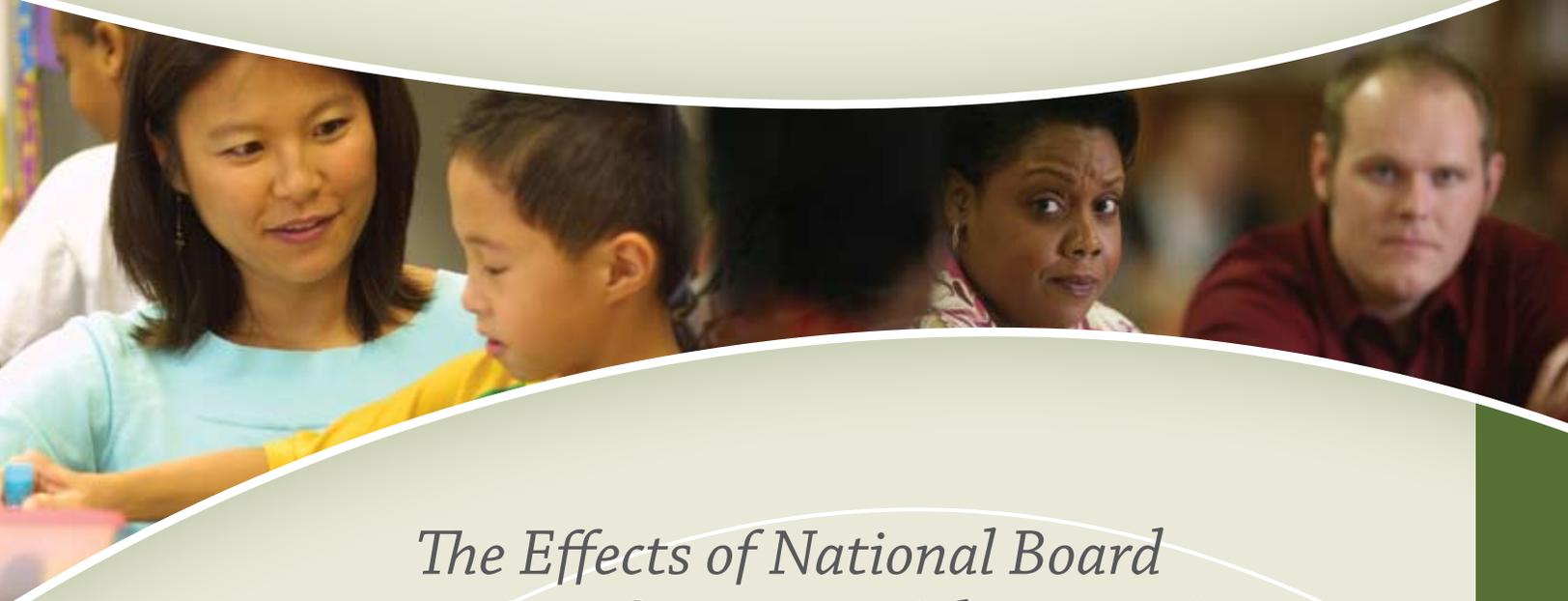


# Measuring What Matters



## *The Effects of National Board Certification on Advancing 21st Century Teaching and Learning*

A *TeacherSolutions* report by 10 National Board Certified Teachers  
Center for Teaching Quality



# Contents

Foreword..... 5

A Call to Leadership — Open Letter to NBCTs ..... 11

Executive Summary ..... 15

Introduction ..... 21

Part I — National Board Certification and Student Learning ..... 25

Part II — National Board Certification and Teacher Learning ..... 39

Findings and Recommendations ..... 47

Profiles of the *TeacherSolutions* NBCT Team ..... 51

Research Summaries ..... 55

Notes ..... 59





# Foreword

## Listening to National Board Certified Teachers (NBCTs)

More so than ever before, policymakers and the public believe the fate of American public education rests with teachers. Over the last 15 years, study after study points to the powerful effects of qualified teachers and quality teaching on student achievement. However, poor children and those of color are still far less likely to be taught by good teachers — no matter how “good” is defined.<sup>1</sup>

Unfortunately, little consensus exists among researchers and policymakers on how to define a qualified teacher and how to most effectively identify and reward effective teachers.

The state of teaching in America has inspired no shortage of passionate response. Bookshelves are filled with research reports and think tank policy tomes brimming with often conflicting prescriptions for what ails one of the nation’s most important professions. Some reformers call for teachers to be professionalized — with tougher standards, rigorous credentialing, and incentives to teach for a career. For them, knowledge of teaching and experience matter most for student learning.

Others call for teaching to be deregulated so a more academically oriented breed of teachers can be attracted to teaching and enter classrooms quickly — without too much concern for the “pedagogy” they know or how long they stay. For them, enthusiasm and a willingness to challenge tradition matter most for student learning. Each side has its empirical evidence, which they champion as they wage battle in the teaching quality wars. The National Board for Professional Teaching Standards (NBPTS) has found its way into the middle of this debate, which often takes on a red state/blue state-like quality.

Fueled by the recommendations of the 1986 Carnegie Forum on Education and the Economy report, *A Nation Prepared: Teachers for the 21st Century*, NBPTS has been built on the belief that the teaching profession was America’s “best hope” for restoring the nation’s competitive edge and called for the creation of an advanced certification system that identified and rewarded teachers who met “high standards.” NBPTS was created with the goal of determining whether practitioners know their subjects and how to teach them effectively to diverse learners — teaching’s double helix.

Proponents point out the National Board’s rigorous assessments are akin to the kind of performance tests that doctors, architects, and engineers take in order to meet high standards in their respective professions. Lee Shulman, the primary intellectual force behind the National Board’s development, initially saw NBPTS as a way to “make excellent teaching more salient and visible” and to “identify real excellence in teaching.” James Kelly, founding president of the National Board, viewed the certification process as a device to transform the culture of teaching by promoting a professional environment “in which teachers would communicate about practice and work collectively and collaboratively” and eventually be granted “enhanced professional roles” necessary for 21st century learning.<sup>ii</sup> Teachers who go through the assessments (even if they do not achieve certification) are virtually uniform in agreeing that the National Board process is the most significant professional growth experience in their careers (Cohen & Rice).

Opponents argue, in turn, that education has yet to develop the high levels of codified knowledge that serve as the bedrock for advanced credentialing systems in professions like medicine, architecture, and engineering. For skeptics of the professionalism movement, the National Board Certification process represents more “burgeoning rules and tests” that “have little to do with true classroom performance.”<sup>iii</sup> They also argue that student achievement tests — the current coin of the realm in educational accountability — are not prominent enough in the National Board’s assessments and that too few NBCTs are teaching in the nation’s high needs schools.<sup>iv</sup> Analysts have argued that the vast majority of incentives promoting National Board Certification for teachers, while important in encouraging and recognizing accomplished teachers, “are generally divorced from efforts to make the distribution of top-flight teachers more equitable.”<sup>v</sup>

Many policymakers — from both sides of the political aisle — have welcomed the assessments of the National Board as a tool to professionalize teaching. Teaching has long been described as a “semi-profession” due to its truncated training, its unenforced standards, and its ill-defined body of knowledge. While the National Board generated strong bipartisan support in its early years of development, several researchers and education think tank analysts have begun to question the cost-benefits of the assessments. The arguments for and against the return on investment often seem more political than substantive.

Hundreds of studies have been conducted about the effects of National Board Certification on teacher and student learning — with growing numbers focused on how students of NBCTs perform on standardized achievement tests. Some researchers have concluded that students of NBCTs outperform their

counterparts taught by non-NBCTs on state-administered multiple-choice tests. A few others — some using the same data sets — have reached different conclusions, suggesting that “there was basically no difference in the achievement levels of students whose teachers earned the prestigious NBPTS credential, those who tried but failed to earn it, those who never tried to get the certification, or those who earned it after the student test-score data was collected.”<sup>vi</sup> Other researchers have surfaced very different conclusions as to whether the National Board assessment process does indeed promote teacher learning that means something for student achievement.

Some of these studies are substantial and draw on the canons of sound educational research. Others appear less interested in scholarly principles than in confirming a supposition. Nevertheless, the methodologies and databases used by the researchers have varied immensely. None are immune to methodological problems or shortcomings. Decisions made by researchers about how to select their samples, what variables to include in their statistical equations, or what outcome measurements to use all influence the findings that ultimately surface.

While the vast majority of the research on the effects of the National Board assessment process on teacher and student learning is quite favorable, media reports range in tone from dismissive to cautiously hopeful to overly enthusiastic. The bulk of writing around the National Board and the future of the teaching profession tends to share one unfortunate characteristic — distance from the everyday realities of today’s schools. As a result, the public understanding of NBCTs is muddled and incomplete. It is time to hear from NBCTs themselves.

The National Board Certification process, designed for 25 different subject areas and student developmental age levels, is very similar to ways that other professions judge their accomplished practitioners. The assessment process, which costs \$2,500, demands that candidates with at least three years of experience complete a portfolio that mirrors the rigors of an Architect Registration Examination, as well as an online battery measuring a teacher’s content knowledge. During the process, candidates are required to analyze video recordings of their classroom teaching, assess why their students meet (or do not meet) standards, document their educational accomplishments outside of the regular classroom, and offer evidence of how their efforts improve student learning.

The National Board reports that roughly 40 percent of teachers who complete the assessment achieve advanced certification in the first attempt — a figure that rises to 65 percent by the third try. Since the launch of its field tests in the early 1990’s, the process has identified 64,000 teachers who have earned the distinction of being National Board Certified. Many NBCTs can be found in states like North Carolina and Florida where policymakers have enacted comprehensive incentives for teachers to participate in the process and meet its standards. Although at present National Board Certified Teachers only represent about 2 percent of our nation’s teachers, a legitimate marker has been set for what it means to be an accomplished teacher.

## Listening to the Real Experts — Teachers

This *TeacherSolutions* report, written by a team of 10 highly successful NBCTs, brings unique ideas to the debate over identifying effective teachers. It is aimed at helping policymakers learn from — and with — some of our nation’s best classroom educators. This report unpacks the research on the National Board Certification process in ways that traditional education researchers and labor economists just do not know how to do.

This outstanding team of NBCTs (see p. 51 for a list of participants) reviewed a wide range of National Board research studies and participated in webinars with a number of scholars who conducted or analyzed the research findings. They examined the pros and cons of different research methods, and they applied their own experiences to what they heard and learned — always reflecting on the intersection of large-scale empirical data, their own development as expert teachers, and the nature of the students they teach and serve. They deliberated and debated among themselves. They also reached out to colleagues — including members of the Teacher Leaders Network — to generate additional perspectives and insights. This is their product — developed largely within the boundaries of our virtual community support system. During the day, these ten NBCTs taught students and coached their colleagues. In the evening, they worked on this report.

Their insights take us far beyond the usual rhetoric, the blanket acceptance of current certification regimes, or the unquestioning willingness to fall back on student test scores as the major measurement of teaching performance. They speak boldly to how and why student test scores matter and where they fall short in defining quality teaching and learning for 21st century schools.

They also help explain the conflicting results reported by researchers about the merits of the National Board process. They elucidate why and how NBCTs may not produce higher student achievement gains during the year they certify. They offer razor-sharp recommendations to researchers who don’t possess a direct understanding of school context and its relationship to “teacher effects.” And they challenge policymakers to support programs that not only develop more NBCTs but also reward them for spreading their expertise.

We are deeply grateful for the support provided by the National Board for Professional Teaching Standards in this effort. At the same time, it is important to say that NBPTS in no way constrained our efforts in identifying the NBCTs who worked on this report or attempted to influence their findings. NBPTS wanted an independent review from NBCTs and this is it. I am particularly thankful for the leadership of Joseph A. Aguerrebere, President and CEO

of NBPTS, who quickly embraced the idea of an independent review of the research on the effects of the National Board Certification process by NBCTs themselves. In many circles, this is still a novel idea.

We are also appreciative of Dorothea Anagnostopoulos, Jill Harrison Berg, Linda Darling-Hammond, Dan Goldhaber, Ann Harman, Doug Harris, and Jana Hunzicker — researchers and scholars who gave us their time and expertise. Each was smart, gracious, and open — and proved that they too could learn online as they worked with the NBCT team in CTQ’s virtual learning community environment.

As you read this *TeacherSolutions* report you will quickly see and feel that these 10 highly accomplished teachers — like many thousands of other teachers in our nation — are willing and able to advance their profession in the best interests of the students, schools, and communities they serve. This report is theirs — replete with their knowledge, experiences, and insights. Read carefully. They are the real experts.

**Barnett Berry**

*Founder and CEO*

Center for Teaching Quality

June 2008



# A Call to Leadership

## An Open Letter to America’s National Board Certified Teachers

Dear Colleagues,

We are a diverse group of ten National Board Certified Teachers (NBCTs) from across the nation, commissioned by the Center for Teaching Quality (CTQ) and the National Board for Professional Teaching Standards to consider the impact of National Board Certification on our students, our practice, and our profession.

Working together as a CTQ-supported *TeacherSolutions* team, we have spent more than six months studying the existing research and published opinion about the National Board Certification process. Our mandate has been to thoughtfully and candidly assess the influence of national standards and certification for teachers, both as a policy initiative and a professional growth experience. In doing so, we have reflected not only upon researchers’ findings and recommendations but on our personal experiences in many different teaching contexts.

In that respect, this report is unique. It is the first to offer the perspective of real teachers who work in real classrooms — teachers who, like you, have sought and earned National Board Certification and have been profoundly changed by the experience. We began this work convinced by the evidence of our own practice that the standards under girding the National Board Certification process not only define accomplished teaching but have the potential to transform our schools. That is still our conviction today.

As a result of our collaborative journey, we have also gained a deeper understanding of the factors that diminish the impact of quality teaching standards on school performance. Chief among them is this:

***Teachers are not yet considered full partners in the important work of educational reform.***

We believe National Board Certified Teachers are uniquely positioned to challenge this outdated perception of teachers as mere instruments of policy and not co-creators. It is time for NBCTs to use what we know, as exemplary teachers, to lead our schools, colleagues, and policymakers toward more effective decisions and practices focused on genuine student learning.

*This open letter to you, our fellow NBCTs, is our call to action.*

It is time for us to begin leading *from the classroom*, to be our own best advocates for positive change — for policies and practices we know from experience will work.

We cannot wait to be invited to the policy table. Nor can we wait for any organization or initiative to guide us, endorse us, or train us. We invite their support, but we must begin at once to find our own voices, to hone our core messages, and develop our own leadership ideas and muscle, both personally and collectively.

## Let us act, not react

If we continue to sit by and let others define *effective teaching*, we will always be reactors, not actors, on the school reform stage where the policies that control our daily work are played out.

Studying a decade's worth of research on the value of National Board Certification, our *TeacherSolutions* NBCT team found a *great disconnect between what matters most to teaching effectiveness and what was actually being measured* by researchers, both in terms of teacher efficacy and student learning. Research conclusions and policy implications in the research we studied were often based on *limited or misguided thinking about what effective teaching looks like*, and the evaluation of student learning was nearly always confined to test scores, not authentic work products.

We were also struck by the *inadequate vision of quality professional development* embedded in many studies of the National Board Certification process. We found little acknowledgement that *the crucial catalyst for meaningful and sustainable professional growth is a rich description of accomplished practice*. Higher standards and expectations for student learning *must* be accompanied by a vibrant, detailed picture of what successful teachers know and can do to reach those goals. The existing research does not embrace, much less illuminate, this concept of exceptional, skilled teaching.

We believe National Board Certified Teachers can inspire and guide the work of re-imagining the teaching profession in their districts and states. We recognize that many exemplary teacher leaders are not National Board Certified, and we welcome them as partners. We also know that the highest use of the NBCT designation is making a lasting difference in the work we love, and so we make this direct appeal to you.

***We challenge our National Board Certified colleagues to join us in building the profession as we:***

- Establish and grow local and state networks dedicated to educational problem-solving and innovation.

- Add to the knowledge base about effective teaching through classroom-based research that documents and spreads ideas about practice.
- Become informed and active participants in the discourse about educational policy matters, from the building level to the national arena.
- Serve in mentoring, peer coaching, and other instructional leadership roles that support colleagues who are striving to improve their practice.
- Speak out on key questions and issues, from a teaching perspective.
- Design our own collaborative experiences for professional learning and leadership development, creating a robust vision of what it means to be an effective teacher leader and pursuing that vision together.

We encourage NBCTs to look around, to scrutinize the policy terrain and the everyday practices of your schools and districts. *Do you believe, as we do, that the teaching profession is at a critical juncture? Which road lies ahead?*

Will teaching become a technical occupation, staffed by a revolving-door cadre of entry-level knowledge workers who follow instructional templates and are judged by narrow data sets?

Or will we finally develop and realize a conception of teaching as complex, nuanced professional work, supported by a strong base of knowledge and constant inquiry, and marked by commonly accepted and rigorous standards of practice?

If NBCTs fail to seize the opportunity for leadership that grows out of our shared achievement, we believe America's teachers are much more likely to travel the first path than the second.

There is ample evidence that top-down mandates have not improved student learning or "teacher-proofed" our schools. The public is coming to see that you cannot teach children from the halls of Congress or the cubicles of education publishing houses. As NBCTs, we have demonstrated our mastery of effective teaching practice. We understand how to teach students at the highest levels of learning.

We know what to do. But if we ever hope to move from "know" to "do," *we must also learn to lead at the highest levels.*

Our best to you — our colleagues,  
**The *TeacherSolutions* NBCT Team**



# Executive Summary

In the fall of 2007, the Center for Teaching Quality (CTQ) and the National Board for Professional Teaching Standards (NBPTS) commissioned our team — a diverse group of 10 National Board Certified Teachers (NBCTs) from across the nation — to consider the impact of National Board Certification on our students, our practice, and our profession.

Employing CTQ’s *TeacherSolutions* teacher leadership model, we spent more than six months studying existing research and published opinion, interviewing researchers and other scholars, and candidly deliberating among ourselves about the National Board process. All of our conversation revolved around a central question: *What have been the effects of a national standards and certification process for teachers — both as a policy initiative and as a professional growth experience?*

Our report is the first to offer a policy perspective from the point of view of classroom teachers who have sought and earned National Board Certification. In preparing our findings and recommendations, our *TeacherSolutions* team drew not only upon the large body of National Board research and the many artifacts emerging from the national policy debate, but upon our own professional experiences as NBCTs working in many different teaching contexts.

## Overview

Through our collective study and dialogue, we have affirmed our belief that the National Board process provides an excellent opportunity for teacher growth and development. We have also concluded that the current methodologies used to measure the effects of this advanced certification process on student achievement and teaching quality have yet to yield accurate results — a dilemma that speaks to larger issues of student learning and assessment in a transforming educational environment.

In the ongoing discourse around “21st century learning” for today’s students, there are few points of absolute agreement. Does 21st century learning mean an intense focus on math, science, and technology use, with clear, quantifiable learning goals? Does it mean a demonstrable new appreciation for global citizenship, tolerance, cultures, and languages? Should we be re-framing our educational ideas and programs toward innovation, creative thinking, design, and collaboration?

The debate continues, but most everyone seems to agree on two points. The nation must restructure its educational goals and practices to meet the future needs of our citizenry and its most important resource — our children. And teachers will remain critical and central to achieving these goals.

**As National Board Certified Teachers who practice our profession daily in America’s diverse public schools, we see a large gap between the emerging vision of good teaching for 21st century needs and the outdated tools and language currently used to appraise and quantify teacher effectiveness. This dichotomy**

was apparent in much of the National Board research we perused. The researchers' conclusions and policy implications were often based *on limited or misguided thinking about what effective teaching looks like*, and their evaluation of student attainment was nearly always confined to test scores, not authentic work products that offer multi-dimensional evidence of learning.

It is a complicated challenge to measure teaching and its impact on students, but difficult and important work deserves equally complex and thoughtful assessment. Before we can assess (and replicate) effective and engaging teaching, we need a rich and well-developed portrait of what it looks like — from everyday classroom practice to its end product, student learning. We cannot be satisfied with the limited, inadequate information about teaching quality yielded by standardized test results.

In our review of the research, we were also struck by the *inadequate vision of quality professional development* in many of the studies that delve into the relationship between the National Board process and professional growth. We found little acknowledgement that *the crucial catalyst for meaningful and sustainable professional growth is a rich description of accomplished practice*. We believe higher standards and expectations for student learning *must* be accompanied by a vibrant, detailed picture of what successful teachers know and can do to reach those goals. The existing research does not embrace, much less illuminate, this concept of exceptional, skilled teaching.

Our nation urgently needs robust descriptors and evaluations of teaching and learning that match the knowledge and skills needed by citizens in this new millennium. We believe the principles and propositions that undergird National Board Certification represent a rigorous but flexible foundation and template that can help America put together the teaching force we need to adapt to a changing world.

**We sense a sea change in America's thinking** about what it means to hold students and teachers "accountable" for learning — about the true meaning of "high stakes" education in a global economy where we can no longer take our preeminence for granted. It would be ironic — and tragic — if, in the midst of an emerging new consensus about effective schooling in the 21st century, the inadequacies of current research caused our nation's policymakers to lose faith in our best exemplar of accomplished teaching.

## Findings and Recommendations

Our careful examination of the research and the policy landscape surrounding National Board Certification leads us to offer recommendations for three audiences: researchers, policymakers, and the National Board for Professional Teaching Standards.

### For Researchers

Much of the research measuring the impact of National Board Certification focuses solely on student test scores. These standardized data offer a convenient and

readily available research base but cannot fully capture the value that accomplished teachers add to student learning. Researchers need to ask different questions and use multiple, diverse indicators of teaching effectiveness in ascertaining the impact of NBCTs on student learning, and the impact of National Board Certification on teacher practice.

- Relevant studies will measure the effects of National Board Certification on student learning using multiple measures (e.g., authentic assessments, project-based learning products, student engagement, reduced discipline, drop-out rates) as well as the “snapshot” data resulting from standardized tests.
- Careful researchers will engage NBCTs themselves in the process of research study design and development in order to create more robust research models that include multiple measures of student growth.
- Researchers should conduct more studies on the dimensions of effective teaching, how teachers advance student learning, and how they spread their expertise. A potentially rich resource to inform this research is the massive and consistently updated library of videos, commentaries, and student work submitted to NBPTS from certification candidates annually. Studies should examine the top tier of NBCT submissions to find commonalities and begin expanding and deepening the definition of what “effective teaching” looks like.
- Researchers should further examine how NBCTs serve as an organizational resource for the entire public education system. For example, scholars might identify and document school-based models where NBCTs have been effective and examine how to bring these models to scale, reproducing them in diverse contexts.
- Before proposing policy interventions, researchers should demonstrate a clear understanding of the purposes and processes of National Board Certification. In the current research climate, we see too many examples of researchers redefining these purposes and processes (which have been clearly stated by NBPTS) to fit their own policy agendas.

## For Policymakers

Much of the policy debate around National Board Certification has taken place out of the hearing of NBCTs. As a result, policymakers have often acted without considering the insights of expert practitioners who have successfully completed the process and applied the understandings they gained to their own professional work.

*Here is what NBCTs know from their experience as candidates and mentors of other candidates:* The National Board Certification process can serve as an excellent tool to identify quality teaching and improve professional practice. It should be viewed through the lens of increasing human capital, not strictly from the perspective of short-term costs and benefits. Smart state and local policies will support candidates as they go through the process and then capitalize on the leadership and skills of

those who successfully complete it. Once this dynamic environment is created and sustained, we are confident that teaching quality will improve.

- Policymakers should craft policy around specific goals, such as offering incentives and time for NBCTs to spread their instructional expertise to a wide range of colleagues, rather than focusing on simply producing more National Board Certified Teachers.
- Policymakers, who have already made significant investments in National Board Certification in many jurisdictions, should advocate for the expansion of leadership opportunities for all NBCTs and emphasize programs that increase the population of NBCTs who are teachers of color.
- To increase the population of NBCTs working in high-needs schools, policymakers will need to support policies and practices that improve working conditions for teachers in these schools, so they will be confident of support from school and system leaders during the National Board process.
- Policies that promote high quality professional development directly aligned with National Board Standards can produce rapid improvements in the teaching quality of a school. These policies would create incentives for teachers and administrators to jointly restructure the school day to provide time for collaboration, roles for leadership, and opportunities for teachers to pursue National Board Certification.
- Policymakers should support “hybrid” teaching roles for NBCTs so they may teach students part of the day and also assist with professional development, curriculum revision, mentoring, and teacher education. Such policy approaches will maximize the value of teachers who have been identified as effective by allowing them to serve as agents for quality teaching for all students.
- We support the use of multiple sources of data to evaluate individual teachers and assess the effects of individual educators on student progress. We also call on policymakers to exercise caution in relying on value-added methodology to make these individual judgments. Few standardized tests are designed and scaled so individual teachers can be assessed fairly on how much they help students learn content in the same subject area over time.

## For the National Board for Professional Teaching Standards

The National Board has made great strides in the past two decades to professionalize teaching. This organization has established standards, created robust assessments, and expanded certification to reach many areas of teaching expertise. To meet the demands of 21st century teaching and learning, however, more must be done to harness the desire of thousands of NBCTs to lead efforts to transform the teaching profession.

- We recommend strategic partnering and communications that would make the mission, vision, and work of NBPTS transparent to researchers, policymakers, and the general public.
- We urge NBPTS to consider how education leaders can be made more cognizant of the potential power of the certification process to spread teaching expertise.
- We call for NBPTS to focus primarily on designing and implementing the best teacher assessments in the world. New technologies make it possible for teachers to document how they promote student learning in unprecedented ways.
- We believe, with the aid of more highly refined assessment tools, candidates for National Board Certification can show how they impact key aspects of student and school success (like reducing the dropout rate); how they prepare future workers for the 21st century global economy, and how they cultivate engaged citizens for our nation's 21st century democracy.
- NBPTS should more actively promote the voices and talents of NBCTs and more fully involve NBCTs in organizing and leading the NBPTS national conference.
- NBPTS should not only fully utilize the knowledge and skills of NBCTs in its own work but also promote and support other organizations that do so.
- NBPTS should advocate for NBCT leadership roles in many venues. More NBCTs should become principals, teacher educators, action researchers, and school-community ambassadors in the future.
- Finally, we urge NBPTS to accelerate its efforts to partner with higher education and incorporate the NBPTS Five Core Propositions into both teacher and administrator preparation programs. At the same time, we believe NBPTS must reach out to the growing number of non-profits that are recruiting a new generation of teachers, principals, and superintendents through alternative pathways.

**We are grateful for the opportunity** to step back and study the research about National Board Certification that many policymakers, think-tank analysts, union leaders, and administrators are also discussing. To our knowledge, this is the first formal opportunity for NBCTs to review and assess the empirical evidence of the impact of the National Board Certification process on both student and teacher learning. We have increased our own understanding of the complexities of quality teaching during these months of reflection, much as we did during our individual journeys through the rigorous National Board assessment process itself.

We believe our analysis will be helpful to everyone with a sincere desire to advance the teaching profession and ensure that every student is taught, supported and inspired by highly accomplished teachers. That vision energizes our own daily work in America's public schools. It gives us hope that our profession will continue its upward spiral and ultimately earn the respect and recognition it deserves.



# Introduction

## National Board Certification in the 21st Century: Looking for Teacher Quality in All the Right Places

In the ongoing discourse around “21st century learning” for today’s students, there are few points of absolute agreement or alignment. Does 21st century learning mean an intense focus on math, science, and technology use, with clear, quantifiable learning goals? Does it mean a demonstrable new appreciation for global citizenship, tolerance, cultures, and languages? Or should we be re-framing our educational ideas and programs toward innovation, creative thinking, design, and collaboration? The debate goes on.

Most everyone seems to agree on two points. First, what we are doing now, in American schools, is neither sufficient nor effective. The nation must restructure its educational goals and practices to meet the future needs of our citizenry and its most important resource, our children. Second, teachers will remain critical and central to achieving these goals. **Teachers still make the difference.**

In surveying and studying the existing research on National Board Certification, the *TeacherSolutions* team spent long hours discussing our own collective vision for exciting and productive changes in schooling. Together, we thought long and hard about what accomplished teaching should look like in the immediate and distant future. We were repeatedly struck by the gap between the emerging vision of good teaching for 21st century needs — needs now being identified by many prominent and diverse leadership groups — and the outdated tools and language currently used to appraise and quantify teacher effectiveness. Indeed, this dichotomy was apparent in much of the National Board research we perused. It seemed to us that we are looking for good teaching in the wrong places, using all the wrong measures.

Before we can assess (and replicate) effective and engaging teaching, we need a rich and well-developed portrait of what it looks like — from everyday classroom practice to its end product, student learning. We cannot be satisfied with the limited, inadequate information yielded by test results. Learning is, and always has been, a uniquely human activity — messy, complex, and non-standard. It is a complicated challenge to measure teaching and its impact on students, but difficult and important work deserves equally complex and thoughtful assessment.

We urgently need rich descriptors and evaluations of teaching and learning that match the knowledge and skills needed by citizens in this new millennium. We want to begin this report by sharing our ideas about 21st century teaching, which blend elements from many conversations and exemplars that have surfaced in this discussion among successful teachers from across the nation.

We believe National Board Certified Teachers are well positioned to model and lead their colleagues toward more forward-thinking practice. We believe this because we have personally measured our own practice against the NBPTS Standards and have found enduring value in the skills and ideas we developed through the process. We know that National Board Certification is built upon the “right stuff” — a rigorous but flexible foundation and template that can help America put together the teaching force we need to adapt to a changing world.

*Imagine a school where all of the teachers have clearly and consistently demonstrated the following:*

- In-depth knowledge of individual student characteristics and capacities, as a precursor to setting learning goals and planning lessons (as opposed to teaching all students at a grade level or in a course the same things as preparation for a test).
- Ability to create a risk-free, interactive, student-centered learning environment which nurtures creativity (rather than an emphasis on high-stakes evaluations which motivate students through fear or competition, causing some to drop out or give up).
- Strong, on-demand mastery of content knowledge, including subjects where American teachers are traditionally less well-prepared — math and science (40% of the National Board Certification score is the test sampling the teacher’s subject discipline mastery).
- Facility in taking that in-depth content knowledge and turning it into effective lessons and learning activities (because even “smart” teachers do not necessarily know how to transmit or apply core knowledge).
- Effectiveness in using multiple paths to learning (not just one prescribed or teacher-preferred way).
- Skill in creating diverse and valid forms of assessment and experience in using this data to diagnose student learning difficulties and prescribe strategies to address them. (Standardized assessments must be easy and cheap to administer and so are ill-equipped to capture essential 21st century learning elements — application, evaluation and synthesis of knowledge, literacy in a digital world, collaboration, etc.).
- Creative and adaptive use of instructional materials and current, authentic intellectual resources for learning (rather than dependency on managed or scripted instructional programs).

- Demonstrated capacity to recognize and honor all forms of human diversity and culture, and expertise in culturally responsive teaching practice.
- Imaginative and fluent use of technology to effectively advance learning.
- Effective collaboration with colleagues, which models shared professional practice for students as a critical workplace skill.
- Productive relationships with parents, leading to the core competency of mutual trust, and facility in using the community as an embedded instructional resource.
- Systematic, critical examination of their own teaching, using student work products and feedback to continuously improve daily lessons.
- A lively personal commitment to teaching well.

National Board Certification definitively supports, through its standards and measures, all of these markers of 21st century teaching.

The *TeacherSolutions* team has a vision of teachers who are fully responsible for the students they teach, who accept and relish the challenges of teaching in a changing world. National Board Standards and National Board Certification bring us closer to a workable model of 21st century teaching and learning. What we need now are fresh ideas about how we can further delineate, cultivate, illuminate, and — most importantly — evaluate this kind of teaching.



# National Board Certification and Student Learning

## PART I

Questions about the value of National Board Certification begin with student learning. We firmly believe there is no “quality teaching” without corresponding and significant student learning. The most critical indicator of accomplished teaching must always be *convincing evidence* of deeper student knowledge, improved skills, and greater understanding.

Underlying the National Board Certification process is an assumption that teaching is a complex act and that teachers who consistently produce well-educated students exhibit certain characteristics. In the NBPTS Five Core Propositions and related standards, NBPTS describes the “rich amalgam” of knowledge, skills, dispositions, and beliefs associated with effective teaching. Teachers who are willing and able to demonstrate these characteristics through a rigorous assessment process can earn National Board Certification.

Nearly all the less-than-favorable research findings about the efficacy of National Board Certified Teachers come from studies that use large quantitative data sets. Researchers compare the standardized test scores of NBCTs’ students with scores from students whose teachers are not NBCTs and draw far-reaching conclusions about their results. **The vast amount of standardized testing undertaken every year in our public schools provides a large and convenient source of data for these researchers. But “large and convenient” isn’t the same thing as “sufficient and appropriate.”**

If the National Board Certification process was aimed at identifying teachers who excel at raising student scores on standardized tests, this seductive data set might be just the resource needed to determine its effectiveness. But this is not what the National Board process does. Instead, it looks for teachers who can demonstrate the knowledge, skills, dispositions, and beliefs necessary to help any student reach his

or her maximum potential *across the whole spectrum of learning* — from academic content knowledge, to creative thinking and problem solving, to the habits of mind associated with good citizenship and a productive life.

The National Board Certification process provides an intensive evaluation of a teacher’s skill in meeting student learning needs. It is at odds with the approach we find in much of the research to date, which relies on an arms-length appraisal of aggregated student achievement data to judge the effectiveness of NBCTs.

Think of it this way:

- National Board Certification assesses a teacher’s ability to diagnose students’ strengths and difficulties, prescribe appropriate lessons and strategies, and analyze the results of their own teaching using actual student work products.
- Standardized tests are designed to measure students’ ready retrieval of knowledge and skills. They are not designed or intended to accurately attribute individual student learning to a particular lesson or pedagogical strategy — or even to a specific teacher among the many instructors students encounter. And this is true even when state-of-the-art, value-added methodologies are applied to the testing data to control for an array of outside influences.

Don’t misunderstand us. We believe standardized tests yield necessary and useful data. We know that exemplary teachers must be proficient in using many sources of information, including student achievement test results, to inform and alter their own classroom practice. We also understand and appreciate the advantages of using standardized test data to build growth models that help us learn more about our students’ collective learning gains over time.

# Making Judgments about Students and Teachers

By Patrick Ledesma, NBCT  
Fairfax County (VA) Public Schools

What do we mean when we say *the learning experiences accomplished teachers provide for individual students and classes cannot be adequately judged by the analysis of large-scale, policy-driven standardized test data sets*? Here is a story from my own classroom that I believe helps illustrate the point.

Brian was an 8th grade special education student who had failed his previous standardized tests in 3rd and 5th grade. With an IQ in the mid 70's, Brian performed about four years below grade level in reading, writing, and math. I began the year by collecting available data on Brian and my other students: contacting parents, reviewing the Individual Education Plans (IEPs), talking to previous teachers, looking at the eligibility and testing data, and even going back to standardized test data from three years earlier.

Each data source helped me understand Brian's needs, but the most insightful data came from my own informal grade level assessments which told me about Brian's current progress and ability level. Observing how each student solves problems provides me with valuable data on how that student approaches a task, applies learning strategies, and exhibits relative strengths and weaknesses. Most importantly, my observations reveal individual learning styles and how learning deficits impact each student's ability to learn and remember content.

The data showed Brian functioning on a fourth grade level in mathematics. He was inconsistent with basic operations; his ability to solve word problems was limited by reading deficits, and he often had inadequate background knowledge and basic skills to learn higher-level concepts. The data also showed that he benefited from daily review and repetition of previously learned concepts and skills, concrete

and real world explanation of abstract concepts, a variety of manipulatives and hands-on learning experiences, and a task analysis approach to all learning objectives.

Brian and other students ate lunch in my class two or three times a week while we worked on remediation and review, and they stayed after school when transportation was provided. Although they made progress, their learning deficits made that progress inconsistent. What was learned one day (and demonstrated on an assessment) could be forgotten the next day. They were a challenge to teach. For every concept reviewed, I needed a variety of approaches and materials because if they didn't learn it one way, I needed to present it another way.

Brian and his friends took our state's grade-level standardized test for math. While their grades were sufficient to "graduate" from middle school, it was no surprise to me when Brian and the others did not pass their grade-level standardized tests in all subjects.

As an NBCT, can I claim to be an "accomplished teacher" when some of my special education students failed the grade level standardized test? The question is complicated. Two years earlier, Brian was considered for placement in a functional life skills program as "mentally retarded." I argued against such placement. Had he been placed in such a program, he would have been exempt from taking the grade level standardized test and eligible for an alternative portfolio assessment, which is much easier to pass. Placement in such a program puts students on a non-grade level academic track. This is suitable for some students but would have had long-term academic, social, and emotional implications for a student like Brian, who is in a "gray area." Serving Brian's best interests had implications for the pass rate in my classroom and my school.

I teach in a school down the street from Thomas Jefferson High School for Science and Technology, a highly selective magnet school, considered one of the best high schools in the nation. At the time, Thomas Jefferson had 16 NBCTs on staff. The students we teach represent completely different ends of the spectrum, but they also represent the limitations and challenges of using data from standardized tests to make decisions on teacher and school quality.

My students began the school year so far below grade level that passing the grade level assessment was unlikely. As for my NBCT colleagues at the magnet school, their students are so far above the county and national averages that their standardized test data yields little information about their specific instructional needs or the quality of teaching they receive.

In both our situations, analyzing the meaning of standardized data is the beginning, not the conclusive judgmental summation, of understanding the academic progress of a student. We both have the same challenge: we must use a variety of data sources to perceive where the students are functioning and then create meaningful instructional experiences to move them forward in a way appropriate for each student.

Standardized test data simply cannot tell us all we need to know about how students are learning — and it will not tell policymakers and the public all they need to know about how well teachers are teaching.

As accomplished teachers, however, we also know the learning experiences we provide for individual students and classes cannot be adequately judged by the analysis of large-scale, policy-driven standardized test data sets. A teacher must carefully reflect upon every one of her students — and teach each one, as well as she is able. We must be committed to each student, whatever challenges they bring to the table. There are many things standardized tests do not measure: student motivation, intellectual readiness, persistence, creativity, or the ability to apply knowledge and work productively with others. Yet these are important qualities engendered and nurtured by good teachers, and they have everything to do with student learning.

**We cannot claim to be excellent or even capable teachers if we gauge our success with each student only by the median numerical reports from standardized tests.**

NBCTs who teach special education students told us that the National Board portfolio process provided a unique and welcome measurement for their field. It expected them to demonstrate a teacher’s knowledge of student needs and disabilities and the skills necessary to design assessment and instruction accordingly. This kind of analysis of teacher competence is not part of standardized tests.

Many NBCTs pursue National Board Certification out of a strong desire to have their teaching assessed in a deep and meaningful way. Like us, they are not satisfied by the one-dimensional ratings found in the score reports of distant testing companies, or by the spot-check evaluations of busy administrators. They want to be held accountable to the highest standards of accomplishment — standards that encompass all the complex actions that define an effective teaching professional. Marsha Ratzel, a Kansas NBCT and our colleague in the Teacher Leaders Network, described this urge for authentic accountability eloquently in an online discussion with our team:

*I reached a place in my career where I wondered if I was really any good at teaching, or if I just had the whole world fooled. Despite my uncertainty, I was beginning to sense a dynamic flow to my teaching — how it should be targeted to standards and curriculum goals, how it was shaped by my knowledge of my*

*kids’ individual needs, how it must include frequent assessments to make sure it’s working.*

*I was becoming aware that good teaching isn’t a mechanical operation. It’s a performance zone where knowledge, skill, and understandings are all in play. The National Board process verified that I was in that zone — that the vital current I detected in my work was, in fact, “good teaching.” The process of becoming certified produced great things for my students by forcing me to become proactive, to trust myself, and to implement new ideas in my classroom with the confidence that I wasn’t just fooling around.*

These are the teachers our students need and want, and these are the teachers that our assessment and accountability systems should be seeking out.

## Our Reflections on the NBCT Research Using Student Achievement Data

*In comparing NBCTs to non-NBCTs in terms of value added to student achievement — as measured by test score gains, with all the caveats that necessarily come into play in thinking about test scores as the measure of student achievement — the distribution of NBCTs is slightly higher and statistically significant, but there is a lot of overlap in distributions.*

— Dan Goldhaber, labor economist,  
University of Washington

*Educational research is not yet, nor may it ever be, in the position to claim that certain teacher behaviors will improve student test scores with certainty.*

— Ken Frank, psychometrician,  
Michigan State University

Some researchers have claimed that NBCTs do not necessarily raise the standardized test scores of their students. Although only a few scholars have reached this conclusion, some critics of the National Board have claimed that the National Board process is *not* about student learning.

*The notion that National Board Certification does not value or measure student learning is false.* The process demands that candidates analyze their students’ work products for strengths and weaknesses, evaluate student results

# NBCTs Ask the Important “Why” Questions

By Kimberly Oliver, NBCT  
2006 National Teacher of the Year  
Montgomery County (MD) Public Schools

In August 2000, I began my first year of teaching. I was assigned a kindergarten class and Daryl was one of my students that year. Like many of the other students in my class, Daryl entered kindergarten with very limited academic skills. He did not know the letters of the alphabet and had very little understanding of concepts about print. He was a long way from being able to read a simple text independently — which I was told was the district expectation by the end of the school year.

Although I was optimistic, I realized that I had a long and challenging year ahead of me. However, I was excited in November when I assessed Daryl and discovered he had learned all the letters of the alphabet. In January, I was ecstatic when Daryl read the required simple text with amazing proficiency. I shared the good news with my mentor teacher but secretly wondered, “How in the world did *that* happen?”

Eight years later, I have another Daryl in my class — except this time his name is Antonio. Antonio lacked those same readiness skills when he entered my class in August. Like Daryl, he has made tremendous progress and is exceeding the rigorous benchmark standards that have been set by my school district. But now, I no longer have to wonder.... I know *exactly* how it happened. I know that it is not by luck, nor is it by coincidence. Antonio has learned to read because I taught him.

The National Board Certification process helped me examine my practice as a teacher and understand the magnitude of the impact my decisions have on my students’ learning. I know that Antonio has become a reader because I assessed him in the beginning of the school year and organized his learning environment accordingly. I know that Antonio has become a reader because I have continuously monitored his progress and then planned and implemented instruction. I know that Antonio has become a reader because I have worked closely with his family, so they can support and complement his learning at home.

When I find that Antonio is not making progress, I stop and ask myself the difficult question “why,” and then work toward a resolution. This is why Antonio and the other students in my class have learned not only to read but also learned the many other skills and concepts that are essential for kindergarteners to progress into first grade and beyond.

Although I believe I used many of the same strategies with Daryl several years ago, my decisions were not deliberate or intentional as they are today. I like to think I was responsible for Daryl’s learning that year, but the truth is that I really didn’t know. It is much better knowing.

in the context of the teacher’s curricular goals and students’ identified needs, and use that scrutiny of personal effectiveness to change habits of practice. It is *all about* student learning.

Despite the limitations of current standardized tests, most studies show that students of NBCTs produce better student results than their peers taught by non-NBCTs. However, it does not surprise us that large-scale data analysis shows only slight positive differences in the student achievement statistics of NBCTs, nor that the analysis finds overlap between groups of NBCTs and non-NBCTs. Carolann Wade, our North Carolina colleague, notes that teachers’ classroom assignments and assessments are not often aligned with the testing data available to researchers, making it difficult to ascertain the true impact of NBCTs on student achievement using unaligned standardized achievement measures.

Using a large, well-ordered set of student achievement data and value-added modeling, a researcher might deliver a high-quality study that tells us only that NBCTs — in the plural, at one developmental level and subject, and in one state or region — yield somewhat better results on standardized tests. Another study might tell us that NBCTs in a different comparison group yielded no better test results. Can either of these defensible but narrow findings become the basis for a broad national policy recommendation? How much can they contribute to determining the absolute relationship between achievement test data and effective teaching? What if the value added by NBCTs cannot be measured accurately by the current tests?

A study by Harris and Sass illustrates the point. They found that students of NBCTs outperformed those of non-NBCTs on Florida’s Comprehensive Assessment Test (FCAT), which is closely aligned to state curriculum standards. Yet these same students lagged behind in some measures on the off-the-shelf, nationally-normed Stanford 9 achievement test. In other words, when the assessment matched the standards teachers were expected to teach, NBCTs excelled (Harris & Sass).

On the issue of “overlap” between the performance of NBCTs and non-NBCTs, remember that National Board Certification is a voluntary assessment.

There is little doubt that a subset of teachers in any given district or state could readily achieve National Board Certification but choose not to do so. The size of that group will vary greatly, depending on the characteristics of the teacher pool in a given location, and the extent to which the National Board Certification process is encouraged and supported.

### Are NBCTs better than non-NBCTs?

The question of whether NBCTs are “better” than other teachers is often raised. We agree with our colleague Kim Oliver when she says National Board Certification “is all about teachers improving their own process, not necessarily comparing one group of teachers to another.” We think a more useful query might be: *Are there situations in which NBCTs show clear evidence of a higher standard of teacher effectiveness?* In thinking about this, it’s instructive to consider the research based on student achievement data that most favorably compares NBCTs to other teachers. For example, consider the studies that show NBCTs are more effective with students in high-needs schools (e.g., Cavaluzzo). There is plenty of evidence that quality teaching is harder to come by in challenging schools and that success with students in these schools requires a high degree of competence. It makes sense to us that the high standard of teaching exhibited by NBCTs would stand out in such settings.

As we reflected on this example, we wondered how much the composition of the comparison pool matters when researchers are attempting to ascertain teacher effectiveness. A study in another state with about 80 NBCTs (Vandervoort) uncovered significantly enhanced standardized test results for the students of some teachers in that small pool — well beyond the results uncovered in most other research to date. This finding isn’t surprising if we consider that teachers who serve as “pioneers” in seeking national certification are likely a select cadre, even in the universe of NBCTs.

We also wondered how much small differences in individual teacher performance might influence research findings. Dan Goldhaber, author of multiple studies on NBCT effectiveness, offered some perspective on measuring fine distinctions in teacher performance when he joined us for an online discussion. Speaking about the efficacy of value-added methodology (VAM) models, Goldhaber said: “No

matter how good the models are, if they’re going to be used to make fine-line judgments [about teacher effectiveness], mistakes are going to be made. A teacher at the 81st percentile is not going to be different from a teacher at the 79th percentile.”

### Demonstrated accomplishment, not superstar status

We were intrigued by one study which compared the certification scores of NBCTs with their student achievement data. A specific teacher pursuing National Board Certification must achieve a composite score of 275 (out of a possible 425) to attain National Board Certified status. Most teachers certify with scores between 275 and 300. Researcher Thomas Kane (et al) found that teachers who scored above 300 produced significantly larger student achievement gains (as measured by standardized tests). Harvard researcher Jill Harrison Berg, who is an NBCT and another guest in our virtual study sessions, told us:

*The most striking aspect of Kane’s research to me was a graph looking at NBCT scores and student achievement scores that showed nearly perfect correlations. He didn’t seem to make much of this finding in his discussion of the research, but to me it offered compelling data that National Board Certification is an effective measure of identifying teacher quality.*

In the recommendations section of his study, Kane proposed that NBPTS raise its baseline achievement score, pointing out that teachers whose scores hovered at 275, or just above that mark, collectively produced student achievement scores that also hovered in the mid-range. In our view, Kane’s policy proposal runs contrary to the original intent and purpose of creating a nationwide board certification protocol for teachers. The National Board for Professional Teaching Standards and its scoring process were not created to identify or reward a highly elite national teaching cadre. The National Board Certification process is built upon established benchmarks for quality teaching, and it fairly evaluates teachers who seek to meet those benchmarks. Some of those teachers will produce the highest levels of student achievement data; others, working in different contexts with different students, will produce more moderate outcomes. But all meet

carefully researched and constructed expectations for quality teaching practice.

**We believe that challenging many teachers to meet a quality standard for professional practice benefits American schools and students a great deal more than selecting and showcasing a small number of ultra-high-performing practitioners.**

### Should National Board candidates be limited to one try?

The Kane study also noted that teachers who achieve National Board Certification on their first attempt produce higher overall student achievement gains than those who had to re-do parts of the assessment in order to certify. Candidates for National Board Certification have two opportunities to repeat individual content-based assessment exercises, or re-do portfolio segments, if their initial score does not meet the 275 baseline. Using statewide standardized test scores in California, Kane showed that elementary teachers who were successful in achieving National Board Certification on their first try more reliably produced higher student test results. Based on this finding, Kane recommended that “NBPTS should not allow teachers to retake the test multiple times in order to pass — or at least make all scores available to employers (not simply the final score).”

Kane’s research does not speak to the value of growth teachers and administrators report about the certification process through two or three rounds. The National Board describes the assessment as a “three-year process” of professional learning, and in survey and anecdotal data, multi-year candidates describe the ongoing interaction with teaching standards as very productive, an intrinsically valuable experience that requires them to reflect more deeply on the fundamentals of effective teaching.

We do not agree that candidates should be limited to a single, all-or-nothing attempt at National Board Certification. Other professions — e.g., law, medicine, and accounting — permit multiple tries at certification, relying on applicants to hone their own skills and knowledge through repetition and self-assessment. Kane, and many other researchers, position National Board Certification as an award —

an extrinsic, exclusive mark of exceptional efficiency or excellence in teaching. (In medicine and accounting, on the other hand, there is a professional expectation that many practitioners will achieve advanced certification.) While it may be true that many teachers perceive National Board Certification in this way, we repeat our contention that **rewarding a small set of select teachers does not promote a high standard of effective teaching as a goal for most educators — or encourage the examination of better practice in classrooms across the nation.**

Currently, about 2% of the nation’s teaching force is National Board Certified, ranging from nearly 14% in North Carolina, which systematically encourages certification, to states like New Jersey, where less than 0.1% of teachers are NBCTs. If Kane’s own data show that the process does reliably signal teacher quality as measured by standardized tests, why would NBPTS or policymakers want to limit the National Board Certified designation to a tiny, exclusive cluster of teachers? We believe that setting demanding benchmarks for good teaching, and then providing incentives for many teachers to study and pursue those markers of quality, is good public policy and may also encourage more good teachers to remain in the classroom, confident in the contributions they are making. **We can improve student learning more readily through describing, assessing, and spreading quality teaching than by isolating quality teachers.**

### Is there an NBCT “generation gap?”

The NBPTS standards and assessment procedures have gone through cycles of updating and improvement since the first field tests were administered in the early 1990s. Earlier incarnations of the assessment process were streamlined in 2000-01, putting a stronger focus on demonstrated content knowledge and reducing the number of portfolio entries. With this change, two distinct groups of certified teachers were formed: those who certified prior to the changes (known as “first-generation” NBCTs), and those who certified after the process was renovated (known as “next-generation” NBCTs). Because NBPTS was still introducing new subject/grade certificates in 2000-01, the “next-generation” process has been the only National Board assessment protocol available to teachers in many subjects and grade levels.

There are, however, still a significant number of teachers who certified using the older process, which required six rather than four portfolio entries (some evaluated competencies were collapsed into the smaller number of entries) and fewer — but longer — tests. Because the first-generation assessment was perceived as involving more time and taking more rigorous measurements of some competencies, there was controversy when the National Board announced the more efficient and updated assessment, even though NBPTS provided considerable evidence of psychometric validity and reliability for the next-generation version.

It was interesting, then, to find that Kane, in the same California study discussed above, determined that first-generation NBCTs produced higher student learning gains than next-generation NBCTs. He concluded that the first-generation assessment is a superior measurement instrument in identifying teacher effectiveness. On our 10-member *TeacherSolutions* team, there are first- and next-generation NBCTs. Some of our first-generation teachers felt validated by Kane's assertion that the first-generation NBCTs were more likely to be effective teachers — they remember features of the earlier assessment that might have been given short shrift in the next-generation model. However, other team members offered alternative explanations for Kane's finding that first-generation NBCTs produced higher student achievement test results.

The most likely explanation, we believe, is that the first-generation teachers in Kane's study had been using the standards and tools of National Board Certification (i.e., the architecture of accomplished teaching, multiple paths to learning and diverse assessment strategies, collaboration with colleagues, the habit of reflective practice) longer than next-generation NBCTs, and they were more fluent in their use. As more experienced teachers, carrying a national designation of excellence, these NBCTs may also have more discretionary power in selecting schools where their effective teaching is valued and utilized, producing stronger tested gains. Our team also returned to the idea that very early achievers of National Board Certification tended to be assertive and motivated teachers who were more willing to take risks. Gail Ritchie, a first-generation NBCT from Virginia, told us:

*'Back in the day,' when I certified, there were no financial incentives. I can truthfully say that I pursued certification because I wanted to examine my practice and measure myself against rigorous standards. Now that there are financial incentives attached, it muddies the waters regarding intentions. Some people freely admit that they're doing it for the money and then are taken by surprise at how rigorous the process is.*

We are not convinced that Kane's research supports his contention that the next-generation National Board instrument is less sensitive than the older model in identifying quality teaching. We believe it is more likely that a large majority of early NBCTs have continued to improve their practice and are producing better student achievement test results as one by-product of that continuous growth.

## Does the certification process produce a student performance dip?

Some NBCT researchers have reported a slight dip in student achievement test scores during the year of certification, or in the year after certification. Some of this data is questionable. For example, it appears that the Harris study looked at two different groups of NBCTs — one group before the certification process and a different group *after* the process — and then asserted that students of NBCTs earn lower scores the year after they certify.

Even so, based on our own experience as National Board candidates and candidate support providers, we are aware that the certification process is universally stressful to candidates — whether they complete it in a single year or spread it over three years. We can also report that the process caused a decided disequilibrium in our own ideas about good teaching.

The level of anxiety and uncertainty is elevated for teachers who uncover habits of practice that are not yielding good results. And their search for more effective practices may leave gaping holes in their regular routines or in lessons they once viewed as sound. For those teachers (and we count ourselves among them), the certification process comes as an eye-opening, even shocking experience — a time during which we may lose some confidence

in our habitual teaching practices as we begin to experience a transformation.

We also note that the process is enormously time-consuming, piled on an already intensive teaching schedule full of deadlines and requirements. Many candidates report that the certification year is a blur of tension. Louisa Jane Fleming, an NBCT in South Carolina, recalled:

*I did have sort of a mini-breakdown, and part of it was that I felt the time I was giving to National Board was 'hurting' my students. After I'd submitted my portfolio, I realized I was wrong. In hindsight, I think the stress was largely the result of my questioning myself about my practices and changing what didn't measure up to my own expectations. It is hard and stressful to change. By the end of the year, I'd tightened my focus and cut out fluff. I felt then and do now that any part of being a 'worse teacher' during this change process was offset by becoming a better teacher for the rest of my career.*

It seems reasonable to us that the pressures and uncertainties growing out of this effort to change could produce a temporary downturn in student achievement data. If so, is this a predictable occurrence on the road to positive change — what education researcher Michael Fullan has described as the “implementation dip.” Fullan reports that drops in test-measured effectiveness often happen when new programs or teaching strategies are instituted. As National Board candidates seek to meet higher standards of practice, are they teaching in new and unfamiliar ways that result in a short-term dip in test results? In repeated surveys, NBCTs overwhelmingly say their teaching practice changed for the better in significant ways as a result of going through the certification process.

And what about the reports of a decline in standardized test data in the year after certification? It may be that some NBCTs are still solidifying their marked changes in practice. Or perhaps we may begin to teach in new ways that are not assessed by multiple choice tests. As a result, we are less likely to be differentiated from our colleagues on standardized measures. Researchers have also suggested that recently certified NBCTs may be adjusting to new responsibilities and aspirations, leading them to a diffused focus on classroom practice. A more disturbing implication might be that once some

NBCTs have achieved financial and status benefits, they feel free to pay less attention to their practice.

As a group, we had varying new career opportunities after certifying. Some of us were invited into leadership roles outside the classroom, some were given more demanding teaching assignments, others experienced no external changes at all. One of our members (in a state where the research indicated a dip in student achievement) noted that National Board Certified Teachers in her district were strongly encouraged to move to high-needs schools after certifying, which would certainly impact year-to-year teacher data. Also, several of us were tapped by principals to teach more difficult students — a challenge we accepted. In the presence of all these variables, it may be impossible to tease out factors that caused some National Board Certified Teachers to produce a small decline in test scores following their certification.

The team is in agreement, however, that we all benefited from internal changes — from new understandings about our own practice. We gained confidence in our ability to change and improve our instruction in ways that might not be reflected in standardized test scores but clearly increased student learning. We increased our focus on helping students evaluate, synthesize, and apply their learning in real-world contexts. Commenting on the certification experience, NBCT Claudia Swisher of Oklahoma told us:

*The learning curve is steep, and our old skills and tricks may not be sufficient. We're expected to reflect, a practice that takes more time than we've ever allowed ourselves to take. We work intensely for nearly the entire school year, experiencing discomfort, self-doubt — we are confused and frustrated. But this work will enrich our practice.*

We can only speculate about the reported findings of lower student achievement data during and after teachers' pursuit of certification. But we are certain there is not a single, definitive cause. More longitudinal research connecting NBCTs to a broader range of student performance indicators than standardized tests may help clarify the issue. One thing is certain to us: *The National Board process is a powerful professional development experience.*

# NBCTs and High-Needs Schools

We are troubled by the data on the scarcity of National Board candidates and National Board Certified Teachers (NBCTs) in high-needs schools. Researcher Dan Goldhaber, in *Education Evaluation and Policy Analysis*, reported his finding that:

*Roughly 10% of NBCTs [teach] in lowest quartile mathematics classrooms and 6% in comparable reading classrooms, and almost 50% are in highest quartile classrooms. It also makes a real difference if you're in a more advantaged school as to the probability of applying (2% vs. 0.29%) and certifying (75% vs. 18%).*

An NBCT who teaches in an urban school describes conditions that make it clear why other NBCTs might be reluctant to accept positions in such settings — and why teachers already in these schools are much less likely to seek certification:

*High-needs schools tend to have much more rigid requirements for curriculum and instruction. There is considerably less trust among administrators in teachers' abilities to positively impact student learning. As a result, there is less opportunity for teachers to demonstrate that they can tailor instruction to student needs — they are not even allowed to do so. It is typical to see scripted curricula and/or rigid, closely monitored pacing guides. All these reduce the amount of time and effort that can be committed to National Board Certification.*

Such schools may also have different teaching and learning conditions than other schools: limited resources (human, technological, financial and material), poor building conditions, leadership challenges, and student readiness issues. Even the label of “high-needs” serves to discourage teachers from pursuing certification. Teachers and students internalize such labels.

We appreciate policymakers who understand that high-needs schools are tougher assignments, and we agree with their demand for high-quality teaching for students who attend these schools. All good teaching, however, depends on dedication to specific students. Forcing successful teachers to transfer to disadvantaged schools is a “silver bullet” strategy that is unlikely to produce gains.

We also know from our own experience and extensive dialogue with expert teachers in the Teacher Leaders Network that financial incentives alone are not sufficient to engage NBCTs in efforts to improve disadvantaged or hard-to-staff schools. Our team member Kim Oliver, an NBCT in Maryland, observes that “Teaching in a high-needs school is a choice and a passion for those effective teachers who choose to do so. Take out the choice and the passion and most likely you take away the results.” Oliver herself teaches in a high-poverty setting but reminds us that “there are high-needs students in every classroom and every school.”

Milken winner Jane Fung, an NBCT teaching in Los Angeles, had these thoughts about policies that seek to improve high-needs schools by an infusion of NBCTs from the outside:

*I know that I am a capable teacher, but am I necessarily more qualified than teachers already in the school who are not NBCTs? It will take time for me to get to know the school community and the students I teach. We search for quick fixes to our high-needs schools (scripted programs, more assessments, teacher transfers), without looking at the root of the problem. Moving in a few NBCTs will not fix a school and may even bring animosity and lower the morale for teachers who are already there.*

A better solution, we believe, is to support initiatives that can validate or improve the teaching of those already committed to work in high-needs schools and build a cadre of effective teachers who can lead the change process. Collective teacher leadership can be powerful, and it can make a positive difference in schools with high concentrations of our most challenged students.

To address the shortages of quality teachers in high-needs schools, we support a “grow your own” policy for instituting the tools and knowledge associated with National Board Certification and increasing the presence of NBCTs. We would expect any effort to improve teaching quality in these schools to begin by honoring the understandings and experiences of teachers who are already there — NBCTs or not. They can provide

invaluable guidance and leadership in the difficult work of reform.

We have considered whether NBPTS might create a separate certificate for teachers in high-needs schools — one that would focus on the particular understandings of students, parents, and community characteristics required for successful teaching there. However, our TLN colleague Carole Moyer, an NBCT with long experience as a teacher and central office leader in urban Ohio schools, argued against such a certificate. Moyer, a recent winner of the NEA’s prestigious Horace Mann Award, pointed out that the need for change in these schools is systemic. She made the case, and we agree, that it would be inappropriate to suggest through special certification that all the responsibility for improving high-needs schools can rest on the shoulders of teachers. Or that there are different standards for effective practice for certain teachers.

We looked at research demonstrating that different teaching contexts strongly affect both the likelihood of certification success and National Board Certification candidates’ access to a strong, well-crafted program of support. Schools where there is chronic conflict and dysfunction could clearly benefit from a group of resident instructional experts. But they are often the most difficult places to establish interest in National Board Certification. Add the pressure of a high-stakes professional assessment that takes 200–400 hours, with no guarantee of success, and National Board Certification is not positioned as an optimal professional learning initiative in these schools.

For any professional growth initiative to take root, there must be a hospitable environment, both intellectually and in day-to-day operations. A “grow your own” NBCT strategy makes sense, as decision makers consider policies that will strengthen teaching quality in high-needs schools. But they must also take parallel actions to address environmental conditions — from leadership to basic resources — that severely retard the development of a culture of continuous professional learning.

## Do National Board Certified Teachers teach differently?

*For me, National Board Certification was about getting meaningful and qualified evaluation of my work (at that point in time) from my peers. I had been teaching for ten years, and I wanted to see where I was professionally and what I needed to change. The sad part was I could not get that information from the normal evaluation channels in my school and district.*

— Renee Moore, NBCT, 2001 Mississippi Teacher of the Year

In social science research, conclusions and policy implications are often influenced by researchers' own perspectives and purposes. The disconnect between the objectives of policymakers and influencers — who most often fund research — and what is valued by parents is fundamental. Parents want teachers who pay attention to their child's individual needs, while legislators want concise indicators of a return on investment, which are most often defined as higher test scores.

During our discussions, we noted a parallel similarity between school and business models: while businesses want growth in sales data, they also depend on growth in customer satisfaction — and the two are interconnected. There are many commendable educational initiatives (for example, statewide laptop proposals or a rich arts curriculum) that may not be easily tied to improved standardized test outcomes but are popular with “customers” who sense that they contribute to a well-rounded and well-educated student.

If the key policy goal is raising student results on standardized achievement tests, rewarding teachers for becoming National Board Certified is likely to be modestly efficient. If our aim is capacity-building in schools, identifying and spreading instructional expertise, or re-organizing schools to capitalize on effective teaching, it makes more sense to attach incentives to earning National Board Certification — and then provide additional incentives for NBCTs to lead efforts to improve their schools and spread teaching expertise to their colleagues. And if our educational objective is increasing effective teaching across the board — even “leaving no child behind” — we

need a clearer picture of what effective teaching looks like and how it can be supported in all classrooms. We also need to ask what makes the teaching practice of NBCTs different from what many other teachers do.

The *TeacherSolutions* team strongly believes that research on the effectiveness of NBCTs as measured by standardized achievement data should continue, with the caveats we have described here in mind. We recommend, just as strongly, that researchers look at other performance-based indicators of student learning. There is an important distinction between *student achievement data* and *student learning* — the former serves as one of many elements of the latter. Good research can help surface this distinction and ultimately improve teaching practice and school performance.

There is incongruity in the fact that the first national performance standards for professional teaching practice — complex, nuanced descriptors of what teachers should know and be able to do — have most often been evaluated by the lowest common denominator of assessment: standardized tests. One notable exception is the complex research carried out by Lloyd Bond and his associates in the year 2000.

Eminent scholar Lee Shulman, former president of the Carnegie Foundation for the Advancement of Teaching, has written:

*Among the studies conducted with support of [NBPTS], the investigation by Lloyd Bond stands out for its imaginative use of multiple, alternative outcome measures, its careful distinction among sub-groups of board candidates, and its careful observations of how teachers taught.... This study, which found that the students of highly successful board candidates performed more ably, in general, than those of less successful and of unsuccessful candidates, remains a rare model of developing new, writing-intensive measures of student learning, and eschewing the traditional standardized tests. Ironically, it has been criticized and discounted by some board critics precisely because it opted to experiment with more promising alternative measures rather than use the standardized tests whose flaws are already understood.*

There are certain values about teaching embedded in National Board Standards and assessments, among them the belief that teachers have the responsibility to

clearly and convincingly identify and articulate what their students have learned. Bond and his associates scanned professional literature on effective teaching, then condensed teacher actions and attributes into a set of 13 “dimensions of teaching” — including skills such as fluent use of multiple learning strategies, situational cognition, problem-solving and improvisation, providing feedback to students, as well as demonstrated passion for teaching and learning.

This “dimensions of teaching” model, used in the first validation study done by NBPTS, resonates with us as practitioners — and the dimensions identified are aligned with descriptions of 21st Century learning needs. But we can understand why those outside the profession remain skeptical about an assessment so tied to authentic, classroom-embedded measures. Economist Michael Podgursky, in a 2001 article in *Education Next*, expressed just such skepticism:

*There is much less in this [study by Bond] than the press releases imply. In effect, the report really tells us only that teachers who were certified by the National Board were more likely to display the types of behaviors the National Board favors. Such a circular exercise does not necessarily prove that National Board-certified teachers do a better job of raising student achievement.*

Other researchers have used alternative observational and analytical tools to scrutinize and evaluate NBCTs’ daily practice and compare it to the classroom effectiveness of non-NBCTs. Researchers Wendy McColskey and Tracey Smith, in separate studies, employed two distinct evaluation models. McColskey used a tool developed by the Center for Research, Evaluation and Student Standards on Testing (CRESST), while Smith used the Structure of Observed Learning Outcomes (the SOLO Taxonomy). Smith’s evaluation of NBCTs showed that they were better able to produce deep understanding, not just surface learning. McColskey, on the other hand, concluded that “highly effective” non-NBCTs were better organized and showed stronger classroom management skills, measured by students’ time on task.

The conclusions in both studies were shaped by researcher preferences and beliefs, and by assumptions about good teaching embedded in the evaluation tool they chose to use. There is more than one way to be a good teacher — and

## My Copy Machine Epiphany

By Ellen Holmes, NBCT

State of Maine Department of Education

I can distinctly remember when I “got it” — the day I came to understand the architecture of accomplished teaching. I was standing in front of the photocopier getting ready to prepare a bunch of handouts to accompany my next integrated unit. I was flipping through one of my many commercially-produced, black-line master books, thinking, “Oh yes, that is the handout that no one ever understands, but it sure is cute and goes with the theme. And there is the activity with a reading selection that will be much too easy for this group, but I have always used it. And here is the writing prompt I have used for years, though it’s really inappropriate to ask third graders to write a persuasive essay....”

As I sorted the originals into the feeder, I had my teaching epiphany: *How did focusing on what I was going to cover for the next six weeks in any way match up to what I was learning about accomplished teaching as a National Board candidate?*

I stopped the copier and went to my classroom. I began to really think about the particular students that I had and the essential learning targets my district had identified for all third graders in my school. From my work as a candidate, I was coming to see that accomplished teaching is not only about covering content or choosing creative learning activities. It was about assessing where each of my students was, designing individual lessons for them, and then determining how closely the teaching decisions I made met particular needs for particular students. This meant that many of the purchased materials I had collected over the years were simply not going to cut it anymore. I spent the entire weekend creating, adjusting, and discarding activities, focusing with a renewed professional perspective on the learning requirements of each and every student.

Saying that I made the shift from covering content to focusing on student learning sounds simple, but it represented a complex and significant change. That moment at the copy machine resulted from the single most meaningful professional development in my career. I had already been through a master’s program, had attended numerous workshops and trainings, but none caused so drastic a shift in my professional practices and understandings as my incorporation of the architecture of accomplished teaching in my daily work with students. Laying my professional practice against a set of nationally developed benchmarks became a total reformation for me.

external evaluations of teaching practice are certain to be colored by value-driven tools and personal understandings of what quality teaching looks like.

We believe that triangulating data on teacher effectiveness is a promising strategy, using a variety of modes of analysis. Researchers, for example, might capitalize on recent findings that student evaluations of teachers are often more accurate than those of the principal. Whatever methods are selected, we encourage the exploration to continue. Clarifying the characteristics of teaching practice that lead to deeper learning for students should be a primary objective for all teaching quality research.

### Teaching is complex intellectual work

We believe learning outcomes are important — and the quality of those outcomes is influenced by how teachers obtain their results. Candidates for National Board Certification are required to submit analyses of actual student work and to submit video examples of the student learning process. They are not proscribed from submitting student achievement data if it contributes to an overall demonstration of learning — and many candidates do. The National Board Certification process demands that candidates tell clearly why their students learned or did not learn — something that test scores cannot surface. National Board Certification demands that candidates make the reasons for their teaching decisions transparent.

The general public and policymakers make many assumptions about teaching. They expect that teachers will maintain order, deliver content, administer tests, complete paperwork, and stay on task. These are necessary aspects of teaching but they are not sufficient. The National Board Standards identify other aspects of teaching that reveal it as complex intellectual work. As successful teachers, we know this to be true, and we find the National Board Standards both affirming and gratifying. As 2006 Oklahoma Teacher of the Year Robyn Hilger told us:

*The incredible meaning of National Board Certification is that finally someone gets it! I am an individual, and my students are individuals. Teaching is an art, where everyone's painting is different, but we all use similar tools. With National Board I was relieved that someone*

*recognized that I don't have to fit in one box to be a 'model teacher.' If my lesson plans are on notebook paper, if my students do not sit quietly in their desks, if I don't give my kids paper and pencil tests, I am okay, as long as I can show how my choices were made to have the greatest impact on student learning. National Board honored me as an individual and as a professional.*

We would not make the claim that National Board Certification is the ultimate, perfect assessment of teaching. *But we all agree that the NBPTS process has triggered an ongoing national conversation about good teaching and opened the door to richer dialogue about specific aspects and outcomes of proficient practice.*

We are also grateful to have *standards* for accomplished teaching, a necessary first step in becoming a true profession. We believe that a detailed, standards-based performance appraisal of teaching, using impartial evaluation protocols, can tell us much more about teacher effectiveness than any other method in use in our schools today.

### Is the investment in National Board Certification all about test scores?

What should we expect from America's investment in a national advanced certification initiative for teachers? Is it reasonable to demand that NBCTs — as a group — produce higher student achievement data than their non-NBCT colleagues?

Most of the large-scale National Board research to date is based on an *economic* cost-benefit assumption: there is a cost to produce an uptick in student achievement (i.e., test scores) and keeping that cost low is the most desirable objective. But we are not convinced that there are consistent and compelling connections between higher standardized test scores and exemplary teaching. Too much depends upon the nature of the test, the particular students that we teach, and the conditions under which we work. We take issue with analyses of how much it “costs” to yield improved test results. Are test results really the end product? Do they encompass everything about education that benefits our students and our society? In our view, test scores are an inadequate proxy for student learning — and genuine student learning, demonstrated in authentic and verifiable ways, must be our investment goal.

In that regard, we would point out that neither graduate school coursework nor a teacher’s length of service is consistently correlated to higher student achievement data. Yet, in virtually every public school salary schedule in America, teachers are paid more for graduate degrees and years on the job. We acknowledge the need to continue to build a stronger knowledge base about effective teaching. But we also believe that teachers who are willing to accept the professional risk of an external evaluation of their practice against high standards deserve recognition and extra compensation.

In some states, offering salary bonuses to NBCTs does not change total teacher compensation expenditures but re-orders financial priorities, rewarding those who are meeting high standards of practice and even changing common perceptions of what effective teaching is. For example, our *TeacherSolutions* colleague Carolann Wade points out that standards for evaluating teachers are changing in her state of North Carolina, aligning closely with the NBPTS framework for accomplished teaching. From this point forward, the National Board’s Five Core Propositions will help delineate what good teaching looks like to North Carolina administrators.

For reasons we have already enumerated, we are wary of policies that offer large bonuses to NBCTs with the explicit intention of using their expertise to raise test scores. NBCTs can and do play a significant role in improving student learning across the country, as well as helping to re-conceptualize the ways in which effective teaching can push students to ever higher levels of success. But we also know that most teachers pursue National Board Certification for reasons ranging from professional validation to personal challenge — not to get a salary boost predicated on achievement test data.

While we strongly support salary increases for National Board Certification, we are clear that those bonuses should be offered as recognition of teachers’ commitment to excellence, not their ability to raise scores. Some members of our *TeacherSolutions* team receive salary incentives for being National Board Certified and others do not. We all agree, however, that **the greatest benefit resulting from the creation of a national advanced certification for teachers is collective effectiveness.** The real payoff comes

when schools are organized to take advantage of this identified instructional expertise to systematically leverage student learning gains.

Michigan State University researcher Dorothea Anagnostopoulos, reporting on results from a study which quantified the instructional leadership contributed by all teachers, commented: “NBCTs provide help to approximately 0.6 more teachers [than non-NBCTs], so even if you have 2 or 3 NBCTs in a school, the effect can be compounded very quickly.” **We believe that by continuing to examine and publicize the impact of effective teaching practices on whole-school improvement, we can reach a point where exemplary teachers no longer see National Board Certification as an award or entitlement but as evidence they are ready to lead professional communities of practice.**

So we return to our original question: Are National Board Certified Teachers better than other teachers? Our *TeacherSolutions* colleague Anthony Cody of California says:

*We want our peers to think of us as leaders, but people want their leaders to be ‘of’ them, not above them. So I don’t think we are served well by trying to assert that we have proven ourselves to be better than other teachers. We can talk about certification as an accomplishment, about what we learned from the process, about what it means to reflect on and analyze our work. That is the substance of certification. That should be our message.*

The positive and negative effects of standardized tests are being widely debated in the United States — it is not our purpose to take up that debate here. We simply argue, without much fear of contradiction, that standardized achievement tests were never designed to provide a complete snapshot of the education of a child, nor to measure whether a teacher has the knowledge, skills, dispositions, and beliefs to educate that child well. We believe the National Board Standards and assessments stand on their own merits. Hundreds of studies have been conducted on the process, and the vast majority of them suggested that National Board Certification is a key investment in America’s teaching profession.



# National Board Certification and Teacher Learning

## PART II

The National Board for Professional Teaching Standards created professional teaching standards and assessments aligned to those standards, with the goal of promoting nationally certified teachers as agents of school reform. An implicit goal — and what has now grown into a common understanding about National Board Certification — is the professional development that teachers access as a result of the process.

Teacher development was certainly not the main objective of establishing national certification for a profession which had none, but it was not a completely unexpected outcome. Preparation for any professional evaluation may trigger productive scrutiny of knowledge and skills and personal insights about practice. However, the National Board Certification process diverges significantly from what typically qualifies as “professional development” — more characteristically aimed at supporting teachers’ growth in a narrowly targeted area and often times delivered with specific short-term outcomes in mind. In contrast, National Board Certification demands that teachers reflect upon and evaluate all facets of their work. Viewing National Board Certification not only as a mechanism for identifying exemplary teaching, but as a professional development tool, might lead to a different set of expectations about the outcomes of the process — and different ideas about assessing its effectiveness.

### Is National Board Certification professional development?

Professional development is something every teacher can and should do and benefit from. Although the concept can be expanded to include major teacher-change initiatives, good professional development most often helps teachers learn specific, targeted skills and strategies. National Board Certification, on the other hand, is a broad framework for examining practice, rather than a series of lessons or steps in improving particular aspects of teaching and learning. It is

also — and we believe it must remain — a respected and voluntary credential, a mark of accomplishment.

The National Board does not provide formative, written feedback when candidates’ scores are returned. This is a deliberate choice. The assumption is that in a rigorous professional assessment of practice, candidates can be expected to use the clear rubrics and standards provided at the beginning of the process to determine their personal areas of weakness. While a student requires supporting feedback to scaffold his or her learning, a professional accepts personal responsibility for deep understanding and application of standards of practice in seeking national certification. This same outlook can be found in the advanced certification processes of other professions.

School districts that define a program supporting National Board Certification as professional development with specific outcomes in mind may be disappointed. If, for example, a district goal is to improve mathematics performance on statewide assessments, it may be more efficient to train teachers in strategies that directly address areas where student performance in mathematics has been lagging, using materials and methods that all teachers need to master. Compared to more targeted learning opportunities, the impact of increasing the numbers of NBCTs in a particular setting or content area is likely to be difficult to detect through conventional data-gathering — especially if the number of NBCTs represents a small percentage of the teaching force. While there may well be noticeable benefits or changes for students in an NBCT’s classroom, these changes may not be immediately apparent in test-derived evidence about a particular skill.

Our colleague Patrick Ledesma of Virginia is concerned that “When the primary focus becomes an avenue to professional development (and I’ve seen school systems look to National Board Certification

as staff development), it can change its rigor and value.” At the same time, we see that National Board Certification provides a set of lenses for looking at the impact of individual teaching and a conceptual framework that seems to ring true for many teachers. We have all found the ideas, language, and process of certification useful — and even compelling — in our own professional growth. One team member confessed to tears when she first read the standards she was expected to meet to gain her certificate. This response may strike the average person as hyperbole, but it is well understood by other NBCTs. Standards that define your daily work as complex, intellectually rich and important to society are gratifying, motivating, challenging, and sometimes intimidating. Teaching in America is a profession still in the making.

## The National Board Certification process is transformative

Most teachers in America are familiar with student content standards. Standards for teaching are something completely different. They speak to the creative and flexible delivery of instruction, to relationships with students, to passion for and deep knowledge of a subject, to mastery of diverse tools and procedures, and to a rich vision of the teacher as an educated person and a learning resource in a professional community. The professional learning associated with National Board Certification emerges from the personal quest to fully realize these standards. Susan Graham, our colleague from Virginia, commented:

*NBCTs have told me that as they started perusing their standards and seeking out professional journals and other sources to help them master the ‘common language’ of effective teaching, they discovered that many of the concepts they had sort of worked out on their own were described in the literature. There was research that expanded and filled in the gaps of what they knew intuitively but hadn’t clearly defined. ‘Good ideas’ and ‘things that work’ became a part of a research-based instructional plan, rather than lucky guesses or sheer instinct.*

National Board Certified Teachers overwhelmingly say that they teach differently after experiencing the certification process. Even teachers who sit for

certification but do not achieve it will often say the process alters their practice and perspectives. National Board Certification is transformative at a level beyond most professional development. And it also involves a much greater investment of time, effort, and personal risk than other growth experiences related to teaching. Margarita Méndez, our California colleague and a foreign language expert, said that she pursued certification because no adults ever saw what she did in the classroom and she wanted her practice to be judged by other professionals.

*The National Board process helped reenergize my teaching. It helped me articulate what I knew about good teaching. I didn’t have to go further than my own classroom to find my graduate program. My research was right in front of me, pushing me to rethink what I was doing and why I was doing it. Because it was applied, embedded learning, it will stay with me each day, each week, and each year of my journey.*

We would describe the National Board Certification process as both formative and summative assessment for teachers. It becomes formative when candidates are willing to open up their practice, suspending the conviction that they are already doing everything well. The dispositions that candidates bring to certification (ability to change, trust in the process, acceptance of cognitive discomfort) and their ultimate goals in pursuing certification (personal validation, salary increase, improving their teaching) are central in determining whether their experience will result in professional growth — and even lead to professional transformation.

The National Board process is neither simple nor intuitive. It requires teachers to articulate why their teaching decisions lead to student learning, using evidence found in student discussion and work products. It forces candidates to examine, and reflect, and stretch their understanding to assimilate a more complex conceptual framework of teaching. Our colleague Ellen Holmes of Maine says:

*Each and every year we see good, even awe-inspiring teachers who do not achieve certification in my state. They are admired and respected, so when they do not achieve NBCT status, we want to be skeptical about the value of the process. We also see teachers who are quiet, not in the spotlight, and don’t do things the*

way we do. When they achieve certification, that also makes some question the process. But unlike other professional accolades, National Board Certification requires candidates to articulate and prove what, precisely, has been taught to students and why it is important for students to know. It is not about the candidate's writing style or the biases of NBPTS scorers — as much as we would like to think so when teachers we like don't certify.

Logistically, National Board Certification is a major challenge and sometimes, a months-long headache. But the real difficulty for most candidates is wrapping their minds around the idea of defending — or overhauling — what they have always done, using believable, concrete examples of student growth. As a profession “still in the making,” we are not accustomed to looking at our teaching in this manner — but we should be.

## Is there evidence that the process results in professional growth?

We reviewed studies where researchers found no evidence that National Board Certification functioned as useful professional development, when professional development was defined as the acquisition of new knowledge or skills leading to observed changes in practice or improvement in student achievement. We would argue, however, that the changes emerging from the certification process are cognitive shifts, and it is difficult to observe or measure adaptations in thinking that occur over time. In an online discussion, researcher Doug Harris of the University of Wisconsin — whose own data suggested that NBCTs do not produce measurable student achievement gains in the year in which they certify — told us emphatically:

*Professional development often may take a few years for the effects to be evident. To my knowledge, there is no study [of NBCTs] yet that looks at that kind of analysis over a long enough period of time to examine this possibility.*

National Board candidates become familiar with three kinds of thinking and writing about teaching practice — descriptive, analytical and reflective. One of our team members describes these three levels:

- *Descriptive:* My students all scored 80% or above on a quiz about evaporation and condensation.

# What I Learned to Do Differently

By Anthony Cody, NBCT  
Oakland (CA) Unified School District

When I began the National Board Certification process as a teacher of middle school science, I had a very limited understanding of how to use assessment in my classroom. The tests that accompanied the science text were pretty useless, because I was not interested in getting my students to memorize all the facts in the book — and my students were decidedly not interested either. Assessment, I knew, needed to be centered on the more complex projects that I assigned my students. But to what purpose?

I had a rude awakening when I worked on my National Board Certification portfolio. I quickly came to see that I was giving assignments and collecting work, but there were not many connections between what I was assigning and what I hoped my students would learn. The National Board Certification process asked me to describe what I had asked the students to do, how I had prepared them to do it, how I gave them feedback along the way, and what their final work showed they had learned. This was surprisingly tough!

During the year I certified, I began to explore ways to improve my assessment tools. I gave the students rubrics for their project assignments and shared models of good work. I experimented with having the students read and review one another's work, to improve their own understanding of what quality work looks like, and got them engaged in the revision process — which is where a great deal of growth can occur.

When I finished the National Board Certification process, the experience convinced me that I still had a lot to learn about assessment. When I was invited to join a National Science Foundation project at Stanford, focused on assessment in science classrooms, I leapt at the chance. I spent the next two years continuing to evaluate and reflect on practices I had begun using during my National Board Certification year. I realized the powerful role ongoing classroom assessment can have in driving student improvement and in guiding my own instruction. The National Board process helped me identify a weakness in my teaching and set me on the path of continuous improvement in this aspect of my professional practice.

- *Analytical:* My students all scored 80% or above on the quiz because I used hands-on examples, text-based information with supplementary visuals, and a film clip where auditory learners could hear the content. I also set the stage by pointing out evaporation and condensation occurring in our classroom.
- *Reflective:* My students all scored 80% or above on the quiz, which may mean that I need to set more complex and challenging goals. Using students' answers on the quiz, I see most of my students are on-target, but a few need rich extension activities, and one needs more review.

Many educators, and many researchers who have examined the effects of the National Board process, stop looking at the impact of effective practice after the first level. If teachers can *describe* the results of their teaching success, they are thought to meet the definition of “effective.” **Yet National Board candidates say that establishing the deeper levels of analysis and reflection are the biggest benefit to the certification process and have the greatest impact on fine-tuning their practice.**

Andy Kuemmel, our Wisconsin colleague, has observed that “NBCTs show more and varied indicators of quality teaching. Both for myself and for candidates I mentor, I know that the process challenged us to do some things that we were not doing before, things that we continue to do today.” These new habits of practice — of analysis and reflection — require us to rethink long-held beliefs about our personal efficacy. The resulting dissonance is uncomfortable but productive. Catherine Snyder, an NBCT in New York, told us:

*My reading on adult learning theory (particularly the work of Jack Mezirow in Transformative Learning Theory) reinforces what many of us who have gone through the National Board process have experienced. As adults, we need to be put into a situation that is uncomfortable or unsettling in some way before we change the way we think. That is the value of the process for so many teachers. It changes how they think.*

We would also note, in the context of professional development, that one of the less-acknowledged professional benefits of sitting for certification is

the rigorous content review most candidates carry out before taking the Assessment Center exercises, which constitutes 40 percent of a candidate’s final certification score. For some candidates, these content tests represent their first serious re-examination of a comprehensive body of disciplinary knowledge since college. For those who teach in a narrow developmental level or subject area, certification provides an impetus for studying new knowledge in their field. The National Board process is about good teaching and knowing your students (and families) well. It is also about content.

### Candidate support: Collaborative learning or unfair advantage?

Like mentoring, teacher-to-teacher assistance for National Board candidates can function as collaborative professional learning. It can also cross the ethical line when supporters instruct colleagues on how to manage or even shortcut their National Board process. Nationally, the quality and nature of support for National Board candidates varies widely — from casual, collegial conversations over portfolio entries, to elaborate and well-funded programs with pre-set learning modules and mandated schedules. **We have concerns about the intent and actions of some candidate support programs, including those that are labeled or considered “professional development.”**

There are obvious tensions inherent in supplying professional support to fellow teachers pursuing National Board Certification. Becoming a candidate represents a very public professional risk for teachers (some of whom may have chosen teaching for its relative occupational security). In many jurisdictions, National Board Certification is also a high-stakes assessment, attached to salary incentives, leadership roles, and other tangible rewards for certifying. In some states, there are financial bonuses not only for those who certify, but also for NBCTs who support candidates. This can encourage participating NBCTs to view candidates as “customers” and worry over recruitment and success rates. In other instances, teachers may simply not be accustomed to — or comfortable with — carefully measuring the support they provide to co-workers or friends. Many educators are by nature “helpers” — they have chosen a career where teaching

someone to perform successfully is their highest aspiration and satisfaction.

These factors can form a “perfect storm” for unproductive, inappropriate, or even unethical support for National Board candidates. Within our *TeacherSolutions* team, we have a vast amount of experience observing and working within candidate support programs. **When we scrutinize the most questionable candidate support activities, we nearly always find external incentives.**

Programs where candidate support is limited to surface-level “tips and tricks” for managing the rules, paperwork, and technical aspects of certification are mainly missed opportunities for collaborative dialogue. There may be no rich discussion around standards-based teaching, or any productive change in teaching habits, but ethical boundaries aren’t breached. However, some NBCTs — in their eagerness to help colleagues obtain certification status or to promote National Board Certification — tell candidates directly what to write or study, or share their own successful portfolio entries, violating both the principles and spirit of a voluntary benchmark of excellence. **We believe candidate support can be a powerful learning tool. But we state forthrightly that those mentors who cut ethical corners are guilty of damage to the profession.**

Ironically, unethical candidate support seldom produces certified teachers. There are many safeguards in the NBPTS scoring protocol, including video recordings of candidates’ teaching. Even so, these inappropriate practices negate the benefits derived from conversations about good teaching and may allow candidates to bypass the deep reflection that epitomizes the National Board Certification process.

Candidate support often happens in groups — looking together at student work and video-recorded lessons can be a very productive exercise. Quite often, a candidate support program may include a cadre of teachers from a particular school. When candidate support ignores the powerful potential of genuine collaboration, it passes up an opportunity to engage a group of effective teachers in deep, site-specific conversations. This is especially disappointing in high-needs schools, where high-quality teacher collaboration can be a

## Spreading NBCT Knowledge and Support

By Kathy Pham, NBCT  
 Miami-Dade County (FL) Public Schools

In Miami-Dade County, our early efforts at National Board Certification candidate support were sporadic. Most often, it was one colleague agreeing to show another how she did it. Over several years we came to realize that effective support must be more standardized and more available. We now offer monthly mentoring sessions at six different geographical areas of the county; “Meet-and-Greet” sessions for mentors and candidates; informal candidate discussion groups at various schools; online mentoring; and teacher-to-teacher courses offered by NBCTs.

One excellent teacher-led professional learning opportunity is a course developed by Miami-Dade NBCTs called “An Introduction to Accomplished Teaching.” Centered around the NBPTS Five Core Propositions, this is not a “how-to” course on completing the National Board Certification process but a curriculum designed so all teachers (not just candidates) can examine the knowledge, skills, dispositions, and beliefs of accomplished teachers. Through this experience, participants learn how to analyze and reflect upon their own teaching and pursue higher levels of accomplishment in their daily teaching practice.

I have enjoyed teaching this course myself. My two favorite students were colleagues at a high-needs school who were only in their second year of teaching. They wholeheartedly embraced everything they could learn to improve their teaching and help their students, and they were inspired by the National Board’s vision of what teachers should know and be able to do. Their example illustrates the value of such courses and the value of NBCT leadership in not only supporting successful candidates but in improving teaching quality across a large population of teachers.

# Building Teacher Community in High-Needs Schools

By Carolann Wade, NBCT

Wake County (NC) Public Schools

Candidacy for National Board Certification is a prime opportunity for teachers to grow in both content knowledge and pedagogy. In North Carolina, with its strong support for National Board Certification candidacy, an important evolution occurs when teachers within buildings and across school districts become colleagues, working together toward a common goal of demonstrating accomplished teaching practice. Conversations in the hallways, in the teacher workrooms, and in faculty meetings become centered on how to improve teaching and learning. Teachers who are not candidates observe the changes that are occurring in their colleagues — and the climate of the school begins to change.

Some teachers hesitate to pursue National Board Certification because of the amount of time required during candidacy. This time commitment is a special concern to many teachers in high-needs schools. As part of an effort to address this concern, my district encouraged 12 teachers in an elementary school with a diverse student population to participate in an NBPTS program called *Take One!*

The *Take One!* option allows teachers to complete one pre-selected portfolio entry and have it scored. *Take One!* participants are not National Board Certification candidates, but the *Take One!* score can be used in an eventual National Board portfolio, should they become full-fledged candidates later. This allows teachers and guidance counselors to complete a small portion of the process for either the professional growth experience or as a way to ease into candidacy.

The 12 participating teachers in our school met bi-weekly to collaborate and learn more about standards for teaching excellence and how to use student assessment to drive instruction. Discussions were based on portfolio requirements and National Board Standards. Students in the school benefited from this rich, collaborative professional development, because their teachers critically examined their own teaching practices and explored new ways to link assessments to improvements in learning.

The effect of 12 teachers working together on a sharply focused professional learning team had a positive school wide impact as well. “*Take One!* is the best thing that has happened at our school this year,” the principal said. “It created a professional learning community. Teachers are talking about curriculum and teaching. It has created a cadre of teachers with a sense of unity and purpose, working together toward a common good. We’re having conversations about best practices and we’re growing professionally.”

The participating teachers agreed. One teacher wrote: “*Take One!* brought us closer as a team. It gave us insight about how well we were already doing, and it helped us see how to improve.”

powerful agent to leverage student learning and school improvement.

In our own experience in working with candidates in high-needs schools, we find group-based candidate support is often the first opportunity teachers have had to experience the process of examining student work products for evidence of learning, or to observe the architecture of their own daily lessons. The candidate support process may even be a teacher’s first opportunity to have a professional conversation with a like-minded colleague. In a hard-to-staff school, where novice and under-prepared, alternative certification teachers are common, NBCTs involved in candidate support can serve as on-site models of effective instructional practice.

**We see potential for great value in groups of teachers collaboratively learning to use the National Board tools and standards, but we do not wish to see candidate support become a commodity, nor to witness the best support being reserved for groups or school sites that can afford to pay a premium price.**

An NBCT who teaches in a well-funded suburban system told us this story about working with candidates in a nearby city:

*As National Board program manager for my own district, I helped 65 candidates with the process, including content support. I also worked with [city] candidates through the local university. What a contrast in levels of support! The suburban candidates had a well-organized structure in place to shepherd them through the bureaucratic maze, plus experienced facilitators to guide them through portfolio and assessment center preparation. The [city] candidates had only eight weeks (February-March) of direct support from another volunteer and me to prepare their portfolios. One of them called me this morning — she missed by TWO points. She and I decided this was darned good, considering she put her portfolio together in six weeks. She is making plans for retaking two portfolio entries.*

There are many high-quality, principled models for delivering candidate support, including one developed by experienced NBCT-mentors through the National Board itself. We urge NBPTS to continuously monitor and guide support programs around the country

and provide open channels of communication with NBCTs who see candidate support as an opportunity for leadership in improving their profession. This may mean providing free guidance, materials, and instruction to NBCTs who wish to support candidates ethically and effectively. We believe it is in the National Board's best interests to separate programs that represent "best practice" in assisting candidates for the rigorous National Board assessment from other "professional development products." This can help protect the integrity and value of the assessment.

## A Final Reflection

The National Board Certificate is active for ten years, and in their eighth or ninth year, NBCTs must begin the renewal process to retain their certification. Having a renewal process in place indicates that National Board Certification is not a static designation. There is an expectation that teachers must regularly examine and improve their teaching, and remain active as leaders, learners, and collaborators.

We are heartened that National Board Certification demands continuing proof of teachers' professional growth, when most other professional certifications or advanced degrees are granted only once. The renewal process speaks to an ongoing continuum of accomplished practice, a commitment to continuous school improvement and the growth of our profession. We know that National Board Certification pushes teachers to greater skills and understanding, but for many NBCTs the ultimate aim is recreating the profession of teaching to meet the changing needs of our students.

With national standards in place that describe professional teaching, we believe we are closer to the day when teachers are routinely expected to control our own work. But as our Virginia colleague Patrick Ledesma observes, becoming a true profession will take time and will necessarily challenge current thinking about what it means to be a good teacher — even among teachers themselves. The visionary and demanding standards woven into National Board Certification "challenge the status quo of our profession," he says. "And that makes it a big target."



# Findings & Recommendations

Since August 2007, the *TeacherSolutions* team has reviewed the empirical evidence, interacted with researchers, reflected on our own experiences, and challenged one another to examine the impact of National Board Certification on teachers and the students and schools they serve.

We believed then — and continue to believe now — that the National Board Certification process provides an excellent opportunity for teacher growth and development. Through our collective study and dialogue, we have concluded, however, that the current means of measuring the effects of the advanced certification process on student achievement has yet to yield accurate results.

Our careful examination of the research and the policy landscape surrounding National Board Certification leads us to offer recommendations for three audiences: researchers, policymakers, and the National Board for Professional Teaching Standards. We were very deliberate in our analytical process and believe others can gain from the on-the-ground perspectives we bring to the table.

## For Researchers

Much of the research measuring the impact of National Board Certification focuses solely on student test scores. These standardized data offer a convenient and readily available research base but cannot fully capture the value that accomplished teachers add to student learning. Researchers need to ask different questions and use multiple, diverse indicators of teaching effectiveness in ascertaining the impact of NBCTs on student learning, and the impact of National Board Certification on teacher practice.

- Relevant studies will measure the effects of National Board Certification on student learning using multiple measures (e.g., authentic assessments, project-based learning products, student engagement, reduced discipline, drop-out rates) as well as the “snapshot” data resulting from standardized tests.

- Careful researchers will engage NBCTs themselves in the process of research study design and development in order to create more robust research models that include multiple measures of student growth.
- Researchers should conduct more studies on the dimensions of effective teaching, how teachers advance student learning, and how they spread their expertise. A potentially rich resource to inform this research is the massive and consistently updated library of videos, commentaries, and student work submitted to NBPTS from certification candidates annually. Studies should examine the top tier of NBCT submissions to find commonalities and begin expanding and deepening the definition of what “effective teaching” looks like.
- Researchers should further examine how NBCTs serve as an organizational resource for the entire public education system. For example, scholars might identify and document school-based models where NBCTs have been effective and examine how to bring these models to scale, reproducing them in diverse contexts.
- Before proposing policy interventions, researchers should demonstrate a clear understanding of the purposes and processes of National Board Certification. In the current research climate, we see too many examples of researchers redefining these purposes and processes (which have been clearly stated by NBPTS) to fit their own policy agendas.

## For Policymakers

Much of the policy debate around National Board Certification has taken place out of the hearing of NBCTs. As a result, policymakers have often acted without considering the insights of expert practitioners who have successfully completed the process and applied the understandings they gained to their own professional work.

*Here is what NBCTs know from their experience as candidates and mentors of other candidates:* The National Board Certification process can serve as an excellent tool to identify quality teaching and improve professional practice. It should be viewed through the lens of increasing human capital, not strictly from the perspective of short-term costs and benefits. Smart state and local policies will support candidates as they go through the process and then capitalize on the leadership and skills of those who successfully complete it. Once this dynamic environment is created and sustained, we are confident that teaching quality will improve.

- Policymakers should craft policy around specific goals, such as offering incentives and time for NBCTs to spread their instructional expertise to a wide range of colleagues, rather than focusing on simply producing more National Board Certified Teachers.
- Policymakers, who have already made significant investments in National Board Certification in many jurisdictions, should advocate for the expansion of leadership opportunities for all NBCTs and emphasize programs that increase the population of NBCTs who are teachers of color.
- To increase the population of NBCTs working in high-needs schools, policymakers will need to support policies and practices that improve working conditions for teachers in these schools, so they will be confident of support from school and system leaders during the National Board process.
- Policies that promote high quality professional development directly aligned with National Board Standards can produce rapid improvements in the teaching quality of a school. These policies would create incentives for teachers and administrators to jointly restructure the school day to provide time for collaboration, roles for leadership, and opportunities for teachers to pursue National Board Certification.
- Policymakers should support “hybrid” teaching roles for NBCTs so they may teach students

part of the day and also assist with professional development, curriculum revision, mentoring, and teacher education. Such policy approaches will maximize the value of teachers who have been identified as effective by allowing them to serve as agents for quality teaching for all students.

- We support the use of multiple sources of data to evaluate individual teachers and assess the effects of individual educators on student progress. We also call on policymakers to exercise caution in relying on value-added methodology to make these individual judgments. Few standardized tests are designed and scaled so individual teachers can be assessed fairly on how much they help students learn content in the same subject area over time.

## For the National Board for Professional Teaching Standards

The National Board for Professional Teaching Standards has made great strides in the past two decades to professionalize teaching. This organization has established standards, created robust assessments, and expanded certification to reach many areas of teaching expertise. To meet the demands of 21st century teaching and learning, however, more must be done to harness the desire of thousands of NBCTs to lead efforts to transform the teaching profession.

- We recommend strategic partnering and communications that would make the mission, vision, and work of NBPTS transparent to researchers, policymakers, and the general public.
- We urge NBPTS to consider how education leaders can be made more cognizant of the potential power of the certification process to spread teaching expertise.
- We call for NBPTS to focus primarily on designing and implementing the best teacher assessments in the world. New technologies make it possible for teachers to document how they promote student learning in unprecedented ways.

- We believe, with the aid of more highly refined assessment tools, candidates for National Board Certification can show how they impact key aspects of student and school success (like reducing the dropout rate); how they prepare future workers for the 21st century global economy, and how they cultivate engaged citizens for our nation's 21st century democracy.
- NBPTS should more actively promote the voices and talents of NBCTs and more fully involve NBCTs in organizing and leading the NBPTS national conference.
- NBPTS should not only fully utilize the knowledge and skills of NBCTs in its own work but also promote and support other organizations that do so.
- NBPTS should advocate for NBCT leadership roles in many venues. More NBCTs should become principals, teacher educators, action researchers, and school-community ambassadors in the future.
- Finally, we urge NBPTS to accelerate its efforts to partner with higher education and incorporate the NBPTS Five Core Propositions into both teacher and administrator preparation programs. At the same time, we believe NBPTS must reach out to the growing number of non-profits that are recruiting a new generation of teachers, principals, and superintendents through alternative pathways.

**We are grateful for the opportunity** to step back and study the research about National Board Certification that many policymakers, think-tank analysts, union leaders, and administrators are also discussing. To our knowledge, this is the first formal opportunity for NBCTs to review and assess the empirical evidence of the impact of the National Board Certification process on both student and teacher learning. We have increased our own understanding of the complexities of quality teaching during these months of reflection, much as we did during our individual journeys through the rigorous National Board assessment process itself.

We believe our analysis will be helpful to everyone with a sincere desire to advance the teaching profession and ensure that every student is taught, supported and inspired by highly accomplished teachers. That vision energizes our own daily work in America's public schools. It gives us hope that our profession will continue its upward spiral and ultimately earn the respect and recognition it deserves.



# Profiles

## The *TeacherSolutions* NBCT Team



**Nancy Flanagan**  
**TEAM LEADER**  
 Michigan  
 EA/Gen 1998

Our TS-NB team leader, Nancy Flanagan, is a 31-year teaching veteran (K-12 music) who recently retired from the Hartland (Michigan) Consolidated Schools. She spent two years as a Teacher in Residence at the National Board for Professional Teaching Standards, with responsibilities for outreach, teacher leadership, candidate support, and NBCT Networks. Nancy was Michigan Teacher of the Year in 1993 and a featured teacher in the Annenberg/PBS Learning Classroom series. She also served on the national development team for the NBPTS Music Certificate. From 1994 to 2001, Nancy moderated the State Teacher of the Year online community for the U.S. Department of Education. She is an active member of the Teacher Leaders Network, a featured TLN blogger, and author of a chapter in the recent book *Uncovering Teacher Leadership* titled “Diamonds on the Soles of Her Shoes.” Nancy is also the co-creator and pilot facilitator of Virginia Commonwealth University’s online Teacher Leadership course and a professional flutist. She was a member of the inaugural *TeacherSolutions* team, which produced the 2007 report *Performance-Pay for Teachers*.



**Anthony Cody**  
 California  
 EA/Sci 2000

Anthony Cody is a science content coach for middle and high school teachers in the Oakland (California) Unified School District. From 2005 to 2007, he served as a consulting teacher in the district’s Peer Assistance and Review program. Anthony taught science and mathematics for 18 years at Bret Harte Middle School in Oakland and became one of Oakland’s first NBCTs in 2000. He has coached National Board candidates and convened an NBCT leadership forum in Northern California. Anthony participated in the Apple Computer Digital Edge project and served as a leader of K-12 science curriculum projects in Oakland and at Stanford University. From 1995 to 1998, he was a teacher on loan at the Lawrence Hall of Science and assisted in the development of the FOSS middle school science curriculum. Anthony is a member of the Teacher Leaders Network and served on the *TeacherSolutions* professional compensation study group. He was recently featured in a PBS NewsHour report examining teacher reactions to No Child Left Behind, and he has written several *Teacher Magazine* essays.



**Susan Graham**  
 Virginia  
 EAYA/CTE 2002

Since 1988, Susan Graham has taught family and consumer science at Gayle Middle School in Stafford County, Virginia. Susan began her teaching career in 1971 as a high school homemaking teacher in Fabens, Texas. She has been the NBPTS/State Farm Liaison for Virginia since 2004 and served in 2003 as an Assessor for NBPTS/CTE Entry 4. She was the Stafford County Teacher of the Year in 1999 and was selected as Virginia’s Region III Teacher of the Year in 2000, when she also received the Rufus Beamer Individual Award for Excellence in Vocational Education. She served on the Virginia State Department of Education’s writing team for *Merging Routes to Exemplary Teaching: A Resource for Field Experiences* (2006) and has been a guest writer and expert commentator for Editorial Projects in Education (publisher of *Education Week* and *Teacher Magazine*). Susan has also served as a Fellow of the Teacher Leaders Network and began her TLN-branded blog *A Place at the Table* at *Teacher Magazine* Online in the fall of 2007.



**Ellen Holmes**  
Maine  
MC/Gen 2000

Ellen Holmes is on leave from her post as Director of Professional Development for the Maine Education Association (MEA) while she serves as a Distinguished Educator on Loan to the Maine Department of Education (DOE). In her role at the Maine DOE, Ellen is developing a statewide system to scale up several professional learning projects she developed at MEA. She is also the NBPTS Candidate Subsidy Administrator and is leading two THNI grant initiatives for the NBPTS *Take One!* program. From 1994 to 2004, Ellen was an elementary teacher in the Bangor Public Schools system and also served as an adult educator and community school coordinator. She has been a consultant and program manager for the NASA CONNECT program, where she wrote scripts and edited curriculum guides for programs like Team Extreme and Ancient Observatories. Ellen continues to pursue her interest in technology integration as the lead developer for Maine's Partnership for 21st Century Skills project. She received the Maine Education Association's Excellence in Education Award in 2002 and the American Institute of Aeronautics and Astronautics National Educator Achievement Award in 2003. Ellen is a member of the Teacher Leaders Network.



**Andy Kuemmel**  
Wisconsin  
AYA/Math 1998

Andy Kuemmel teaches mathematics and computer science at Madison West High School (Wisconsin). He is beginning his 18th year of teaching, which has included stints at both rural and suburban schools in Wisconsin. Andy was the first person in the state to earn National Board Certification (now up to 402 NBCTs), and was the founding president of the Wisconsin National Board Network and an early promoter of National Board Certification in the Wisconsin Education Association. Andy has also chaired the State of Wisconsin's Master Educator License team and helped develop licensing assessments. As a frequent presenter at professional development workshops, he spends time helping teachers get up to speed with Classroom 2.0 and the interests of "digital natives." Andy has served as a leader of the Wisconsin Mathematics Council, an affiliate of the National Council of Teachers of Mathematics. He has also been the Chief Negotiator for his local union and was named a lead teacher by the Wisconsin Academy Staff Development Initiative.



**Patrick Ledesma**  
Virginia  
ECYA/ENS 2001

After service as a special education lead teacher in three Fairfax County, Virginia, elementary and middle schools (1997-2003), Patrick Ledesma pursued his passion for technology integration and

assumed the role of school-based Technology Specialist at Holmes Middle School, where his digitally enhanced adventures continue. Patrick also spent one year (2003-04) as a district staff developer and program manager for Fairfax County's NBPTS support program. During that time, he developed an online prototype for the district's "Great Beginnings" teacher induction program. Patrick is an adjunct instructor (and doctoral student) at George Mason University, where he has taught several National Board pre-candidacy courses. He's working on tutorial projects for Atomic Learning aimed at helping teachers integrate specific software into project-based learning activities. For an example, log on to Tour My School. Patrick was also a participant in Apple's Digital Edge project. He is a member of the Teacher Leaders Network.



**Margarita Méndez**  
California  
EAYA/WLOE 2006

Margarita Méndez teaches Spanish and Advancement Via Individual Determination (AVID) at Terman Middle School in the Palo Alto (California) Unified School District. She has served in positions as an elementary bilingual, immersion, and resource teacher at the Adelante Spanish Immersion School, part of the Redwood City School District in Redwood City, California. She has been a part of the Palo Alto Unified School District's World Language Steering Committee as a World Language Lead Teacher since 2004. Margarita served as a coach for

National Board Certification candidates at Stanford University from 2006 to 2007. She began serving as an Association Building Representative for the Palo Alto Educators Association in 2005. Margarita has also acted as a teacher leader at Spanish camps for several years.



**Kimberly Oliver**  
 Maryland  
 EC/Gen 2004

Kimberly Oliver began her education career in the Montgomery County (Maryland) Public Schools in 2000, teaching kindergarten in a culturally and linguistically diverse elementary school in Silver Spring, where she served as a teacher leader and helped in the successful redesign of the then-struggling school's instructional program. Kim was chosen as the 2006 National Teacher of the Year (NTOY) and has spent 12 months as a full-time spokesperson and advocate for public education and the importance of quality early childhood education programs. She is a strong believer in parent partnerships and community literacy and organized "Books and Supper Night," an event held four times a year that allows families to check out materials from her school's library. Kim, who was 29 when she received her national honor, is also a winner of the Greenblatt Excellence in Teaching Award and the second NTOY to join the Teacher Leaders Network. As her TLN-NTOY colleague Betsy Rogers (2003) did before her, Kim returned to teaching after her NTOY service.



**Kathy Pham**  
 Florida  
 AYA/ELA 2001

Language arts educator Kathy Pham began teaching at Hialeah Senior High in Miami-Dade (Florida) in the fall of 2007, after an eight-year period as a language arts teacher at the district's School for Applied Technology. Kathy began her career at Miami Carol City Senior High 1983 to 1999, where she rose to department head. She was Teacher of the Year (TOY) at the School for Applied Technology in 2004 and a finalist for Miami-Dade's district TOY award. She was also the Language Arts TOY at Miami Carol City High School in 1994. Kathy has been an active leader and board member of National Board Certified Teachers of Miami-Dade, Inc., one of the nation's most prominent NBCT Networks. She also serves as the NBPTS/State Farm Liaison for Florida and regularly mentors National Board candidates and trains other mentors. Kathy co-chairs a joint district-union committee on assessment. She holds two master's degrees in English Education and Educational Leadership.



**Carolann Wade**  
 North Carolina  
 EC/Gen 1999

Carolann Wade holds a two-tiered position in the Wake County (North Carolina) Public School System (WCPSS), both as Coordinator for National Board Certification and as a liaison for a partnership between WCPSS and Peace College's Teacher Education program, where she is

presently a full-time faculty member on loan from WCPSS. Carolann, who taught for 15 years in the elementary grades, has been a leader in strengthening her district's elementary mathematics and science programs, and received the Presidential Award for Excellence in Teaching Elementary Mathematics in 2002. She is a current board member of the NC Council for the Teachers of Mathematics and has been a Senior Fellow of the Teacher Leaders Network. She served as regional team leader for NBPTS's 2007 Hill Day and has presented at NBPTS and other national conferences on topics ranging from elementary mathematics/science to teacher leadership to classroom action research. She was a MetLife Fellow for the Teachers Network Policy Institute and has also served on state committees to revise North Carolina's elementary mathematics and science curriculums. Her essay on school-college partnerships appeared at *Teacher Magazine Online*.



# Research Summaries

Bond, L., Smith, T., Baker, W.K., & Hattie, J. (2000) The Certification System of the National Board for Professional Teaching Standards: A Construct and Consequential Validity Study. *Center for Educational Research and Evaluation, N.C.* pp. 1-134.

In conducting an internal validity study for NBPTS, Bond and his colleagues were among the first to link NBCTs to student learning. They found that NBCTs outperformed a matched sample of teachers who did not certify on 13 dimensions of accomplished teaching, significantly on 11 of those dimensions. Bond's research, which employed a blind study with trained assessors who observed classroom teaching, interviewed students and collected work samples, revealed that students of NBCTs produced higher quality work in their English/Language Arts classes and demonstrated higher order thinking skills. More than 74 percent of NBCTs' students demonstrated "deep understandings" of the English curriculum content, as compared to only 29 percent of non-NBCTs' students. Critics of the Bond study have noted the absence of student achievement data in Bond's evaluation of student learning. In a response to these criticisms, Bond stated that his sample was chosen to "enrich and inform" how the National Board Certification process captures teachers who can elicit a "depth of student understanding of concepts and principles targeted in instruction." Bond described how teachers who are certified by the National Board are far more likely to teach higher levels of thinking, and how their students, in the work samples collected, demonstrated higher levels of learning.

Cavalluzzo, L. (2004) Is National Board Certification an Effective Signal of Teacher Quality? *The CNA Corporation*, pp. 1-36.

Drawing on the large numbers of NBCTs in the Miami-Dade County (Florida) Public Schools, researcher Linda Cavalluzzo and her colleagues examined the effects of NBCTs on high school math students. Through a detailed quantitative analysis of a comprehensive data set containing information on teacher characteristics, student background and behavior, and school environment, Cavalluzzo demonstrated the advanced certification process had a profound impact on student learning. In examining the association between student gains in mathematics in the ninth and tenth grades, the researchers found that NBCTs' students gained 12 percent of a standard deviation on test scores. In addition, all else being equal, Hispanic and African-American students gained even more. In the end, students whose teachers were National Board Certified fared far better than those teachers who did not certify or those who dropped out of the process.

Cohen, C. & Rice, J.K. (2005). *National Board Certification as professional development: Pathways to success.* Washington, D.C.: The Finance Project.

Conducted under the auspices of The Finance Project, a well-respected, independent public policy think tank, Cohen and King conducted an extensive examination of 10 different NBPTS support programs and used voices of NBCTs to report on the process. They found that National Board candidates voiced uniform support for the process as a powerful form of professional development. They specifically identify the unique learning National Board Certification candidates experience as they assess student work, examine videos of their own lessons, and document their accomplishments in working with their students' families and community as well as with their colleagues within their own professional community.

Frank, K., Sykes, G., Anagnostopoulos, D., Cannata, M., Chard, L., & McCrory, R. (2006, April). Are Board certified teachers more helpful than non-certified teachers? A simple question? Paper presented at the Annual meeting of the American Educational Research Association. San Francisco, CA.

Researchers at Michigan State University applied sophisticated research tools to the results of state- and school-level surveys in Ohio and South Carolina and to follow-up case studies in 14 schools. Their goal was to determine the organizational impact of NBCTs and how their leadership responsibilities are enacted or not. Sykes and his colleagues reported that NBCTs are involved in leadership activities in their schools and that that involvement increases over time. They also found that NBCTs sought to become National Board Certified because they wanted to improve their teaching and student learning and that NBCTs planned to stay in teaching longer than other teachers. They also report that NBCTs are more likely to be found in schools where professionalism is expected and administrators trust and need teachers to lead. Through their examination of survey data, Sykes' team discovered a "spillover effect" of NBCT influence. They found that NBCTs assist other teachers, on average about 0.58 more than non-NBCTs in their school. The researchers claimed that "an effect of 0.58 suggests that if there are 10 NBCTs in a school, an additional six teachers or so will receive help with instruction that will reflect the experience of NBCTs (assuming no teacher receives help from more than one NBCT)."

Goldhaber, D. & Anthony, E. (2005) Can Teacher Quality Be Effectively Assessed? National Board Certification as a Signal of Effective Teaching. *Prepared for NBPTS through US Department of Education Grant Funds*, pp. 1-49.

In a large-scale study funded by the Bush administration, labor economists Goldhaber and Anthony found that National Board Certified Teachers were far more likely to improve student achievement. Over the course of a year, NBCTs in the study produced 1.5 more months of learning than their non-NBCT counterparts. Drawing upon over 600,000 student observations and over 32,000 teacher observations that included “valued-added” pre- and post end-of-year test scores in math and reading (between 1996 and 1999), Goldhaber and Anthony carefully looked at the student achievement effects generated by “current” and “future” NBCTs (with the latter defined as those who became certified after 1999) as well as those who were unsuccessful in achieving certification. Although in some cases the statistical differences were reported to be small, the researchers found consistently that NBCTs are more effective at raising student achievement than teachers who pursue but fail to obtain certification. The effects were much greater with younger (e.g., grade 3) and low-income students. However, the researchers did find that unsuccessful applicants were “actually less effective teachers in the year they applied” to the National Board. They also reported “mixed findings” about NBCT effectiveness the year after the teacher certified as well as an unequal distribution of NBCTs in higher-achieving schools.

Harris, D., & Sass, T. (2007). *The effects of NBPTS-Certified Teachers on student achievement. National Center for Analysis of Longitudinal Data in Educational Research*. Retrieved June 1, 2007 from [http://www.caldercenter.org/PDF/1001060\\_NBPTS\\_Certified.pdf](http://www.caldercenter.org/PDF/1001060_NBPTS_Certified.pdf).

Doug Harris and Tim Sass drew on five years of data on public school teachers and students in Florida to investigate the impact of NBCTs on student achievement. Harris and Sass generally found few differences in student achievement gains between NBCTs and non-NBCTs as measured by Florida’s high-stakes criterion referenced test (FCAT-SSS) and a norm-referenced test (FCAT-NRT); however, they did find that the students of NBCTs performed consistently better in reading than students of non-NBCTs on the FCAT-SSS — which is the criterion-referenced test based on the state’s curriculum. In their preliminary analyses they also discovered that NBCTs were no more or no less effective with high- or low-performing students. The data suggested that teachers did not improve as they went through the National Board process; in fact, in some cases they became less effective. In addition, they found that being fully licensed and holding an advanced degree appear to be more positive predictors of student achievement than National Board status. The researchers also sought to determine whether more NBCTs in a school yields “positive spillover” effects on student achievement. They found that having more NBCTs in a school does not seem to have much effect. However, they also found that while NBCT

mentors do not consistently produce higher student gains than other NBCTs, the more NBCT mentors a school has and uses, the higher their students achieved. This finding held for both mathematics and reading. Despite the concerns raised by their report, the researchers did conclude that National Board Certification “provides a positive signal of teacher productivity in general.”

Koppich, J. E., Humphrey, D. C., & Hough, H. J. (2005). Sharing the wealth: National Board Certified Teachers and the students who need them most. *Education Policy Analysis Archives*, 13(18). Retrieved [September 10, 2007] from <http://epaa.asu.edu/epaa/v13n18/>.

Daniel Humphrey and his research colleagues used a national survey to investigate teacher motivations for pursuing National Board Certification. They found a majority of teachers sought advanced certification to improve student learning, to increase the credibility as teachers, and to earn financial rewards. Only 44 percent sought certification in order to gain opportunities to influence change in their schools. The researchers also uncovered impediments to using NBCTs to improve the overall teaching quality at a school such as lack of administrator support, little time for collaboration, and a need for professional development for NBCTs on adult leadership. They concluded that under current organizational structures and working conditions NBCTs are not likely to be used systemically to help turn around low-performing schools.

Lustick, D., Sykes, G. (2005) National Board Certification as Professional Development: What are Teachers Learning? *Education Policy Analysis Archives* 14 (5), 1-47.

Lustick and Sykes conducted one of the first empirical investigations of what NBCTs actually learn as a result of their participation in the certification process. In a two-year, quasi-experimental study of 120 candidates seeking the Adolescence and Young Adulthood/Science (AYA Science) certificate, the researchers, using structured interviews and observations, found significant differences (with an overall effect size of 0.47) in what teachers knew before and after going through the process. After controlling for certification status and school characteristics, teachers demonstrated the most significant improvements in the “scientific inquiry and assessment” standards. In particular, Lustick and Sykes found that science teachers gained considerable knowledge in how “to develop in students the mental operations, habits of mind, and attitudes that characterize the process of inquiry.” Perhaps most importantly, Lustick and Sykes found that teachers “improved knowledge and understanding of science instruction” irrespective of whether they achieved certification. That said, while 40 percent of the study’s participants showed evidence of “dynamic learning” that changed their teaching beliefs and practices, another 40 percent seemed to display only “technical learning” which they may not necessarily apply in their classrooms.

McColskey, W., Stronge, J., Ward, T., Tucker, P., Howard, B., Lewis, K. and Hindman, J. (2005) Comparison of National Board Certified Teachers and non-National Board Certified Teachers: Is there a difference in teacher effectiveness and student achievement? *Prepared for: National Board for Professional Teaching Standards*, pp. 1-137.

Researchers from the University of North Carolina-Greensboro and the College of William and Mary attempted to examine the effect of NBCTs on student test scores using a VAM model and to compare the effectiveness of NBCTs and non-NBCTs. The study's sample was drawn from four North Carolina school districts; the researchers reported some difficulty in data collection that may have influenced their results. The researchers found little if any statistical difference between the math and reading test scores of NBCTs and those of highly- and least-effective non-NBCTs. NBCTs rated higher on planning competencies and challenge level of assignments but did not outscore a group of similarly skilled non-NBCTs in other measures of classroom effectiveness. On some measures (classroom management, organization, encouraging student responsibility), NBCTs scored lower.

Sanders, W. J., Ashton, J. J., Wright, S. P. (2005) Comparison of the Effects of NBPTS-Certified Teachers with Other Teachers on the Rate of Student Academic Progress. *Prepared for NBPTS by the SAS Institute*, pp. 1-37.

In a study commissioned by the National Board, William Sanders, using his highly publicized value-added methodologies, found that students of NBCTs did not perform any better than students of teachers who engaged in the process and did not achieve or those who did not participate at all. Sander's data did indicate that NBCTs outperformed non-NBCTS on 27 of 30 measures; however, the differences were not statistically significant. Sanders' study involved test records from two large school districts in North Carolina — Charlotte-Mecklenburg and Wake County — both of which have been promoting Board Certification for some time. He drew upon data from 35,000 student records and 800 teachers in examining grades 4 through 8 mathematics and reading test scores from 1999 through 2003. However, Sanders' report offered little information on the actual number of teachers studied in each of the grade levels or the subjects examined. His study also contained limited information on the teachers with whom the NBCTs were compared, and how teachers were identified for placement into each group.

Vandervoort, L., Amrein-Beardsley, A., Berliner, D. C. (2004) National Board Certified Teachers and Their Students' Achievement. *Education Policy Analysis Archives* 12 (46), 1-117.

An Arizona State University research team found, in analyzing four years of data from 35 classrooms, that students of

Board Certified teachers performed at much higher levels than a matched sample of students taught by non-NBCTs. In three-quarters of the 48 comparisons, the students of NBCTs outperformed their counterparts. Due in large part to small sample sizes, the results were considered statistically significant in about one-third of those cases. Audrey Vandervoort, the principal investigator, concluded that NBCTs "were able to get in about 25 more days of instruction in the typical 180 day (school year)." In her test score analyses, Vandervoort was not able to take into consideration differences in student attributes that may correlate with National Board Certification, and little is known about the non-certified teachers in the study. However, in addition to their student achievement analyses, the Arizona researchers sought to systematically discover how principals viewed NBCTs. Eighty-five percent of principals surveyed said NBCTs in their schools were among the best teachers they had ever supervised, while 75 percent reported observing positive changes in the practices of teachers who sought National Board Certification.



# Notes

- <sup>i</sup>Lankford, H., Loeb, S., & Wycoff, L. (2002). Teachers sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis* (24) 1, 37-62; Ingersoll, R. (1999). The problem of underqualified teachers in American secondary schools. *Educational Researcher*. 28(2), 26-37; Mayer, D.P., Mullens, J.E., & Moore, M.T. (2000). *Monitoring school quality: An indicators report* (NCES 2001-030). Washington DC: NCES.
- <sup>ii</sup>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 June 1, 2007 from <http://epaa.asu.edu/epaa/v15n7/>
- <sup>iii</sup>Finn, C. & Wilcox, D. (1999, August 9). Board games: Failure of National Board for Professional Teaching Standards to accomplish objective of improving quality of teaching in the US. *National Review*. Retrieved July 1, 2007 from <http://www.fordhamfoundation.org/institute/publication/publication.cfm?id=161>
- <sup>iv</sup>Koppich, J. E., Humphrey, D. C., & Hough, H. J. (2005). Sharing the wealth: National Board Certified Teachers and the schools that need them most. *Educational Policy Analysis Archives*, 13(18). Retrieved on June 13, 2007 from <http://epaa.asu.edu/epaa/v13n18/>
- <sup>v</sup>Rotherham, A. (2005, March 30). Give credit where it's due: Putting nationally certified teachers into the classrooms that need them most. *Education Week*, 24(29), 48.
- <sup>vi</sup>Keller, B. (2006). National board teachers no better than other educators, long-awaited study finds. *Education Week (online, May 9 2006)*. Retrieved May 29 2008 from [http://www.edweek.org/ew/articles/2006/05/09/37nbpts\\_web.h25.html](http://www.edweek.org/ew/articles/2006/05/09/37nbpts_web.h25.html)

The Center for Teaching Quality (CTQ) launched its TeacherSolutions initiative in 2006 when a select team of 18 highly accomplished teachers from throughout the nation was assembled in a unique effort to study and unpack the research literature around a critical issue in educational policy – professional compensation for teachers. Through ongoing virtual conversations and a series of virtual webinars, these expert practitioners assessed and debated the issues with researchers well versed in value-added methods. They also engaged in structured dialogue with policy analysts, community activists, teacher union leaders and practitioners who have been involved in a variety of performance-pay plans across the nation. From their work was born the TeacherSolutions model, an innovative process for calling on the true experts in education to address policy issues. This report represents the insightful thinking of ten highly accomplished teachers regarding another topic of utmost importance for America’s schools – the role that National Board Certification can play in ensuring a quality teacher for every student. Their study included literature reviews as well as dialogue and debate with the leading thinkers and researchers who have investigated the value of the certification process. The teachers who have authored this report explored this topic through their dual experiences as National Board Certified Teachers as well as practitioners keenly aware of the needs of today’s students. They are the experts who experience the impact of policy where it matters most: in America’s classrooms.



CTQ seeks to improve student learning and advance the teaching profession through cultivating teacher leadership, conducting timely research and crafting smart policy around what must be done to ensure that every student in America has a qualified, well-supported and effective teacher. Over the past ten years, the Center’s work, rooted in the National Commission on Teaching and America’s Future (1996) landmark report, has sought to promote a coherent system of teacher recruitment, preparation, induction, professional development, compensation and school-design policies that could dramatically close the student achievement gap. As a small nonprofit with big ideas and ambitions to promote a true teaching profession, the Center has worked on a large range of research studies and policy development initiatives designed with the goals of cultivating leadership, spreading expertise and elevating the voices of accomplished teachers so that their knowledge of students and schools can inform the next generation of teaching policies and practices.

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