



NATIONAL BOARD CERTIFICATION: A SUMMARY OF RESEARCH

Following is a summary analysis of key findings from a broad range of studies on the impact of National Board Certification on student achievement and learning, teaching, professional development, and school improvement.

According to the research, there is consensus about the positive effects of the National Board Certification on teaching practices, professional development, and the ability of National Board Certified Teachers to elicit deep learning outcomes in their students. While most research on National Board Certified Teachers' impact on student performance has been positive, some studies have shown mixed effects of National Board Certification.

In addition, research on National Board Certification's effect on teacher retention has been very positive, but more studies need to be conducted to establish the role certification plays in keeping teachers in the field. The research also shows that the impact of National Board Certification is being limited by a lack of awareness among teachers and principals about National Board Certification and the value it brings to schools and classrooms. NBPTS data on National Board Certified Teachers indicate that a majority work in rural and suburban schools with approximately one-third working in schools with students from low-income families.

SUMMARY OF KEY FINDINGS

- **Raising student achievement.** Several major studies find that students of teachers who have achieved National Board Certification perform better on standardized tests and on other measures than students of non-National Board Certified Teachers. In one large-scale study of more than 100,000 student records, Linda Cavalluzzo (2004) finds that students of NBCTs – particularly African-American and Hispanic students – make larger gains in mathematics than students of non-NBCTs. Another study finds that students of NBCTs make learning gains equivalent on average to an extra month in school (Vandevoort, Beardsley, and Berliner, 2004). Furthermore, a study of student achievement by Dan Goldhaber and Emily Anthony (2004) finds that students of NBCTs scored 7 to 15 percentage points higher on year-end tests. These studies also show that that minority students benefit even more from instruction by NBCTs.

However, not all studies are unequivocal in their findings. William Sanders (2005), for example, reports large variations in the impact of NBCTs, which leads him to assert that no significant differences exist between NBCTs and other teachers. His data also reveal that NBCTs account for significant achievement gains for students in some grades and subject areas. Another major study that finds limited impact by NBCTs on achievement also notes that NBCT mentors have positive effects on student achievement gains in the classrooms of the teachers they mentored (Harris and Sass, 2006). Doug Harris and Tim Sass found that students of National Board Certified Teachers performed better than students of non-National

Board Certified Teachers when using the state of Florida's criterion-referenced test, which is tied to state standards and reflects what students are learning, but performed worse than their colleagues when using off-the-shelf norm-referenced tests. The fact that Harris and Sass found different results when using two different types of tests across Florida raises significant questions about which tests are most appropriate in evaluating student achievement gains.

- **Inspiring deeper learning.** Studies show that students with National Board Certified Teachers not only make real gains on standardized tests, but also improve “deep” learning – the kind of higher-order thinking that policymakers and business officials say is needed for future work and learning in a global economy. These studies find that students of National Board Certified Teachers exhibit much better writing abilities and comprehension of classroom material than students of other teachers (Bond et al., 2000; Smith, 2005). The researchers also find that students of NBCTs are twice as likely as students who do not have NBCTs to produce writing samples that use complex ideas and integrate subject matter from multiple disciplines. They specifically link the improved comprehension of NBCTs' students to the lessons and assignments designed by their teachers.
- **Improving teacher practice.** In addition to the research that links National Board Certified Teachers with improved student achievement, a growing body of research finds that NBCTs also demonstrate in-depth knowledge of teaching skills and subject-level content, and routinely seek out educational strategies and materials that better meet students' needs (Ralph, 2003; Dagenhart, 2002; Petty, 2002). Studies also reveal that National Board Certified Teachers tend to perform stronger than non-NBCTs on indicators of teaching expertise and often apply what they learn from the certification process in the classroom (Bond et al., 2000; Lustick and Sykes, 2005). In addition, research shows that NBCTs create more challenging curricula, present subject matter in greater depth, and provide better feedback to students than non-NBCTs (Bond, Smith, Baker, and Hattie, 2000). In national surveys, NBCTs demonstrate greater confidence in their abilities to positively affect student achievement than non-NBCTs (Whitman, 2002), and report that the certification process equips them to create stronger curricula and improves their ability to evaluate student learning (Kowalski et al., 1997, and Rotberg et al., 1998).
- **Creating transformative professional development.** Despite major investments each year in professional development, comparative research on the costs and effectiveness of professional development is scarce. Nonetheless, recent studies show that National Board Certification can improve teachers' practice and is a high-quality form of professional development that costs less than other high-quality professional development options. In 2006, research by David Lustick describes the process of National Board Certification as “transformative” for teachers who achieve certification and for those who do not. Additional research by Lustick and Gary Sykes (2006) demonstrates that the certification process itself improves teacher knowledge and skills in the areas of advancing student learning and supporting teaching and student learning. A 2005 study of cost-effectiveness by Carol Cohen and Jennifer Rice of The Finance Project compares the costs of National Board Certification with other high-quality forms of professional development, such as earning a master's degree, in several different jurisdictions. After comparing fixed costs as well as hidden costs,

they found that National Board Certification is a high-quality and relatively affordable form of professional development.

- **Influence on school improvement through mentoring and other leadership activities.** Research consistently finds that National Board Certified Teachers become highly involved in their schools in ways that can help improve school culture and raise student achievement, and are viewed as helpful by other teachers. A 2001 nationwide survey of NBCTs finds that their new roles include mentoring and coaching others, and developing programs aimed at improving student learning. Based on feedback from almost half of the nation's nearly 5,000 teachers who achieved National Board Certification before 2000, the survey finds that NBCTs are most often involved in mentoring or coaching other candidates for National Board Certification (90 percent), mentoring or coaching new or struggling teachers (83 percent), and developing or selecting programs or materials to support or increase student learning (80 percent). A study, by Sykes and his colleagues (2006), concludes that NBCTs help significantly more teachers in their schools than do non-NBCTs.

In addition, non-NBCTs report that they learn more from these teachers than from non-National Board Certified colleagues. NBCTs also give input on curricular decisions, organize professional development opportunities, chair departments, engage with the community, reach out to parents, and serve as faculty voices to policymakers and other stakeholders (Sykes et al., 2006; Freund, 2005; NBPTS, 2001). Most importantly, research is beginning to indicate that – perhaps as a result of this broad involvement – there may be a definable “spillover” effect in which the presence of NBCTs influences the performance of students in classrooms of non-NBCTs. Harris and Sass (2006), for example, find that NBCTs who are paid to mentor other teachers have significant positive effects on mathematics and reading performance in the classrooms of the teachers mentored by NBCTs.

- **Retaining teachers.** Research is beginning to show that National Board Certified Teachers consider staying in the classroom longer than non-National Board Certified Teachers and gain new enthusiasm for the profession as a result of going through the certification process. Sykes and his colleagues (2006) find highly significant differences between NBCTs and the general teaching population regarding how long they plan to stay in teaching. In Ohio, 52 percent of NBCTs plan to stay in teaching “as long as [they] are able,” compared to 38 percent of non-National Board Certified Teachers. Because teachers leave the profession for a variety of reasons (including factors related to compensation, opportunities for growth, school environment, collegiality and support, and school leadership) some research tracks the impact of National Board Certification on some of the areas that affect longevity in the field. These studies reveal that the vast majority of those who have applied for certification (whether they were ultimately certified or not) report a better understanding of pedagogy, increased opportunities for taking on leadership roles, increased collegiality, and renewed enthusiasm for teaching (Sykes et al., 2006; Lustick and Sykes, 2006; Vandevort, 2004; Jenkins, 2000; Wiebke, 2000).
- **Under-representation of NBCTs in low-performing schools.** Research finds that National Board Certification could have a greater impact if more minority teachers earned certification; if National Board Certified Teachers were more equitably distributed in low-

performing, high-minority, and high-poverty schools; and/or if school leaders used NBCTs more strategically. NBPTS data on National Board Certified Teachers indicate that a majority work in rural and suburban schools with approximately one-third working in schools with students from low-income families. In a 2004 survey of the six states in which the most NBCTs teach, data show that only 12 percent of NBCTs teach in high-poverty schools and fewer than 20 percent teach in high-minority and low-performing schools (Humphrey, Koppich, and Hough, 2004). These researchers also find that even in low-performing schools that have NBCTs, the efforts of the NBCTs may be hampered by school leadership that does not allow them to take on new roles and a teaching culture that does not recognize their expertise. In addition, just as low-performing and minority students are less likely to have an NBCT, minority candidates for National Board Certification are less likely to gain certification (Goldhaber, Perry, and Anthony, 2003).

The National Board and national organizations such as the National Academy of Sciences are convening experts to discuss these issues to help further elucidate what the research shows and provide additional guidance to researchers in measuring the impact of National Board Certification. This impact encompasses not only teacher effectiveness and its impact on student achievement as measured by standardized testing, but also engagement and higher order learning (e.g., complex ideas and the integration of subject matter, writing and analysis) – skills that are critical for success in the global economy.

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