study focused on the value of NBPTS certification in professional development and teacher leadership; teacher motivation for seeking certification; barriers to certification; and how Maine teachers might be encouraged to seek certification. They point out that National Board certification is one among many ways to support and improve the quality of teaching in Maine. 🐉

Seemingly out of the blue in the closing days of the 2006 session, educators around Maine heard that the state legislature had authorized an annual salary supplement for classroom teachers certified by the National Board of Professional Teaching Standards (NBPTS). The provision (Maine Revised Statutes Title 20-A §13013-A) authorizes a \$3,000 annual payment to classroom teachers who are NBPTS-certified teachers for the 10-year life of the certificate.

Representative Stephen Bowen's intent for this legislation was to provide recognition for practicing teachers who were certified by the NBPTS and employed in their field of certification. According to a staff member of the Maine Department of Education, Bowen felt that "in addition to increasing the minimum salary of all teachers it was also important to recognize teachers who had advanced in preparation and certification with a salary supplement" (Greg Scott personal communication, August 31, 2007). Another Department of Education staff member said there had not been any serious consideration of such a supplement previously, since the state and national teachers' organizations had encouraged states to pay application fees for interested teachers in the hope that local districts would consider a supplement for teachers who were successful in achieving certification (Ellen Holmes personal communication, September 13, 2007).

As the Maine Department of Education prepared to distribute the salary supplement (as per Gendron 2006), the State Board of Education asked the Maine Education Policy Research Institute to conduct a study of perceptions of teachers and administrators with regard to NBPTS certification in Maine. The report was presented to the board in June 2007 (Harris and Mackenzie 2007).

NBPTS claims its work has the potential to improve teaching and learning in the country because it provides a solid professional development experience emphasizing collegiality and collaboration. Furthermore, certification provides a foundation for strong instructional leadership. In this paper, we delve more fully into the data gathered from Maine's board-certified teachers in the Maine Education Policy Research Institute study and compare these data with national trends with regard to the impact of NBPTS certification on students, teachers, and schools. We explore the value

of NBPTS certification as a form of professional development and vehicle for teacher leadership and look into the motivation of Maine teachers who seek National Board status. In addition, we consider some implications of the research in light of the recent legislation for Maine.

OVERVIEW OF THE NATIONAL BOARD FOR PROFESSIONAL TEACHING STANDARDS

NBPTS was founded in 1987 as a private, non-profit organization with funding from the Carnegie Corporation. The creation of a professional standards board was one prong of a comprehensive plan to "redefine teaching as a career" (Carnegie Forum 1986). It bestows national certification on teachers who demonstrate fulfillment of "high and rigorous standards" of teaching (Carnegie Forum 1986). A federal grant provided funds to begin research and development of the certification system. The standards are developed primarily by practicing teachers in a specific area or discipline and are intended to identify the practices and dispositions of advanced teachers as distinguished from beginning teachers. Nevertheless, some educators and scholars have argued that the specific standards promote a particular way of conceiving of teaching practice that may not be useful or appropriate in all contexts.

The first class of teachers was certified in 1994, and the number of certified teachers has grown rapidly, from 16,000 in 2001 to more than 55,000 in 2006 (National Board for Professional Teaching Standards 2007). Ninety-two NBPTS-certified teachers work in Maine schools, and 104 have received certification while they taught in Maine. Thirty-four districts in Maine employ NBPTS-certified teachers; 50 (54 percent) of the 92 total are employed in three districts: MSAD 75 (Topsham), Falmouth, and MSAD 51 (Cumberland). Many school systems, including several in Maine, have provided support for the assessment process and/or salary supplements.

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NBPTS offers 24 certificates that cover 15 subject areas across seven student age categories. Thirty-three Maine NBPTS-certified teachers are certified as generalists in early and middle childhood; 42 hold certificates in subject areas, mostly social studies/history, English, language arts, and science. A few teachers achieved certificates in career and technical education, school counseling, math, music, library, and art.

To achieve NBPTS certification, teachers must first apply to be considered candidates. Presently the application fee is \$2,600. Candidates provide specific evidence of their teaching practice that exemplifies the organization's five core propositions:

- 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 their experience.
- Teachers are members of learning communities.

The evidence consists of four or five portfolio entries containing the candidate's analysis and reflection on student work and their own teaching along with documentation of extensive work with families, the community, colleagues, and professional organizations. Candidates must also demonstrate content and pedagogical knowledge on a series of standardized tests.

RESEARCH ON NBPTS-CERTIFIED TEACHERS

The National Board for Professional Teaching Standards celebrates its 20th anniversary this year. The board and its work have been studied extensively. States and localities where there is a concentration of NBPTS-certified teachers have been the focus of recent studies to see if the collectivity of accomplished teachers experienced in collaborative reflection on practice makes a difference in school reform and student learning. Another focus of both incentives and

research, however, is the extent to which NBPTS-certified teachers teach in and have an effect on student achievement in underperforming schools.

Initially the Maine Education Policy Research Institute study had a three-year time frame, but it was reduced to one year so the research questions were therefore refocused to these:

1. What impact does the process of applying for and receiving NBPTS certification have on teachers?
2. What impact does NBPTS certification have on teachers' teaching responsibilities, teaching loads, and teacher retention?
3. How are aspects of school culture (e.g., level of collaboration, opportunities for professional development, communication, morale, job satisfaction) affected by the NBPTS certification of one or more teachers?

The study involved multiple methods of data collection to gain the perspectives of educators in Maine. We conducted structured interviews of 16 NBPTS-certified teachers, two superintendents, and four principals in two school systems where there seemed to be a concerted effort to promote the certification. To augment data from interviews, we surveyed the remaining 74 NBPTS-certified teachers in the state for whom valid addresses were available. Forty-seven surveys were returned, representing a return rate of 63 percent. We conducted interviews with seven superintendents and six principals in districts with no NBPTS-certified teachers. To gain understanding of what factors might inhibit teachers from applying for NBPTS certification, we surveyed 394 teachers eligible for NBPTS certification, but who had not applied. Those surveyed taught in districts comparable to the target districts, but these districts employed no NBPTS-certified teachers. The return rate for this survey was 28 percent.

In the following sections we highlight some of the relevant research on NBPTS teachers nationally as a backdrop for the study of teachers in Maine. This review is not intended to be exhaustive; rather its

purpose is to indicate some of the research findings in particular areas of interest. We encourage people interested in particular areas of inquiry to look at the NBPTS Web site for extensive lists of studies.

National Board Certification's Impact on Students

Recent studies conducted in states where there are many NBPTS-certified teachers and good educational data systems that allow for extraction of longitudinal student-level achievement data provide equivocal support for the notion that the students of NBPTS-certified teachers achieve more than students of teachers who are not certified. A Tennessee study concluded that, although there was a positive effect gain of about two percent in student achievement, none of 16 NBPTS-certified teachers examined produced achievement gains in their students of sufficient magnitude to qualify for bonus pay in the Chattanooga school district, which required an achievement gain of 15 percent of the local district average (Stone 2002). Similarly, in a large study of the gain scores, the difference between two test scores at different points in time, of more than 100,000 high school mathematics students in Miami-Dade County, Florida, Cavalluzzo (2004) found that 61 NBPTS-certified teachers produced gains of 1.25 points per year higher than the much larger number of non-NBPTS-certified teachers. Although statistically significant, the practical difference of 1.25 points is quite small. In a study in 14 Arizona school districts, students in grades three through six taught by 35 NBPTS-certified teachers had significantly higher gain scores—essentially equivalent to spending an additional month in school each year—than students of non-board-certified teachers (Vandervoort, Amrein-Beardsley and Berliner 2004).

Even studies within the same state show mixed evidence of positive academic effects. An early study in North Carolina found evidence of deeper learning in the writing of students taught by 35 NBPTS-certified teachers as compared to results from students whose teachers were not board certified (Bond et al. 2000). Another North Carolina study compared 303 NBPTS-certified teachers to their non-certified colleagues by examining the reading and math gain scores of students in third through fifth grades. The study found students of NBPTS-certified teachers gained slightly

more than students taught by teachers who were not certified or were unsuccessful applicants for the certification (Goldhaber and Anthony 2004). They caution, however, that their data are based on early cohorts of NBPTS-certified teachers (1996–1999). Another study compared the end-of-grade exam scores of fourth through eighth grade students in two North Carolina school districts. This study indicated that students of NBPTS-certified teachers did not have better rates of academic progress than students of other teachers (Sanders, Ashton and Wright 2005).

Examining the connection between teachers who hold NBPTS certification and their students' achievement was not the intent of the Maine study. We asked the NBPTS-certified teachers we interviewed, though, if they could cite evidence of improved student learning. All responses to this question indicated that, while these teachers believe their teaching had improved and that they were creating better conditions for learning, they could not describe specific evidence that their improved teaching resulted in increased student learning. To directly measure the extent to which Maine students benefit from NBPTS-certified teachers, the state will require a data system that allows for extraction of longitudinal student-level achievement data linked to specific teachers.

National Board Certification's Impact on Teachers

Teaching Practice

An assumption of NBPTS is that the certification process assures employers they have a superb teacher who meets high standards of excellence (National Board for Professional Teaching Standards 2007). In fact, the first-time pass rate is 48 percent. In lieu of clear evidence of improvement in achievement, educators operate on the theory that better teaching means improved learning results, and it may if we use other measures of quality of learning. NBPTS research (2007) indicates that NBPTS-certified teachers offer more challenging curriculum, robust evaluation methods, and more pointed feedback. Rotberg, Futrell and Lieberman (1998) had similar results although they wondered about the extent of the impact because so few teachers have applied for the certification nationwide.

Bond et al. (2000) examined the validity of NBPTS certification by comparing 31 NBPTS-certified teachers to 34 teachers who failed at initial attempts at certification. Based on the findings that NBPTS-certified teachers differ from non-certified teachers on 11 of 13 categories of classroom behavior, this study confirmed that teachers who achieve NBPTS certification use different classroom behaviors from teachers who do not achieve certification. More recent studies confirm the value of the NBPTS certification process as an effective way to improve teaching practice because it generates new learning in participants (Graham, Oliver and Oppong 2005; Lustick and Sykes 2006).

Many NBPTS-certified teachers in the Maine study said the process validated their teaching methods rather than exposed them to new pedagogies. Almost all of them mentioned, however, that they viewed the experience as enhancing their practice or pressing them toward greater clarity and goal-orientation. A science teacher said, “The value to me was to document and validate what I was doing before, and confirm, if it is a valid process, that I am a master teacher.” Some teachers mentioned areas of new teaching skill, e.g., inquiry science, use and production of non-print media, and technical writing.

Maine’s NBPTS-certified teachers perceived that their teaching improved. According to them, the essays they had to compile forced them to analyze and reflect on all aspects of their teaching, including setting goals, planning activities that match the goals, managing the experience for both individuals and groups, and documenting their work over time. They had to analyze the learning of several students and show how student learning developed as the year progressed. An elementary teacher in our study said, “I had to put everything under a microscope. I thought I was reflective before but this fine tuned what I was doing and how I was thinking about my teaching.”

Professional Development

NBPTS literature asserts that the certification process is a powerful growth experience for participating teachers and even holds the promise of bolstering reform efforts for all schools (National Board for Professional Teaching Standards 2007). Effective professional development should be ongoing

and related to one’s own students; it can lead to authentic reform when it is conducted collaboratively with other teachers in a school (Berg 2003).

A recent study involving interviews of 50 high school science, math, and English teachers found the process of examining one’s practice with others who have or are presently engaged in NBPTS certification valuable professional development (Park et al. 2007). The researchers saw evidence that the analysis and collaboration skills developed during this experience can have long-lasting results, especially if there is a core of teachers in one school or department who have internalized this analytical method.

Even though Lustick and Sykes (2006) found that the experience of NBPTS candidacy can be called “transformative professional development” for 40 percent of teachers, they wondered about the depth of the experience for the remaining 60 percent and how long the effects will continue in the “transformed” group. Nevertheless, they found the process useful as a way to nurture change for teachers.

Although some responses in the Maine study indicate the tension between seeing the experience as new learning versus showing what a good teacher is expected to do, some NBPTS-certified teachers were ripe for change. Less-experienced NBPTS-certified teachers indicated that the process offered an important developmental experience for them at a significant point in their careers. One high school social studies teacher said, “Since I was at a point of ‘stability,’ this helped me to push myself to continue to grow. It reinvigorated me. I was on the point of being too comfortable.” A young English teacher said, “I already had most of the skills. Graduate school honed them, but National Board certification hammered them home.” On the other hand, for experienced teachers, the work redirected or confirmed their methods. A veteran English teacher said, “Certification validated what I did.... I don’t think I’ve ever had an evaluation by an administrator that has been as thorough or as consistent. I think it is a good way of having a teacher check on what works and what could be improved.”

Even though the NBPTS-assessment process was described by most teachers as arduous, writing intensive, and time consuming, they found it beneficial. Many Maine teachers, however, mentioned two aspects

of NBPTS certification as problematic: they saw taking a standardized, timed test on both pedagogy and content as disconnected from the focus on school and classroom performance, and they were frustrated by the lack of feedback. Candidates receive a score for each entry and a total score, which represents passing or failing. Although a recent study of NBPTS-certified teachers in Maryland found that teachers felt the lack of feedback pushed them to deeper reflection (Coble 2005), Maine NBPTS-certified teachers were frustrated by the lack of feedback.

National Board Teacher Certification's Effect on Schools

Teacher Retention

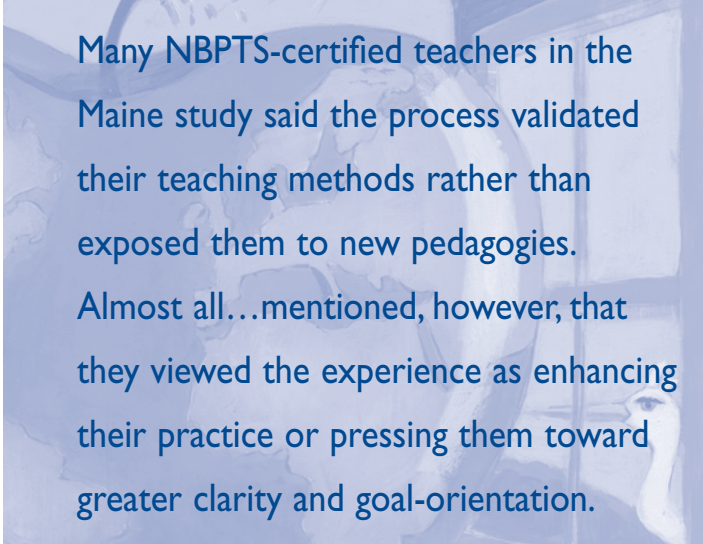
Quality teaching and student learning go hand-in-hand, but to have far-reaching effects, entire schools must be part of an ongoing improvement process. Schools benefit from NBPTS-certified teachers when they remain in a school and lead their fellow teachers by promoting collegiality and collaboration.

In North Carolina, NBPTS-certified teachers are more likely to leave one school for another in the same district or another district than non-NBPTS-certified teachers. They are no more likely than other teachers, however, to move into administrative positions. They are less likely to leave the state, perhaps due to the 12 percent salary supplement that North Carolina provides to NBPTS-certified teachers (Goldhaber and Hansen 2007). NBPTS-certified teachers are less likely to gravitate toward poor and rural schools and those with high percentages of minority students (Goldhaber and Hansen 2007; Koppich, Humphrey and Hough 2006). Recognizing that best teachers should go where there is the greatest need, states are adding more money to the supplements of teachers who work in high-need areas (Associated Press 2007). With so few NBPTS-certified teachers in Maine, it is hard to measure the impact of having National Board status on teachers' remaining in their jobs and schools.

Teacher Leadership

Remaining in the profession and in a school is one thing, but helping to change school culture, colleagues' teaching practices, and student learning

results is a different undertaking. A NBPTS-sponsored survey of 4,800 NBPTS-certified teachers paints a glowing picture of how deeply involved in leadership activities are NBPTS-certified teachers. All respondents (99.6 percent) said they hold leadership roles in their school and/or district; 90 percent said that NBPTS status enabled them to be more influential in their schools; and 83 percent mentor new or struggling teachers (National Board for Professional Teaching Standards 2001).



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Dan Lortie's (1975) famous study of teachers and teaching as a career published more than 30 years ago still looms over the teaching profession. He said teachers work in isolation; they are conservative rather than agents of change; they are focused on what is in front of them in their classrooms rather than thinking about the entire school. Sykes and his team of researchers (2006) found much of what Lortie wrote to be true even of NBPTS-certified teachers. In addition, in these researchers' interviews they found a tendency for NBPTS-certified teachers to bow to traditional, i.e., egalitarian, norms of the profession. However, sociograms created by colleagues indicate it is the board-certified teachers others seek out for help. In other words, their colleagues view them as experts even if the certified teachers themselves deny that distinction.

TABLE 1: **Percentage of NBPTS-certified Teachers Responding to Importance of Motivators (n = 47)**

Motivations	Least Important				Most Important
Confirm my skills	8.3	12.5	12.5	41.7	25.0
Increase salary	31.8	18.2	13.6	13.6	22.7
Gain recognition	13.0	39.1	30.4	8.7	8.7
Improve my teaching	0.0	4.0	12.0	36.0	48.0
Gain access to leadership positions	42.9	19.0	33.3	4.8	0.0

From the survey of Maine NBPTS-certified teachers, we gleaned that both colleagues and administrators ask a large majority of NBPTS-certified teachers for advice on curriculum or instruction. Only one-third of the survey respondents, though, indicated they had been asked to mentor a colleague. Many teachers responding to the survey might have been the only NBPTS-certified teacher in their school or district, but the interviews took place in two systems where there is a concentration of NBPTS-certified teachers. There we had a greater chance to probe NBPTS-certified teachers regarding collegial relationships. Teachers who sought National Board certification value collegial feedback, and their experience in the process of gaining the certificate offered a high level of constructive critique. Some NBPTS-certified teachers have been able to continue similar collegial relationships within departments or even across the school within trusting relationships with other NBPTS-certified teachers as well as others.

Many, even those in the systems with a concentration of NBPTS-certified teachers, however, pine for more collegial connection. Some said the school structure did not permit much collaboration and admitted, too, that the culture was not necessarily conducive to sharing ideas or issues of teaching practice. The culture of the school and of the department seems to determine levels of collegiality although the diverse opinions we gathered may also reflect levels of teacher development and experience.

Not surprisingly, differences across schools seemed to depend on the attitude of the principals and the way they involve board-certified teachers. Expert teachers can play an important role in improving instruction and promoting collective responsibility for improving student learning if administrators nurture

their leadership and enable their expertise to guide others (Koppich, Humphrey and Hough 2006). Although the Maine survey and interviews showed that few of the NBPTS-certified teachers have been asked to mentor new teachers, we see intimations that the situation may soon change as principals realize they have a reservoir of expertise

to call on. Administrators are hesitant to ask for formal help because of the teachers' contract; however, administrators in the districts with several NBPTS-certified teachers said they hoped to make NBPTS-certified teachers responsible for mentoring new teachers in the future.

Although teachers interviewed in the two Maine districts with concentrations of NBPTS-certified teachers indicated that leadership and mentoring activities were not common, survey respondents from other Maine districts described a different experience. More than half the survey respondents agreed that they were frequently asked for advice on matters of curriculum and instruction by teachers and administrators in their schools and that they believe they exert a positive influence on their colleagues. Somewhat less than half have been asked to serve as a teacher-leader in a formal capacity. It may be that in districts that have high concentrations of NBPTS-certified teachers, teacher leadership opportunities exist only for a few teachers, whereas there are more leadership opportunities for the NBPTS-certified teachers in districts with few other board-certified teachers.

Building Capacity for Change

With the increasing number of NBPTS-certified teachers nationally, there is growing interest in the organizational capacity-building of board-certified teachers. In our study, though, we were surprised to see that “gaining greater access to teacher leadership positions” was the least important motivator for teachers in pursuing NBPTS certification (Table 1). Most of the survey respondents indicated they already were leaders who had an influence on issues of teaching and learning as well as the direction of change in the school. A few respondents, though, indicated there

were cultural issues that interfered with others viewing them as leaders. For example, some respondents indicated the egalitarianism of the teaching profession or the attitudes of administrators toward teachers without formal administrative positions precluded their being accepted as leaders.

In interviews with teachers in schools with a concentration of certified teachers, we found a different situation. Almost all interviewees—administrators and teachers—agreed that having a number of NBPTS-certified teachers was an outgrowth of being a good school rather than the other way around. However, several of the NBPTS-certified teachers interviewed admitted that they feel underused as leaders or that the leadership roles they play do not have an effect on substantive issues related to improving student learning. Some of them are young and feel they have to bide their time, but they are frustrated. They said they do not want to become administrators, yet they want to deal with important instructional issues collaboratively with fellow faculty members.

The salary supplement can be viewed as an effective form of merit pay. It is based on an agreed upon standard of performance and judged by unbiased evaluators. The egalitarianism of the teaching profession, however, creates issues for both the NBPTS-certified teachers and their administrators. Principals feel they must be careful not to single out board-certified teachers as experts or praise them for their accomplishment. The NBPTS-certified teachers who feel they deserve acknowledgement get few compliments and are not selected for special duties.

Even though gaining National Board certification has improved their confidence and they like to encourage similar risk-taking on the part of others, NBPTS-certified teachers have to tread carefully with peers so as not to upset the delicate balance of parity. They must act as if they represent what all teachers do and are doing even though the others have not demonstrated their expertise. So both NBPTS-certified teachers and their administrators are in a bind. The picture is complicated, too, by the view that there are a few NBPTS-certified teachers who are not considered representatives of good teaching. This situation has the potential to undermine the legitimate basis of the certification for all who hold it. The ambiguous and even

TABLE 2: Reasons for Not Applying for NBPTS Certification

Reason	n	%
Lack of time due to personal commitments	79	72.5%
Lack of time due to professional commitments	58	53.2%
Lack of information about the application process	55	50.5%
Lack of information about the state salary supplement	35	32.1%
Lack of colleagues with whom to partner	32	29.4%
Other	31	28.4%
Lack of school district financial support	29	26.6%
Not interested	21	19.3%
Currently enrolled in a graduate program	17	15.6%
Don't believe NBPTS standards reflect best practice	16	14.7%

contradictory findings paint a complex picture of the extent to which NBPTS-certified teachers play significant roles in school change. The greater conundrum, though, is that a cadre of solid instructional leaders remains untapped.

MOTIVATORS AND BARRIERS TO APPLICATION FOR NATIONAL BOARD CERTIFICATION

In both interviews and surveys of Maine's NBPTS-certified teachers, we obtained data about teachers' motivations for pursuing NBPTS certification. Table 1 indicates that nearly half of the survey respondents pursued NBPTS certification to improve their teaching and to confirm their teaching skills, which parallels the professional development mission of NBPTS.

Many of Maine's NBPTS-certified teachers achieved certification before the state salary supplement and some work in districts that do not provide a salary supplement. In interviews, six of the 13 NBPTS-certified teachers who responded to a question about incentives said that a salary increase was a primary, but not the only, incentive for pursuing NBPTS certification.

Only 94 of Maine's approximately 16,000 classroom teachers have achieved NBPTS certification. To discover some of the barriers to certification, we identified two districts comparable to those with fairly high concentrations of NBPTS-certified teachers and surveyed teachers who were eligible

to apply for NBPTS certification but had not applied. Table 2 (page 101) reports why these teachers had not applied for NBPTS certification.

Lack of time because of personal and professional commitments were the two reasons most frequently checked. Lack of information about the NBPTS certification process was also a major factor for many. After reading a fact sheet about NBPTS certification and the salary supplement that was included with the survey, 46 percent said that they were possibly or highly likely to apply in the next three years. The majority of these teachers had fewer than 10 years of teaching experience. On the other hand, more veteran teachers (>20 years experience) said it was highly unlikely they would apply. Eighty-five (78 percent) of the 109 survey respondents felt that there was a lack of support available for teachers who pursue NBPTS certification.

We found in interviews with administrators that those in districts with a concentration of NBPTS-certified teachers were more knowledgeable about the process of NBPTS certification and generally were more encouraging than those administrators in the districts without NBPTS-certified teachers. Administrators in two districts with no board-certified teachers have seen increased interest in certification since the state salary supplement, while administrators in two other districts with no board-certified teachers said that few teachers had expressed an interest in NBPTS certification even though financial support was recently written into the union contract. Another administrator from a district with no board-certified teachers thought that the low level of interest may be because NBPTS certification is only one of several professional development options (including support for graduate study) in a formal district-wide professional development program.

DISCUSSION

National Board teacher certification is a means by which teachers closely examine their teaching practices and content knowledge and compare these to national standards. Such introspection validates teaching practices and can produce lasting changes in teaching behavior. Both national data and data collected in Maine from NBPTS-certified teachers

and school administrators support the notion that the process of achieving National Board certification is a useful professional development experience. Making their practice public and gaining the approval of the National Board confirms teachers' expertise. They have much to share with colleagues. In districts where few NBPTS-certified teachers are employed, leadership opportunities are frequent. Ironically, in districts with many NBPTS-certified teachers, there are fewer opportunities to share, leaving some teachers feeling under-used. Tapping into the expertise of teachers who have earned National Board certification, making all teachers aware of the NBPTS standards and process, and using the techniques required to look at practice could be useful to educators involved in considering ways to promote professional development.

Involve NBPTS-certified Teachers in the Professional Growth of All Teachers

A major recommendation this research suggests is to make greater use of NBPTS-certified teachers. These teachers are secure in their pedagogy, and more importantly, they know how to analyze and improve their teaching methods to meet the needs of students. They have immersed themselves in a process of reflection so they understand how to look at what they do, and how to adapt and hone it to meet students' needs. Their experience in reflecting on their practice could add much value to their own schools, other schools' professional development work, and to teacher preparation programs.

The culture of schools is changing as a result of many initiatives, but the implementation of professional learning communities (PLCs) certainly offers a venue for injecting the kind of inquiry into practice that NBPTS-certified teachers engage in. They can model the effective process and teach other teachers how to safely and carefully critique each other. They know how to probe teaching and generate differentiation strategies. NBPTS-certified teachers have the potential to be useful in their home environments, but we also have a statewide interest in using their expertise to build the capacity of the entire teacher corps. One school system in the study is implementing PLCs, and some of the NBPTS-certified teachers there indicated they have played a role in shaping the approach

to the work of their PLC. Certified teachers could assist others in thinking about how PLCs could engage teachers in inquiry into practice.

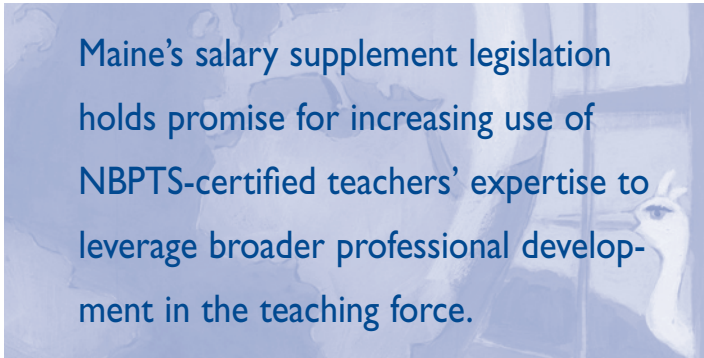
In other words, schools and districts can use the expertise of NBPTS-certified teachers within the context of a collegial and collaborative environment. This is not an argument for more formal roles for teacher-leaders and certainly not for increased hierarchy, especially in light of the growing support for distributive, collaborative leadership (Donaldson 2006; Fullan 2004; Hargreaves and Fink 2005; Spillane 2006). Rather the findings provide support for different types of roles within a collegial environment. Cultural change takes time and is best accomplished from the bottom up (Fullan 2004) and at the school level. Maine's salary supplement legislation holds promise for increasing use of NBPTS-certified teachers' expertise to leverage broader professional development in the teaching force. Accomplishing this cultural shift, however, will require sensitivity to the professional relationships that exist among teachers and between teachers and administrators.

Encourage Teachers to Apply for Certification

In spite of the salary supplement, many teachers are not motivated to go through the assessment process, and others lack information about the application process, which means that National Board certification will remain, for the time being at least, an exclusive distinction. The Maine Department of Education should ensure that all teachers receive information about NBPTS certification so that anyone who wants to apply has the opportunity to do so. The Department of Education also should be sure that administrators have the information they need about the NBPTS certification program and about the potential of the experience as professional development.

In Maine, more veteran teachers are NBPTS-certified than are early career teachers, although the number of certified early career teachers is growing. The early career teachers who were interviewed noted that the process of preparing their documentation for certification provided them with a big learning leap. They gained confidence in their work and learned new practices and new ways of thinking about their teaching. To encourage more early career teachers to go through

the NBPTS certification process, administrators and school board members might consider paying for their applications. School systems stand to gain much from the development of NBPTS-certified teachers for a small expenditure of money. Most Maine NBPTS-certified teachers said they were given some released time to prepare entries. Many availed themselves of the state-supported program (held on Saturdays) that helped candidates to critique their videotapes and receive feedback on their written work.



Maine's salary supplement legislation holds promise for increasing use of NBPTS-certified teachers' expertise to leverage broader professional development in the teaching force.

Many school systems support teachers in graduate programs for a certain number of credit hours a semester. The present university tuition is \$504 per credit hour. The fee for applying for National Board certification is presently \$2,600. If a graduate program consists of 36 to 39 credit hours, the cost for coursework greatly exceeds the application fee. Just as National Board certification ensures a bump in salary—in this case from the state—a graduate degree means a move up on the salary scale. They are different types of professional development, of course, and National Board certification is not applicable and useful to everyone. Nevertheless, it offers a professional growth opportunity to individuals for whom it is appropriate.

If teacher-preparation programs heightened awareness of the National Board stipend, it might mean that beginning teachers would apply early in their careers (teachers need to have three years of teaching experience in order to apply). In some states, notably North Carolina, teachers are expected to go through the process within a certain amount of time just as in many places teachers are expected to have a graduate degree after five years of teaching.

Incorporate NBPTS Standards and Practices into School Culture

School systems should consider embracing the teaching standards for National Board certification as one of the school systems in this study has done. The standards explicitly set out an enlarged understanding of the role of a teacher in a school. The standards portray today's excellent teachers as members of learning communities who understand their students' learning needs, examine data carefully, and continually challenge themselves to reflect on and improve their practice. Furthermore, the standards give added priority and emphasis to teachers understanding their communities and connecting in various ways with parents.

Encouraging teachers to seek National Board certification is one of many ways to support and improve quality teaching.

NBPTS processes represent strategies that can help to move teachers out of their comfort zones as they reach for higher levels of performance within the classroom and seek to work collaboratively with colleagues. The work teachers do documenting their practice for assessment by NBPTS offers useful ideas for the supervision and professional growth of all practicing teachers. NBPTS standards encourage reflection, a crucial tool for professional growth. Although teachers may recognize its importance, they may not engage in it or reflect as deeply without some prodding. The concept of professional learning communities, like that of critical friends groups, has much potential for structuring collegial conversations that will aid and support a reflective culture. Asking pre-service teachers to do deep and ongoing reflection about the work of a few students might be a way to embed this practice in teachers beginning their careers.

To change the culture of the school from one of individualism and autonomy to one of collaboration and shared responsibility, teachers should be encouraged to collect data on student learning and analyze

their own teaching performance. Administrators can encourage video recordings of teaching. Teachers who have immersed themselves in the NBPTS certification process are believers in the benefits of these techniques, so they may be the best people to introduce them to fellow teachers. There are many protocols for looking at student work and observing colleagues. Viewing a video makes it easier to have conversations about practice as the evidence is in front of everyone. And having opportunities to share student work and collaboratively reflect on teaching are good practices for PLCs. These conversations these activities inspire are important for infusing the culture with ongoing inquiry into what the needs of students are and how teachers can effectively nurture their learning.

NBPTS is offering a new opportunity called Take One! Teachers can submit a videotape entry for any certificate now offered. The score received can be applied to a full certificate at a later date. Schools have the opportunity to make completing an entry under this program a professional development offering for teachers in the school. NBPTS describes how half the teachers in one high school in Virginia each submitted an entry (NBPTS 2007) as a way to launch a cultural change in the school. Ellen Holmes, the Maine Department of Education staff member who is the liaison to NBPTS is enthusiastic about the possibility of the same kind of work in Maine schools (personal communication, September 13, 2007).

CONCLUSION

The intent of NBPTS is to raise the level of teaching practice in order to have far-reaching effects for as many students as possible. Maine's legislation that provides a salary supplement for the state's NBPTS-certified teachers shows regard for accomplished teachers and provides a framework for improving teaching practice. In and of itself, the process of preparing for National Board assessment is useful professional development that builds confidence, brings new insights, and adds to the repertoire of teachers. The supports provided within schools and at the state level demonstrate how people can get better at their craft: by making their practice public, receiving feedback, and reflecting deeply on ways to affect

individual student achievement. Having been immersed in this intense analysis, NBPTS-certified teachers are eager to share what they have learned about the process of collegial critique and about how schools can clarify and prioritize their mission to improve student learning.

Encouraging teachers to seek National Board certification is one of many ways to support and improve quality teaching. It can be viewed as a kind of merit pay or as a professional growth experience, similar to obtaining a master's degree, that is worthy of increased remuneration. At the very least, we can celebrate the accomplishments of the NBPTS-certified teachers in Maine as the legislature has. This policy provides food for thought about ways we can capitalize on the experience and expertise of these teachers just as we consider other ways to support and celebrate teacher professional growth. 🐟



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