



SCHOOL of  
GRADUATE STUDIES  
EAST TENNESSEE STATE UNIVERSITY

East Tennessee State University  
**Digital Commons @ East  
Tennessee State University**

---

Electronic Theses and Dissertations

Student Works

---

12-2002

# Perceived Barriers to the National Board For Professional Teaching Standards Certification.

Jan Woodard Moore  
*East Tennessee State University*

Follow this and additional works at: <https://dc.etsu.edu/etd>



Part of the [Teacher Education and Professional Development Commons](#)

---

## Recommended Citation

Moore, Jan Woodard, "Perceived Barriers to the National Board For Professional Teaching Standards Certification." (2002). *Electronic Theses and Dissertations*. Paper 710. <https://dc.etsu.edu/etd/710>

This Dissertation - Open Access is brought to you for free and open access by the Student Works at Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact [digilib@etsu.edu](mailto:digilib@etsu.edu).

Perceived Barriers to the National Board For  
Professional Teaching Standards Certification

---

A dissertation  
presented to the faculty of the  
Department of Educational Leadership and Policy Analysis  
East Tennessee State University

In partial fulfillment  
of the requirements for the degree of  
Doctor of Education in Educational Leadership

---

by  
Jannese Woodard Moore  
December 2002

---

Dr. Louise MacKay, Chair  
Dr. Cecil Blankenship  
Dr. Nancy Dishner  
Dr. Russell Mays

Keywords: standards, barriers, certification, educators,  
opinions

## ABSTRACT

### Perceived Barriers to the National Board For Professional Teaching Standards Certification

by

Jannese Woodard Moore

Since its conception in 1987, much money and effort have been expended establishing the National Board for Professional Teaching Standards. Although 16,038 educators in 45 states and the District of Columbia have obtained National Board Certification, there are over 1,200 teachers in the East Tennessee counties of Cocke and Sevier who are eligible for National Board Certification but have not obtained this certification. This study sought to identify the barriers that discouraged this population from attempting to gain National Board Certification.

The research design was inferential and utilized data from a survey instrument constructed by the researcher. A pilot test of the instrument was conducted, reliability coefficients calculated, and survey items retained, modified, or deleted based on the results. The final survey contained 38 statements (grouped into five subscales) and a demographic section. Seven hundred surveys were sent to eligible educators in the public schools of Cocke and Sevier counties; of those, 459 were returned and 448 responses were usable. Other variables studied were age, gender, teaching assignment, years of teaching experience, education level attained, future plans to attempt, not attempt, or unsure about attempting National Board Certification, informational sources, and overall opinions of the National Board for Professional Teaching Standards. In addition, a space was provided for comments.

Findings included: The most problematic barriers from greatest to least were personal obstacles, teaching professionalism, teacher morale, evaluation process, and financial considerations. Significant differences regarding the barriers existed in all demographic areas included in the study except for educational levels, and the majority of respondents had a negative overall opinion of National Board Certification. However, the opinion varied with the source of information about the process. Educators who received their information from local administrators and published materials had a more positive opinion than those that received their information from peers. This study indicates that the barriers identified are factors in keeping eligible East Tennessee educators from attempting National Board Certification.

## ACKNOWLEDGEMENTS

In appreciation to:

- ...Dr. Cecil Blankenship, Dr. Nancy Dishner, Dr. Louise MacKay, Dr. Russell Mays, and Dr. Russ West, who each provided special guidance and expertise
- ...Jim Moore, my nearest and dearest spouse extraordinaire
- ...my children, Caleb and Cady, who displayed the courage of support
- ...my parents, Walter W. and Elizabeth J. Woodard, who encouraged me to practice the art of lifelong learning
- ... Richard and Peggy Moore, my mother-in-law and father-in-law, who always responded instantly when I needed assistance
- ...the members of the Sevier Cohort who exemplified excellence and who taught me the meaning of true friendship
- ...The Delta Kappa Gamma Society International who awarded me a scholarship and provided a network of support
- ...The Target Corporation for supporting education and awarding me with their Target Teacher Scholarship

# CONTENTS

	Page
ABSTRACT.....	2
ACKNOWLEDGEMENTS.....	3
LIST OF TABLES.....	7
Chapter	
1. INTRODUCTION.....	9
Statement of the Problem.....	11
Purpose of the Study.....	11
Research Questions.....	12
Significance of the Study.....	12
Limitations.....	13
Assumptions.....	13
Definitions.....	14
Methodology.....	14
Overview of the Study.....	15
2. REVIEW OF RELATED LITERATURE.....	17
Teacher Quality.....	17
Standards.....	23
Accountability.....	28

Chapter	Page
National Board for Professional Teaching Standards.....	31
Summary.....	36
<b>3. METHODOLOGY AND PROCEDURES.....</b>	<b>39</b>
Research Design.....	39
Hypotheses.....	39
Procedures.....	40
Population.....	42
Sample.....	42
Sampling Method.....	43
Measurement of Variables.....	44
Data Analysis.....	47
<b>4. PRESENTATION AND ANALYSIS OF DATA.....</b>	<b>49</b>
Respondents.....	49
The Survey Instrument.....	51
Survey Statement Responses.....	55
Hypothesis Testing.....	55
Hypothesis Testing Results.....	56
Research Questions.....	72
Summary.....	75

Chapter	Page
5. DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS.....	77
Discussion of Findings.....	78
Conclusions.....	85
Recommendations.....	91
REFERENCES.....	94
APPENDICES.....	100
Appendix A: National Board for Professional Teaching Standards Survey.....	100
Appendix B: Cover Letter for Cocke and Sevier Counties Survey.....	104
Appendix C: Formula for Determining Sample Size.....	105
Appendix D: Pilot Study Cover Letter and Instrument.....	106
Appendix E: Reverse Coded Statements and Table 4.....	110
VITA.....	115

## LIST OF TABLES

Table	Page
1. Total Response Rates By County.....	50
2. Usable Response Rates By County.....	51
3. Demographic And Informational Frequency Data.....	53
4. Mean Scores After Reverse Coding.....	114
5. Anova Results For Hypothesis One: Differences In Perceived Barriers Between Those Who Plan To Attempt National Board Certification, Those Who Do Not, And Those Who Are Unsure....	58
6. Anova Results For Hypothesis Two: Differences In Perceived Barriers Between Those 25-34 Years Old, Those 35-44 Years Old, And Those Who Are 45 And Older.....	60
7. Results Of t-test For Hypothesis Three: Differences In Perceived Barriers Between Males And Females.....	62
8. Anova Results For Hypothesis Four: Differences In Perceived Barriers Between Those In Different Teaching Assignments.....	64
9. Anova Results For Hypothesis Five: Differences In Perceived Barriers Between Educators With 3-11 Years Experience, Those With 12-20 Years Experience, And Those With 21 Years Or More.....	66
10. Anova Results For Hypothesis Six: Differences In Perceived Barriers Between Those With Different Education Levels.....	68
11. Results Of t-test For Hypothesis Seven: Differences In Perceived Barriers Between Educators Who Agreed That The Principal Encouraged Participation In National Board Certification And Those That Disagreed.....	70

Table	Page
12. Results For Hypothesis Eight: Summary Of Chi-Square Test Of Independence For Opinions Of National Board Certification By Source Of Information Regarding The Program.....	72
13. Results To Question Five: Summary Of The Level Of Awareness Of The National Board Certification Process.....	73
14. Results To Research Question Six: Summary Of Overall Opinions Of The National Board For Professional Teaching Standards.....	74
15. Results For Research Question Seven: Hierarchial Summary Of Mean Barrier Subscale Scores.....	75

## CHAPTER 1

### INTRODUCTION

The new millennium brings with it a focus toward strengthening teaching for the purpose of improving student learning. In virtually all schools, standardized test scores are used to decide how well the school is doing and the extent to which teachers are doing their job. The results often are published so that everyone knows which schools are moving ahead and which schools are falling behind. Woe to the students and teachers who have declining scores (Curtiss, 1998). Parents, community members, legislators, governors, and policy makers increasingly hold administrators and teachers accountable for improving learning and test scores.

Conventional wisdom asserts that with improved curriculum and courses will come improved student achievement. However, this focus is shifting to the individual teacher. “The emphasis on performance has been spurred by a realization among policy makers that changes in curriculum and courses have not significantly increased student achievement. The number one factor in enhancing student learning is the capability of the teacher” (Wise, 1998, p. 1). According to a report issued by the National Commission on Teaching and America’s Future (1996), researchers discover again and again that teacher expertise is one of the most important factors in determining student achievement.

However, recognizing quality teaching has proven to be a complex art. The teaching profession, unlike medicine, architecture, or accounting, has never codified the

knowledge, skills, and dispositions that account for accomplished practice (Shapiro, 1995). In the past decade, several education organizations have tried to address the relationship between student achievement and teacher excellence. One of these, the National Board for Professional Teaching Standards, promised to provide a definitive set of high and rigorous standards for what accomplished teachers should know and be able to do as well as a way to measure who meets those standards (The National Board for Professional Teaching Standards, 1994).

The National Board for Professional Teaching Standards project is funded in part with grants from the United States Department of Education and the National Science Foundation. However, in May 1998, according to House Committee on Education and the Workforce Chairman Bill Goodling (R-PA), the National Board for Professional Teaching Standards is a failure (Hettinger, 1998). The committee voted to strip the National Board for Professional Teaching Standards of its proposed \$18.5 million in 1998 federal funds. In August 1998, after much discussion, the House of Representatives and the Clinton administration reached an agreement to preserve federal funding for the National Board for Professional Teaching Standards.

Surrounded by controversy, the National Board for Professional Teaching Standards continues to promise to help elevate the status of teaching by identifying teachers who work under clear and objective standards and demonstrate their accomplishments on challenging sets of assessments, much as other professions such as physicians, accountants, and architects are purported to do (National Board for Professional Teaching Standards, 1998). The National Board for Professional Teaching

Standards offers a certification process that is voluntary and signifies highly accomplished teaching based on a specific set of professional criteria. The standards are uniform across the country and were developed by educators, for educators. The certification is awarded only to those who pass a series of performance-based assessments, involving both on-site and assessment center activities (Shapiro, 1995). By the end of the year 2001, 16,038 teachers in 45 states and the District of Columbia had earned National Board Certification (National Board for Professional Teaching Standards, 2001). More than 17,564 teachers nationwide have expressed interest in seeking certification in 2002 (Reading Today, 2001).

#### Statement of the Problem

Since its conception in 1987, much money and effort have been expended establishing the National Board for Professional Teaching Standards. In East Tennessee, however, a majority of the teachers eligible to apply have not attempted National Board Certification. There has been no systematic attempt to determine the reasons why more eligible teachers in East Tennessee do not attempt to gain National Board Certification.

#### Purpose of the Study

The purpose of this study was to identify the barriers, as perceived by eligible teachers in East Tennessee, that discourage this population from attempting to gain National Board Certification. This study also considered the relationships between demographic data and the perceived barriers.

## Research Questions

The research questions to be answered in this study were:

1. Does identification of the barriers to participation in National Board Certification differ among respondents who plan to attempt National Board Certification, those who do not, and those who are unsure?
2. Does identification of the barriers to participation in National Board Certification differ according to the age, gender, teaching assignment, number of years teaching experience, and educational level of the respondents?
3. Does identification of the barriers to participation in National Board Certification differ according to the perceived level of principal support?
4. Is the respondents overall opinion of the National Board for Professional Teaching Standards independent of their source of information concerning the National Board?
5. What do the respondents consider their level of awareness concerning the National Board Certification process?
6. Do the respondents have an overall opinion of the National Board Certification program that is negative or positive?
7. Which barriers are most problematic to respondents?

## Significance of the Study

The rationale for advanced teacher certification has been that as states raise academic standards for students, teacher education and certification should vary

directly with those standards (Chase & Gross, 1999). The benefits and problems of rigorous teacher certification mechanisms have been presented on a consistent basis in current literature (Ebmeier, Twombly, & Teeter, 1991; Ravitch, 1998; Riley, 1998). Certification has come under particular scrutiny because of the public demand for more diligent standards (Olson, 1999). It will be very important to determine the factors that prevent teachers from pursuing professional growth through advanced certification status. Additionally, a more thorough comprehension of these factors may encourage a higher level of attempted participation in National Board Certification. Educational administrators and state department officials can provide more vigorous encouragement to eligible teachers through a better understanding of these identified barriers.

### Limitations

1. The participants in this study were limited to cluster sampling by school. The participants were eligible K-12 teachers in public schools in two counties of East Tennessee.
2. The identification of barriers to National Board Certification was limited to surveys validated and developed by the researcher and dependent upon the free will of the participants to respond.

### Assumptions

1. There are identifiable barriers to National Board Certification that are perceived by eligible teachers in East Tennessee.

2. The participants chosen by cluster sampling by school are representative of the total population of eligible teachers in two counties of East Tennessee.
3. National Board Certification is a worthwhile process.

### Definitions

The following definitions applied to this study:

National Board for Professional Teaching Standards - An independent, nonprofit, nonpartisan organization governed by a 63 member board of directors consisting of classroom teachers, school administrators, school board leaders, governors, state legislators, higher education officials, teacher union leaders, and business and community leaders (The National Board for Professional Teaching Standards, 2001).

National Board Certification - A document granted to an eligible teacher that identifies the teacher as having met standards that communicate what accomplished teaching looks like (The National Board for Professional Teaching Standards, 1998).

Eligible Teacher - An eligible teacher is a K-12 teacher who has met the requirements of the National Board for Professional Teaching Standards to attempt certification (The National Board for Professional Teaching Standards, 1994).

Perceived Barriers - Perceived barriers are conditions that are thought to hinder or prevent an action from taking place (American College Dictionary, 1963).

### Methodology

The following procedures were followed:

1. Experts on the subject of the National Board for Professional Teaching Standards were contacted and interviewed concerning their knowledge of the history of National Board Certification in East Tennessee and their views on the limited participation of the teachers in the National Board for Professional Teaching Standards Certification process.
2. The population studied was identified through the Tennessee State Department of Education and school administrators.
3. A random sample of 10 teachers in East Tennessee eligible for National Board Certification was drawn and a survey developed and administered to them as a pilot. The pilot test survey was used to insure the reliability of the primary survey concerning barrier factors.
4. The revised survey was administered to a suitable sample of the population to be studied.
5. A list of perceived barriers was identified and common factors recognized.
6. Based on the common factors, subscales scores were compared between demographic subgroups. Conclusions and recommendations were made in Chapter 5.

#### Overview of the Study

This study is organized into five chapters. Chapter 1 includes the introduction, statement of the problem, research questions, significance of the problem, assumptions, limitations, definitions, and an overview of the study.

Chapter 2 is a presentation of a review of selected literature and research relevant

to the problem including teacher quality, standards, accountability, and the National Board for Professional Teaching Standards. Chapter 3 includes a description of the methodology and procedures used in the study. Chapter 4 contains the statistical treatment and analysis of the data. Chapter 5 includes the summary, findings, conclusions, and recommendations for practice and further research.

## CHAPTER 2

### REVIEW OF THE RELATED LITERATURE

This chapter provides a review of the literature relevant to the National Board for Professional Teaching Standards Certification and is divided into five sections: Teacher Quality, Standards, Accountability, National Board for Professional Teaching Standards, and Summary.

#### Teacher Quality

In the early 1980s there was increased interest in spotlighting teacher quality due to various educational reports that received a great deal of publicity. As reported by Calhoun and Protheroe (1983), recommendations dealing with the quality of teaching were addressed in prominent reports such as *A Nation at Risk* published in 1983 and the *Twentieth Century Fund Task Force Report* which was published in 1982. Others included *Action for Excellence*, the 1985 report of the Task Force on Education for Economic Growth of the Education Commission of the States, *Educating Americans for the 21<sup>st</sup> Century*, the 1983 report of the National Science Board, *High School: A Report on Secondary Education in America*, reported by the Carnegie Foundation in 1986, and Goodlad's study, *A Place Called School*, published in 1984. Authors of all these reports pointed out the importance of exemplary teachers in creating an effective learning environment and called for a system to recognize excellent teachers (Mickler, 1987). More recently, in his 1997 State of the Union Address, President Clinton issued a

“Call to Action” that included as a priority improving the quality of teachers in every American classroom. President Clinton’s speech reflected growing concern over the condition of education and the nation’s need for excellent teachers (Lewis, Parsad, Carey, Bartfai, Farris, & Simerdon, 1999). The nation’s educational system must provide students with the knowledge, information, and skills needed to compete in a complex international marketplace. Good teachers are the hallmark of such an educational system; they are integral to a student’s intellectual and social development (Lewis et al., 1999). Sanders and Rivers (1996) underscored the dramatic effects that teachers have on student performance. Their research indicates that when students have poor quality teachers they may never recover.

Teacher quality is a complex phenomenon, and there is little consensus on what it is or how it should be measured (Lewis et al., 1999). For example, definitions range from a focus on what should be taught and how knowledge should be imparted to a focus on the training and knowledge a teacher should possess. There are, however, two broad elements that most observers agree characterize teacher quality: (a) teacher preparation and qualifications and (b) teaching practices. The first refers to preservice learning (e.g., postsecondary education, certification) and continued learning (e.g., professional development, mentoring). The second refers to the actual behaviors and practices that teachers exhibit in their classrooms (Ingersoll, 1996a). Of course, these elements of teacher quality are not independent of each other. Excellent teacher preparation and qualifications should lead to excellent teaching behaviors and practices. Growing concern that a number of the nation’s teachers are underqualified to teach students has

focused attention on their preservice learning. For example, concern regarding preservice learning has been directed toward teachers' postsecondary degrees, that is, the idea has been expressed that teachers, particularly secondary teachers, should have an academic major rather than a general education degree (Ravitch, 1998). In addition, certification policies have drawn criticism--specifically, that a growing number of the nation's teachers are entering classrooms with emergency or temporary certification (Riley, 1998). Finally, attention has been increasingly directed toward teaching assignments—teachers' being assigned to teach subjects that do not reflect their training or education (Ingersoll, 1996b).

Teachers' professional preparation (as well as their work environment) has been identified as fundamental to improving elementary and secondary education (National Commission on Teaching and America's Future, 1996). At the core of education reforms to raise standards, reshape curricula, and restructure the way schools operate is the call to reconceptualize the practice of teaching. The basics for a good public educational system are in place. But the bar has been raised: good is no longer good enough (Rose, 1999). Teachers have acknowledged this fact by admitting that, in many important regards, they do not feel themselves to be well prepared to teach. According to the *Teacher Quality* report:

Less than half of the teachers interviewed felt "very well prepared" to implement new teaching methods. About a third felt very well prepared to implement curriculum and performance standards, and fewer felt adept at using student performance assessment techniques. Only about a fifth of teachers felt very well prepared to integrate educational technology or to address the needs of students with disabilities, those with limited English proficiency, or those from diverse cultural backgrounds. (Teacher Quality, 1999, p. 12)

In order to address shortcomings perceived by teachers themselves, high quality teachers must be capable and willing to continuously learn and relearn their methodology. Professional development and collaboration with other teachers are strategies for building educators' capacity for effective teaching. However, traditional approaches to professional development (e.g., workshops, conferences) have been criticized for being relatively ineffective because they typically lack connection to the challenges teachers face in their classrooms (Lewis et. al., 1999). Research suggests that unless professional development programs are carefully designed and implemented to provide continuity between what teachers learn and what goes on in their classrooms and schools, these activities are not likely to produce any long-lasting effects on either teacher competence or student outcomes (Fullen & Stiegelbauer, 1991).

In addition to improved professional development programs, teachers must spend more time in professional development and collaborative activities. Teachers assert that the greater the amount of time invested in a practice to improve teaching, the greater the benefits (Jennings, 1999). A 1998 survey by the National Center for Education Statistics indicated that:

Teachers who spent more than 8 hours in professional development on in-depth study in the subject area of their main teaching assignment were more likely than those who spent 1 to 8 hours to report that participation in the program improved their teaching a lot (41 percent versus 12 percent). Teachers who participated in common planning periods for team teachers at least once a week were more likely than those who participated a few times a year to report that this participation improved their teaching a lot (52 percent versus 13 percent). (Teacher Quality, 1999, pp. 5-6)

Extended professional development, long-term mentoring, and extensive sessions for

common planning among teachers are the ingredients that will result in quality teaching for students (Jennings, 1999).

Policymakers say that some of the blame for problems in the profession must go to the universities and colleges that prepare most of the teaching force. Tennessee Senator Andy Womack, Democrat, who chaired the Senate Education Committee, addressed the following concern:

We've tried through persuasion to ask higher education to review its teacher-training programs. We don't feel it's appropriate to specify how certain courses should be taught at the university level, but we do feel higher education has not responded as quickly as it should have to changing teaching. (Quality Counts 2000, 2000, p. 153)

According to Bradley (1999), Wise, President of the National Council for Accreditation of Teacher Education, also pointed to higher education when he proposed his strategy for improvement. He called for higher education to get the education job done right by adequately preparing teachers the first time around.

The perception held by many teacher educators is that the commitment of colleges and universities to education programs is weak and that funding for education lags far behind that of other disciplines (Bowden, 1980; Hample, 1980; Walters, 1981). Ebmeir, Twombly, and Teeter (1991) examined the comparability and adequacy of financial support for schools of education at six research institutions. They found that "schools of education do not hold a favorable position in the research university" (p. 226). Not only did education lag in funding behind nearly all other professional or academic programs at the universities studied, education schools had actually lost ground in comparative funding during the 10 years of the study. Research conducted by Howard, Hitz, and

Baker (1997) also indicated that the faculty and administrators who staff and teach in the education programs in colleges and universities across the nation, in general, are not compensated for their efforts at levels equal to those of their academic colleagues in other disciplines. At the bottom rung of the education school's own ladder of prestige are those who actually train teachers (Merrow, 2000).

Many schools, colleges, and departments of education have argued that an increase in faculty salaries and in expenditures per student credit hours is needed to ensure high-quality teacher education programs (Howard et al., 1997). However, there is a lack of consensus in the field of teacher education about what constitutes quality. The consensus about the definition of quality in most other professions is greater than that in education, as evidenced by the acceptance of accreditation (Ebmeier et al., 1991). Other professional schools and programs such as engineering, nursing, medicine, law, and architecture rely on standards applied through national professional accreditation as the single accepted means to define their professions and what it takes to educate a high-quality professional (Howard, Hitz, & Baker, 1997). In most of the major professions candidates must first graduate from an accredited university or college program before they can be considered for licensure. As a consequence, nearly all recognized professional programs in higher education are accredited through a recognized national professional accrediting body (Murray, 2000). This is not the case in education. Many schools, colleges, and departments of education (40 % to 50 %, including some at major universities) choose not to pursue national accreditation through the National Council for Accreditation of Teacher Education (NCATE), currently the only approved accrediting

body for teacher education (Howard et al., 1997).

It has been recommended in *What Matters Most* (National Commission on Teaching & America's Future, 1996) and by Wise (1998), President of the National Council for Accreditation of Teacher Education, that the first step toward ensuring quality teachers is to require that every teacher candidate must first graduate from an accredited program before being considered for a teaching license. The second step calls for state and local education authorities to cease issuing emergency credentials to individuals who are not qualified to teach (Bradley & Archer, 1998). In districts where conditions are rough and the pay is low, schools often end up getting the lower quality teachers. The new teachers are hired with emergency or alternative credentials that allow them to teach without teacher training or an education degree. Emergency and alternative certification programs often bring young graduates or talented career-changers into teaching. Some praise the teachers' diversity, energy, and fresh perspective (Basinger, 1998; Kopp, 1999). But, according to Feldman (1998), president of The American Federation of Teachers, the people who enter teaching by way of emergency or alternative certification are often clueless about how to teach. Programs like these do not address the issue of teacher quality. They may actually lower the standards, which may be the greatest challenge facing public schools in this new millennium (Chase, 2000).

### Standards

Policymakers have spent the better part of the past decade setting standards for what children should know. Currently, 40 states have established academic standards in

all core subjects. Now, despite a growing backlash, they are beginning to turn their attention toward teacher standards. Twenty states have adopted standards for what beginning teachers should know and be able to do (Olson, 1999).

There have been clear problems with the process of standards from the start. Everyone seems to have a different definition of the term “standards” (Porter, 1993). Many state legislators see standards as the means for improving all components of the educational system. At the same time, many educators view standards primarily as a threat, as external controls aimed at dictating or controlling practice (Yinger & Hendricks-Lee, 2000). Yinger (1987), called for a move beyond the political tug-of-war the standards are perceived to have created and to recognize standards as a powerful tool in the development of teaching as a profession. He offered the following insight:

The key to successful professionalization of any practice is to convince clients and the public that a professional, as a result of education and practical experience, possesses unique knowledge and skills that can be employed to solve the particular problems of practice and thus serve client needs. This “legitimization” process depends greatly on a profession’s ability to create a body of useful abstract knowledge that can be effectively converted to particular solutions in particular contexts. For this knowledge base to be created, a discourse language must be created that connects abstract knowledge and theory to the demands and realities of practice. Research and knowledge-based standards can serve in this manner by creating a shared and public “language of practice” that not only describes how knowledge is used in practice but also becomes a vehicle for testing and elaborating the components of professional activity. Standards, when used in this manner by a developing profession, thus become a means to development and empowerment, not merely a means of external control. (pp. 294-295)

From the public and political point of view, standards promise a quick and efficient way to identify and rectify what is wrong with schools, teachers, and higher education. The appeal of standards is that they express simple, desirable statements of goals and outcomes (Silber, 1999). The use of standards is familiar and has proven to be

an effective quality control strategy in other settings including manufacturing, business, and other professions. Consumers clearly understand the meanings of a warranty, a guarantee, and a service contract. Professional standards imply similar commitments (Yinger & Hendricks-Lee, 2000).

However, standards imply a perceived threat to educators. Teaching and learning are complex endeavors contingent on many factors outside the control of schools and educators. On one hand, research-based teaching practice does not automatically result in high student achievement. On the other hand, recent, large-scale research studies suggested that teacher preparation, ability, and experience account for more variation in student achievement than any other school factor (Ferguson, 1991; Greenwald, Hedges, & Laine, 1996; Sanders & Rivers, 1996).

In addition, support can be found in the research for the positive impact implementing standards has on a given system and its students. Standards serve to improve student achievement by clearly defining what is to be taught and what kind of teacher performance is expected. Controlled studies measured the effect of simply relaying this clear expectation to students in a control group. Student achievement increased from 10 % to 35 % when content standards and teacher performance were clearly stated and reinforced (Marzano & Kendall, 1996). Standards can help to create high expectations for students and teachers and accountability for those standards. A trait of a successful organization of any kind is the presence of high expectations for performance (Office of Educational Research and Improvement, 1996).

The current movement toward standards for teachers began as a response to the

harsh criticism of education in the early 1980s. The Carnegie Forum on Education and the Economy (1986) aimed to remedy the dire state of American education described by the National Commission on Excellence in Education (1983) by proposing high and rigorous standards for teachers. In 1987, the National Board of Professional Teaching Standards was established to identify, describe, and provide assessment parameters for accomplished teaching (National Board for Professional Teaching Standards, 1994). Also in 1987, the Council of Chief State School Officers sponsored the formation of the Interstate New Teacher Assessment and Support Consortium (INTASC) to facilitate collaboration among states engaged in rethinking initial teacher certification and licensure. A year earlier, the Holmes Group, a consortium of nearly 100 research universities involved in teacher education, was established to address concerns about the quality of teacher education and development (Archibold, 1998). The recommendations of the Holmes Group, presented in *Tomorrow's Teachers* (1986), called for standards-based accreditation of teacher education.

By the mid 1990s, the work of each of these groups revealed a growing consensus nationally about what teachers should know and be able to do. Expectations for teacher knowledge and performance were identified and aligned to form a coherent and consistent continuum for teacher development from preservice preparation, including the design of teacher education programs, through advanced certification (Archibold, 1998). Teachers, teacher educators, school administrators, and other professional organizations including teacher unions participated in the creation of the standards. The widespread support of these standards came from the teaching profession itself as well as from

governmental and philanthropic organizations (Yinger, 1999).

Taking teaching and standards seriously forces the teacher to interpret classroom interaction “in terms of”; that is, standards present a conceptual framework and a language that must be rectified to classroom life (Moss & Schutz, 1999). Research-based standards are not easily dismissed. Knowledge and thought become more explicit in a standards-based environment, that provides a platform for reflection, discourse, and improvement between and among novice as well as experienced teachers. Teacher educators and practitioners must learn to conceive, to describe, and to assess their work in terms of emerging standards (Yinger & Hendricks-Lee, 2000).

As education moves into a new decade, the focus on standards is not so much on conception or articulation but rather on the evidence we have about whether the standards have been met. Overwhelmingly research indicates:

There is, in fact, very little substantive difference in the written standards for teacher education advocated by the major reform groups. The writing and pronouncement of standards, although time consuming and tendentious, turn out to be the easier, less expensive part of a reform. The harder part is finding solid evidence that indicates that standards have been met, exceeded, or failed. (Murray, 2000, p. 1)

In 1996, governors, chief executive officers, and educators gathered in Palisades, New York to launch a three-pronged effort to rejuvenate public schools. Each state was to set high standards for its students and teachers. The students would then be tested on a regular basis, and students, teachers, and schools would be held accountable for the results. “Standards and accountability” was the mantra (Gergen, 1999).

## Accountability

According to Elmore, a professor at Harvard University's Graduate School of Education, accountability is one of the two or three--if not the most--prominent issues in policy at the national, state, and local levels right now. Currently, 48 states now test their students and 36 publish annual report cards on individual schools (Olson, 1999). One does not have to look far to see that accountability is here to stay. On January 8, 2002, President George W. Bush signed the most far-reaching federal education bill in nearly four decades; a \$26 billion plan to broaden academic testing, triple spending for literacy programs, and help for children to escape from America's worst public schools (Fournier, 2002). A major rationale for all this testing is that it will force schools to be accountable. However, the idea that schools are not or have not been accountable has become a modern myth according to many professional researchers (Tingley, 1999).

McGregor was several decades ahead of his time in taking a critical look at performance appraisal procedures both in industry and education. He stated:

The conventional approach (to performance appraisal), unless handled with consummate skill and delicacy, constitutes something dangerously close to a violation of the integrity of the personality. (as cited in Kindall, 1969, p. 622)

In historical perspective, millenniums before McGregor spoke, the ancient philosophers had thoughts on accountability and performance appraisal. Aristotle, in describing the evaluation of public officials in Athens, said:

Appointment to office by means of a lot...was safeguarded at Athens in three ways—first, by a formal test of fitness before entry on office...secondly, by a vote in the assembly...thirdly, by a scrutiny at the end of the tenure of office. (as cited in Hughes & Watkins, 1972, p. 159)

Plutarch cautioned parents not to leave the training of their children entirely to a hired teacher but to test the children themselves occasionally. Socrates, it will be recalled, “was accountable unto death” for his teachings (Morris, 1971).

In theory, accountability sounds wonderful; take responsibility for one’s actions, focus on results, and reap or rue the consequences. In reality, it raises a host of serious challenges for states that focus their efforts to design workable accountability systems. Tennessee, Texas, and North Carolina seem to come closest to meeting the call for an education system that recognizes performance and excellence rather than seniority or level of education (Olson, 1999). In Tennessee, the Value-Added Assessment System (TVAAS) generates information on the performance of each teacher’s students that principals may use, if they choose, in recommending professional development. In Texas, districts are required to take student performance into account when evaluating teachers. Under the Professional Development and Appraisal System, a portion of each teacher’s evaluation is based on the school’s performance (Bradley, 1999). North Carolina’s ABC’s of Public Education law allows the state to revoke teachers’ licenses based on poor student performance (Bradley). According to Bonsting (1992), America’s imperative is to commit to high performance in the products of schools and industries. With the year 2002, that commitment has manifested into the broadest educational reform in nearly 40 years. Currently, under President Bush’s education bill, all states must develop annual report cards comparing each school’s tests scores to national standards. Schools that fail to improve for six years could have staff changes forced upon them (Toppo, 2001). As new and far-reaching plans for improvement of

America's educational system emerge, controversy remains a constant in the area of accountability.

In recent years, educators have often been pressured by people outside the educational system to use quantitative goals and highly structured teacher educational systems. Unclear accountability leads to divisiveness (Deming, 1988). Although there is a growing consensus among lawmakers and educators that some form of accountability is necessary to infuse public education with more credibility, the accountability process itself has caused much debate.

While the public pushes for a number of high-stakes measures to increase accountability, teachers do not. This is according to a nationally representative survey conducted by the New York City – based research organization Public Agenda in connection with Quality Counts '98 (Olson, 1999). Among the findings of the survey:

Seventy-seven percent of employers and 70 % of parents think it's a good idea to have principals work under contracts that could be terminated if their schools failed to reach specific goals. In contrast, 64 % of teachers say that's a bad idea. Sixty-six percent of employers and 62 % of parents support overhauling persistently failing schools. But 68 % of teachers disagree. Sixty percent of employers and 53 % of parents believe it's a good idea to tie student performance to financial incentives for teachers and principals. But 76 % of teachers do not. (Olson, p. 10)

Designing a system that requires accountability without alienating good teachers has become a challenge. But just about everyone agrees that teachers must be on board for accountability to work (Gorman, 1999; Urbanski & Erskine, 2000). One problem appears to be that teachers do not trust the measures being used (Public Agenda, 1999). Yet, unless teachers believe that the criteria and processes employed in state

accountability systems are legitimate, fair, consistent, and understandable, such accountability measures are likely to drive out good teachers. It is no coincidence that the best teachers are often the most frustrated by tough accountability systems, and they are the ones most likely to leave (Janofsky, 1999). In the past decade, several education organizations have tried to meet that challenge of keeping the nation's strongest highest-performing teachers in the classroom (Kelly, 1999). One of these is the National Board for Professional Teaching Standards.

#### National Board for Professional Teaching Standards

The National Board for Professional Teaching Standards (NBPTS) is an independent, nonprofit, nonpartisan and non-governmental organization governed by a board of directors. The majority of its 63 board members are classroom teachers. Other directors include school administrators, school board leaders, governors and state legislators, higher education officials, representatives from teachers' unions and disciplinary organizations, and business and community leaders (National Board for Professional Teaching Standards, 2001). It was established in 1987 at the recommendation of the Carnegie Task Force on Teaching as a Profession. The impetus for their work came in 1983 from the follow-up report to *A Nation At Risk*. Published in 1986 and entitled *A Nation Prepared: Teachers of the 21<sup>st</sup> Century*, the recommendations therein called for an advanced certification process for accomplished teachers (Carnegie Forum on Education and the Economy, 1986).

The mission of the National Board for Professional Teaching Standards is:

...to establish high and rigorous standards for what accomplished teachers should know and be able to do, to develop and operate a national voluntary system to assess and certify teachers who meet these standards, and to advance related education reforms for the purpose of improving student learning in American schools. (National Board for Professional Teaching Standards, 1994, p. 29)

Key to the mission statement is the word voluntary. National Board Certification is strictly voluntary and designed to complement, not replace, existing state licensure (Shapiro, 1995). While state licensing systems set requirements to teach in each state, National Board Certification establishes high and rigorous advanced standards for experienced teachers to demonstrate accomplished practice. It is available to all teachers who hold a baccalaureate degree, have taught for a minimum of three years, whether in a public or private school, and have held a valid state teaching license for those three years (National Board for Professional Teaching Standards, 1998). A National Board Certificate is valid for 10 years. It is currently available in 23 fields and an additional six standards reports are under development (National Board for Professional Teaching Standards, 2001). In the first five years of the assessment, 4,217 teachers nationwide applied for National Board Certification, with a certification rate of 44%. In the 1998-99 school year, 5,400 teachers completed the assessment; 49% received certification (Rotberg, Futrell, & Holmes, 2000).

The work required of teachers who apply typically takes place over most of a school year. Teachers estimate that they spend about 120-200 hours on the process, which consists of two major parts (Tennessee State Department of Education, 2001). In the first part teachers must demonstrate their knowledge and skills through a series of performance-based assessments. Teachers must submit four portfolio entries based on

National Board standards, which include student work products, videotapes of teaching, examples of work with students' families and community, and collaboration with the professional community. Each component is accompanied by a written analysis (National Board for Professional Teaching Standards, 2001). Teachers prepare the portfolio at their own pace, usually over the course of several months.

The second part of the certification process probes the depth of their subject-matter knowledge and their understanding of how to teach those subjects to their students. This evaluation is in the form of written exercises and takes place at one of the National Board's assessment centers, which are located throughout the country. Teachers spend a day at a center, where they are required to respond to six 30-minute assessment center prompts. Teachers are evaluated on both parts of the assessment to determine whether they are qualified for National Board Certification (Tennessee State Department of Education, 2001).

Achievement of National Board Certification provides a professionally credible recognition of accomplished teaching (National Board for Professional Teaching Standards, 1994). It is a symbol of professional teaching excellence. It was created so that teachers could achieve distinction by demonstrating through a demanding performance assessment that they meet high and rigorous standards for what accomplished teachers should know and be able to do. Although new to the teaching profession, the concept of advanced certification is found in other professions such as medicine and accounting. Numerous challenges faced the National Board for Professional Teaching Standards' founders as they worked to create a similar process for

teachers. Coalitions were formed with organizations whose members had rarely, if ever, collaborated with one another in the past (Kelly, 1999). The advanced certification process required substantial and sustained investment in research and development. Development of a fair, valid, and reliable assessment of teaching required complex technologies not currently used in any field (National Board for Professional Teaching Standards, 1994). Perhaps the most significant challenge that faced the founders was the attitudinal and cultural changes needed within the teaching profession for National Board Certification to take root (Rotberg, Futrell, & Lieberman, 1998).

However, many of the most hardened skeptics were caught up in a shared vision. Many constituencies took an active part in the National Board for Professional Teaching Standards' work, including teachers and their organizations, administrators, professors and deans from teacher preparation programs, policy makers, business leaders, and parents (Helms, 1999). Teachers constituted the majority on every committee, on every task force, and on the National Board for Professional Teaching Standards board of directors. Standards for the profession were developed by committees made up of a majority of classroom teachers and by other acknowledged experts in the disciplinary fields (Siciliano, Jurs, Ashby, & Weibke, 1999). For the first time, teachers had an opportunity to evaluate their own performances against high standards developed by their peers and accepted as representative of truly accomplished teaching.

As the system of National Board Certification unfolds across the country, support comes from Democratic and Republican governors and legislators, state and local school boards, the nation's two largest teachers' unions, teacher educators, education

organizations, and classroom teachers (National Board for Professional Teaching Standards, 2001). Incentives for National Board Certification are provided at the local level in more than 200 school districts or through statewide programs funded by other sources. As of May 2001, 48 states, including the District of Columbia, enacted legislative and policy action creating incentives and recognition for National Board Certification. Thirty-one of those states offer multiple incentives that provide financial support and use National Board Certification to permit greater inter-state mobility for accomplished teachers. These incentives may include full or partial payment of the \$2,300 certification fee, license portability, licensure renewal, continuing education units, and expanded roles for teachers (National Board for Professional Teaching Standards, 2001). National Board Certification has also had ripple effects on teacher preparation programs and, in some cases, has resulted in school district partnerships with colleges of education (Browne, Auton, Freund, & Futrell, 1999).

Not everyone, however, has voiced support for the National Board for Professional Teaching Standards. In 1998, largely due to low teacher participation and a high teacher failure rate, the Board faced a threat of losing its proposed \$18.5 million in fiscal 1999 federal funding. According to the U.S. House Committee on Education and the Workforce Chairman Bill Goodling (R-PA), the Board is unsuccessful and an indefensible waste of taxpayer money (Cited in Hettinger, 1998).

Throughout the numerous reports addressing the needs of schools at the close of the 20<sup>th</sup> Century is this common theme: today's schools require and, therefore, must be able to identify more knowledgeable, skilled, and flexible teachers (Diez & Blackwell,

1999). Authors Ballou and Podgursky (1998) reviewed data on the characteristics of newly recruited teachers, personnel policies, and staffing patterns. They objected to the vagueness of the standards and the subjective element of the performance assessment. They called for more objective measures of teacher performance.

### Summary

Education could be called the nation's largest endeavor because it involves 70 million students and employees, more than one fourth of the population. The annual cost for the "education business" is in the 450 billion dollar range, nine percent of the gross domestic product. With the election of a new President in 2000, change in the focus of educational initiatives was almost certain. Nevertheless, the problems that afflict United States education are so complex that no matter what a President does, the results will be well into the future (Smetanka & Pinney, 1992). Reforms are an inextricable part of educational change and advanced teacher certification programs, such as the National Board for Professional Teaching Standards.

Standards are elements of those reforms. The staying power of advanced teacher certification in education will be tested. Research information is not yet available about the impact of the certification process on the quality of teaching. There is not the critical mass of teachers needed to document the effect of the program even on the standard of education in an individual school district, much less on the quality of education in school districts and states nationwide. To survive in this context the National Board for Professional Teaching Standards will have to have substantial increases in participation

and success rates (Rotberg, et al., 1998).

As of March 2002, only 40 Tennessee educators had completed the rigorous procedures giving them national certification for their professional teaching excellence. The 40 teachers, including three who live in Tennessee but teach in Mississippi, achieved the special status awarded by the National Board for Professional Teaching Standards (Tennessee State Department of Education, 2001). Many of Tennessee's neighbors have much higher numbers of National Board Certified teachers (e.g. North Carolina-3,660, Alabama-309, Georgia-422, Virginia-278, South Carolina-1,291) (National Board of Professional Teaching Standards, 2001). In an effort to boost teacher interest and participation, many of those neighboring states offer financial incentives such as certification fee supplement, attainment bonus, and incremental pay raises.

In April, 2001, when the National Board for Professional Teaching Standards rolled out its new schedule for the next generation of certificates it also reported basic changes for portfolio entries and assessment center exercises. According to a memorandum sent to the principals of Tennessee Public Schools:

The portfolio and assessment center processes have been refined and improved. The changes made are evolutionary, not revolutionary, and will be effective for all 2001-2002 candidates. The next generation of National Board Certification, while different, is still challenging and rigorous. With every certificate being modified to align with the next generation model, all portfolios will undergo printing and production revisions. (Fagan, 2001, p. 4)

Although the Tennessee Department of Education, through its Office of Training and Professional Development, is fueling the National Board Certification initiative with information sessions upon request and federal funds to subsidize the application fee, a

large number of Tennessee teachers remain unresponsive to the process. This study will attempt to identify barriers that are perceived by teachers in East Tennessee that may be among the reasons so few Tennessee teachers pursue National Board Certification. Once identified, the barriers can be addressed.

CHAPTER 3  
METHODOLOGY AND PROCEDURES

This chapter includes the methodology of the study. It includes the research design, hypotheses, procedures, population, sample, sampling method, and measurement of variables.

Research Design

In this study, I used the inferential research method that involved the collection of data through a survey of the chosen sample to answer research questions relative to the perceptions of the National Board for Professional Teaching Standards.

Hypotheses

The following null hypotheses were tested at the .05 level of significance.

- 1: There is no difference in the identified barriers to participation in National Board Certification among those who plan to attempt National Board Certification, those who do not, and those who are unsure.
- 2: There is no difference in the identified barriers to participation in National Board Certification among respondents of different ages.
- 3: There is no difference in the identified barriers to participation in National Board Certification between males and females.
- 4: There is no difference in the identified barriers to participation in National

Board Certification among respondents in different job assignments (primary, intermediate, middle, and high school).

5: There is no difference in the identified barriers to participation in National Board Certification among respondents with different numbers of years of teaching experience.

6: There is no difference in the identified barriers to participation in National Board Certification among respondents with different educational levels.

7: There is no difference in the identified barriers to participation in National Board Certification among respondents who indicate perceived levels of administrative support and those that indicate no perceived levels of support.

8. There is no difference in the overall opinions of the respondents regarding National Board Certification and the various sources of information they used to become informed about the National Board for Professional Teaching Standards.

### Procedures

In the absence of a relevant instrument to identify perceived barriers to National Board Certification status by teachers of K-12 classrooms in two counties of East Tennessee, instrumentation was developed. This instrumentation was in the form of a survey and was used to collect data to determine the perceived barriers to participation in National Board Certification. The survey was based on a literature search of the barriers that have been identified on a national basis in the areas of teacher quality, standards, accountability, and the National Board for Professional Teaching Standards.

An item pool of statements regarding the National Board for Professional Teaching Standards was developed using input from the literature and experts in the field (state education department officials, professors of higher education, and National Board for Professional Teaching Standards certified teachers). A survey instrument made up of 44 items was then developed from the item pool. The statements were subgrouped, according to shared themes identified by the researcher and experts in the field, into five barrier subscales: personal obstacles, teacher morale, evaluation process, financial considerations, and teaching professionalism.

A developmental sample of the survey instrument was conducted with 10 respondents. The respondents for the development sample came from a population of teachers enrolled in graduate education programs. All participants were eligible for National Board Certification but had not attained that status. Survey items and barriers were then retained, modified, or deleted based on the oral and written input from the developmental sample. The survey was then revised into a final form for approval by the necessary officials at East Tennessee State University.

Using the cluster sampling technique, I randomly selected the sample from a list of schools in Cocke and Sevier Counties of Tennessee. The list was provided by the Tennessee State Department of Education and by system administrators. After approval from the East Tennessee State University Internal Review Board, an explanatory letter and survey forms were hand delivered to the selected schools and put in the teachers' mailboxes (copies of the survey and letter are included in the Appendices A and B, respectively).

After 10 days the surveys were collected. Data were entered into SPSS/SV 10.0 (Norusis, 1998) by hand. SPSS/SV 10.0 was used for statistical calculations. The hypotheses were then tested and findings analyzed.

### Population

The population to which this study was meant to generalize is the approximately 1200 educators in the East Tennessee counties of Cocke and Sevier who were eligible for, but who had not attained National Board Certification. These teachers encompassed all certified and eligible teachers in grades kindergarten through 12 (K-12) in the public schools of Cocke and Sevier counties. This population included both males and females, various ages, levels of education, years of teaching experience, and teaching assignments.

### Sample

The sample in this study was comprised of educators in the Cocke and Sevier counties of East Tennessee who are eligible to apply for but have not been identified as attaining National Board for Professional Teaching Standards certification. The target population consisted of 300 educators in Cocke County and 900 educators in Sevier County who are eligible to apply for National Board Certification. The sample described included educators who hold at least a bachelor's degree, have taught for a minimum of three years, and have proper professional licensure (The National Board for Professional Teaching Standards, 1994).

The sample size for this study was determined by using the formula provided by

Scheaffer, Mendenhall, and Ott (1986). A copy of the formula is provided in the Appendix C. The formula was used to provide for a 95% level of confidence and for an error on the estimate of  $\pm 5\%$ . Using the formula, the calculated sample size would be 448, which includes 171 from Cocke County and 277 from Sevier County. In order to account for nonresponse, over sampling was employed. Seven hundred surveys were distributed. Factors that were examined in the choice of the sample size were: efficient sample size, implications of the design for efficient sample size, adjustments for ineligibles and nonresponses, expense of the design given the sample size, and credibility (Henry, 1991). It was recommended that the sample size be as large as possible in order to reduce the likelihood of failing to reject the null hypotheses when they were actually false (Fitz-Gibbon & Morris, 1987).

### Sampling Method

Clustered sampling is a feasible way to select groups of individuals when the groups occur naturally (Borg & Gall, 1989). A random sample of six schools in Cocke County and eight schools in Sevier County was drawn. Using random sampling is appropriate for generalizations of results to a larger population within margins of error, which can be determined statistically. Random sampling permits the researcher to use inferential statistics with the data. Certain inferences may be made about population values, such as means, standard deviations, and correlation coefficients on the basis of obtaining values (Borg & Gall).

## Measurement of Variables

The survey consisted of a written survey form completed by the respondents. The survey contained an offering of 38 positive and negative statements with a modified version of a Likert five-point response scale. The scale provided a choice regarding the respondent's strength of agreement with the statement. The choice range was strongly agree, agree, unsure, disagree, strongly disagree (DeVillis, 1991). There was also an opportunity for written comments by the respondents. The survey contained a demographic section as well as a section for statements regarding the identification of barriers to participation in the National Board for Professional Teaching Standards.

Validity for the instrument was established via a review of the instrument by Amy Gallagher, Tennessee Department of Education; George Harris, University of Tennessee; and Louise MacKay, East Tennessee State University.

Reliability was established by using the pilot test data set. The overall Cronbach's alpha was calculated as .9420. The pilot test data set was also used to conduct a factor analysis to validate the factors identified by the researcher and experts as barrier subgroups. A copy of the instrument used in the pilot study is in Appendix D. As a check, the entire response set from the two counties survey was also used to test reliability.

For the pilot test, the survey was divided into subscales by the researcher according to the identification of similar factors. Five subscales were identified for the purposes of the pilot study:

1. Teacher Morale Barrier – This subscale is composed of statements that indicate the

teacher's perception that the processes required to participate in the National Board Certification program are or are not detrimental to teacher morale. Statements 2, 4, 10, 18, 19, 20, 24, 30, 33, and 34 make up this subscale.

2. Evaluation Process Barrier – This subscale is composed of statements that indicate a perception among educators that the processes used for evaluation in National Board Certification prohibit their participation. Statements 3, 6, 11, 12, 13, 16, 26, and 31 make up this subscale.
3. Financial Considerations Barrier - This subscale is composed of statements that indicate a perception among educators that the lack of financial reward aspects of National Board Certification keep them from participating. Statements 1, 9, 23, 29, 42, and 43 make up this subscale.
4. Personal Obstacles Barrier - This subscale is composed of statements wherein educators indicated factors of a physiological or psychological nature (time, attitude) that contributed to their not participating in National Board for Professional Certification. Statements 5, 8, 17, 28, 35, 37, 38, 39, 40, and 44 make up this subscale.
5. Teaching Professionalism Barrier – This subscale is composed of statements that indicate a perception among educators that National Board Certification is detrimental to the professionalism of the field of teaching and thus prohibits their participation. Statements 7, 14, 15, 21, 22, 25, 27, 32, 36, and 41 make up this subscale.

Below is a list of the Cronbach alpha coefficients for the total instrument and the

five subscales after questions 7, 22, 27, 35, 37, and 38 were dropped from the original 44 item survey in an effort to improve reliability. The Cronbach alpha coefficients, which were calculated using the two counties study sample, are also provided.

1. Teacher Morale Barrier alpha = .8911;  
Standardized item alpha = .9004 (Two counties = .9052)
2. Evaluation Process Barrier alpha = .7832;  
Standardized item alpha = .7901 (Two counties = .7744)
3. Financial Consideration Barrier alpha = .6909;  
Standardized item alpha = .7147 (Two counties = .6758)
4. Personal Obstacle Barrier alpha = .8367  
Standardized item alpha = .8401 (Two counties = .8455)
5. Teaching Professionalism Barrier alpha = .8996;  
Standardized item alpha = .9010 (Two counties = .9017)
6. Total score: alpha = .9420;  
Standardized item alpha = .9345 (Two counties = .9110)

Based on the pilot test data it was decided that the total score would not be used because it is not a logical barrier. Once the six statements were deleted, the survey statements were reorganized to offer a mixture of positive and negative questions and renumbered. Thus on the final survey form the five barrier subscales were composed as follows:

1. Teacher Morale Barrier – Statements 3, 4, 17, 19, 20, 24, 26, 28, and 32 make up

this subscale.

2. Evaluation Process Barrier – Statements 2, 5, 11, 12, 13, 16, and 30 make up this subscale.
3. Financial Consideration Barrier – Statements 1, 9, 23, 25, and 35 make up this subscale.
4. Personal Obstacle Barrier – Statements 6, 7, 10, 22, 29, 36, and 38 make up this subscale.
5. Teaching Professionalism Barrier – Statements 8, 14, 15, 18, 21, 22, 31, 33, 34, and 37 make up this subscale.

### Data Analysis

Frequencies, percentages, and means of the barrier subscales were calculated using the statistical program - SPSS/SV 10.0 (Norusis, 1998). The level of measurement was treated as interval, and the means for each barrier subscale was compared between demographic subgroups by using either a t-test or an analysis of variance (for those demographic groups with more than two subgroups). This was done to determine whether a given group's mean barrier scores differed significantly from the others.

A t-test for independent samples was selected to test for significant differences in the mean barrier subscale scores of demographic groups identified in hypotheses 3 and 7. One-way analysis of variance (ANOVA) was used to test for significant differences in the mean barrier subscale scores of demographic groups identified in hypotheses 1, 2, 4, 5, and 6. A chi-square test was used to test for independence in the respondents' overall

opinions based on their source of information (hypothesis 8). For each hypothesis, the alpha level was set at .05. For hypotheses 1-8, testing was done to determine if significant differences existed in the mean scores on these five barrier subscales: Teacher Morale, Evaluation Process, Financial Considerations, Personal Obstacles, and Teaching Professionalism.

## CHAPTER 4

### PRESENTATION AND ANALYSIS OF DATA

Chapter 4 includes the results and findings obtained from the data gathered in this study. The hypotheses and research questions that were tested to determine the perceived barriers to the National Board for Professional Teaching Standards certification by eligible educators in Tennessee were presented in Chapter 1. Educators were chosen from each of the two counties in East Tennessee. Statistical treatment procedures were related in Chapter 3.

Data collected for this study were obtained from 459 surveys received of the 700 sent to educators in the Sevier County and Cocke County public schools. Of the surveys returned, 448 were usable. The survey, which was developed by the researcher, consisted of 38 statements. The statements dealt with educator attitudes toward the National Board for Professional Teaching Standards. The survey also contained a demographic section that gathered data on respondents' age, gender, teaching assignment, number of total years of teaching experience, highest educational level attained, future plans to attempt, not attempt, or unsure about attempting National Board Certification, informational sources, and overall opinion concerning the National Board for Professional Teaching Standards. A space was provided for additional comments.

#### Respondents

Four hundred fifty-nine of the 700 educators who were delivered surveys returned them, resulting in a return rate of 65.5%. Eleven surveys were unusable

due to survey defacement. The result was 448 useable responses or 64% of the possible 700. Table 1 displays the two counties, the surveys delivered in each county, the total surveys returned in each county, and the percent of total returns from each county. Table 2 displays the two counties, the surveys delivered in each county, the total useable returns in each county, and the percent of useable returns from each county. There was no evidence of response bias as there were no significant differences in the observed rate of returns by county compared to the expected rate when tested with chi-square ( $\chi = 2.17$ ,  $p > .05$ ).

Table 1

Total Response Rates by County

<u>County</u>	<u>Number of Surveys</u>		<u>Percent Returned</u>
	<u>sent</u>	<u>returned</u>	
Cocke	275	175	63.63%
Sevier	425	284	67.05%
Total	700	459	65.34%

X = 2.17, p > .05, no significant differences in proportions by county of those returned compared to those sent out

Table 2

Usable Response Rates by County

<u>County</u>	<u>Number of Surveys</u>		
	<u>sent</u>	<u>useable returns</u>	<u>Useable Returns Percent</u>
Cocke	275	171	62.18%
Sevier	425	277	65.17%
<b>Total</b>	<b>700</b>	<b>448</b>	<b>63.67%</b>

The Survey Instrument

A description of the initial construction of the survey instrument including its validation through the pilot study can be found in Chapter 3. The survey in its final form and the cover letter sent with it can be found in the Appendices A and B, respectively. Demographic data as well as questions concerning future plans to attempt National Board Certification, informational sources, overall opinion, and additional comments were placed on the first page. Pages 2 and 3 included instructions for completion of the survey and a description of the key. The Likert-type scale was SA, strongly agree; A, agree; U, unsure; D, disagree; and SD, strongly disagree. Analysis of the demographic data revealed that the largest group of respondents were female (331 or 73.9%). Age categories were divided into approximately even groups with the largest group being the 35 through 44 age group (172 or 38.4%), and the smallest group being the 25 through 34

age group (146 or 32.6%). Job classification revealed that the largest group of respondents taught at the high school level (188 or 42%) and the smallest group taught at the primary level (83 or 18.5%). Almost two-thirds of the respondents (266 or 64.3%) have less than 17 years teaching experience, while just over a third (160 or 35.7%) have 17 or more years teaching experience; respondents with a master's degree (176 or 39.3%) made up the largest group in the highest education level attained, and the smallest group was made up by those respondents with a doctorate (2 or .4%). Additional data from the survey included: Fifty-seven percent (253) of the respondents stated that they would not attempt to gain National Board Certification, while 38% (171) stated that they were unsure and 5% (24) said they would attempt National Board Certification in the future. Educators in the study indicated that their information about the National Board for Professional Teaching Standards came mostly from teaching colleagues (28.2%), while media provided the least information (9.1%). Regarding level of awareness, analysis revealed that most respondents consider themselves poorly informed (303 or 68.2%) and only a small number consider themselves to be well informed (21 or 4.7%). A question was asked regarding the respondents' overall opinion of the National Board for Professional Teaching Standards. Almost two thirds (62%) of the respondents had a negative overall opinion of the program, while just over one third (38%) had a positive overall opinion. Table 3 illustrates specific frequency data concerning the above demographic and informational data.

Table 3

Demographic and Informational Frequency Data

<u>County</u>	<u>Frequency</u>	<u>Percent</u>
Cocke	171	38.2
Sevier	277	61.8
Total	448	100.0

<u>Gender</u>	<u>Frequency</u>	<u>Percent</u>
Male	117	26.1
Female	331	73.9
Total	448	100.0

<u>Age</u>	<u>Frequency</u>	<u>Percent</u>
25 – 34	130	29.0
35 – 44	172	38.4
45 +	146	32.6
Total	448	100.0

<u>Teaching Assignment</u>	<u>Frequency</u>	<u>Percent</u>
Primary School	83	18.5
Intermediate School	93	20.8
Middle School	84	18.8
High School	188	42.0
Total	448	100.1

<u>Years Teaching</u>		
<u>Experience</u>	<u>Frequency</u>	<u>Percent</u>
3-11	199	44.4
12-20	131	29.2
21 or more	118	26.3
Total	448	100.0

Note: Totals may be slightly above or below 100%, due to rounding.

Table 3 – continued

<u>Education level</u>	<u>Frequency</u>	<u>Percent</u>
Bachelor	163	36.4
Master	176	39.3
Specialist	107	23.9
Doctorate	2	.4
<u>Total</u>	<u>448</u>	<u>100.0</u>

<u>Plan to Attempt</u>		
<u>NB certification</u>	<u>Frequency</u>	<u>Percent</u>
Yes	24	5.4
No	253	56.5
Unsure	171	38.2
<u>Total</u>	<u>448</u>	<u>100.1</u>

<u>Information source</u>	<u>Frequency</u>	<u>Percent</u>
Published materials	67	20.3
Teaching Colleagues	93	28.2
Administration	62	18.8
Other	78	23.6
Media	30	9.1
Missing	118	
<u>Total</u>	<u>448</u>	<u>100.0</u>

<u>Level of awareness</u>	<u>Frequency</u>	<u>Percent</u>
Well informed	21	4.7
Moderately informed	120	27.0
Poorly informed	303	68.2
Missing	4	
<u>Total</u>	<u>448</u>	<u>99.9</u>

<u>Overall opinion</u>	<u>Frequency</u>	<u>Percent</u>
Positive	127	38.3
Negative	205	61.7
Missing	116	
<u>Total</u>	<u>448</u>	<u>100.0</u>

Note: Totals may be slightly above or below 100%, due to rounding

### Survey Statement Responses

The survey contained 38 statements concerning the National Board for Professional Teaching Standards program. A sample of the survey is provided in Appendix A. There were 21 negative statements about the program and 17 positive statements. Respondents circled SA for strongly agree, A for agree, U for unsure, D for disagree, and SD for strongly disagree to indicate their levels of agreement with the statements. For the purposes of data analysis all statements that contained a positive connotation regarding the National Board for Professional Teaching Standards were reverse coded. This resulted in a five-point scale for each statement with a higher score indicating stronger agreement and a lower score indicating less agreement. A list of statements that were reverse coded is included in Appendix E. Table 4 summarizes the mean scores of statements 1-38 after reverse coding occurred. The higher the mean score, the more problematic is the concept presented in the statement in encouraging National Board for Professional Teaching Standards participation. A high score indicated the concept presented in the statement is a barrier. Table 4 is in Appendix E.

### Hypothesis Testing

A t-test for independent samples was used to test for significant differences in the mean barrier subscale scores of demographic groups identified in hypothesis 3. One-way analysis of variance (ANOVA) was used to test for significant differences in the mean barrier subscale scores of demographic groups identified in hypotheses 1, 2, 4, 5, 6 and 7. A chi-square test was used to test for independence of the respondents' overall

opinions from their source of information (hypothesis 8). For each hypothesis the alpha level was set at .05. For hypotheses 1-8, testing was done to determine if significant differences existed in the mean scores on these five barrier subscales: Personal Obstacles, Evaluation Process, Financial Considerations, Teaching Professionalism, and Teacher Morale. A full explanation of each of these barrier subscales and which questions constitute them can be found in Chapter 3. The null hypothesis was rejected if a significant difference was found on any of the subscales.

### Hypothesis Testing Results

Ho1: There will be no difference in the identified barriers to participation in National Board for Professional Teaching Standards between those who plan to attempt certification, those who do not, and those who are unsure.

The respondents were divided into three groups: group 1 was comprised of 24 educators who planned to gain National Board Certification in the future; group 2 included 253 educators who did not plan to gain this certification; and group 3 included 171 educators who were unsure if they would attempt to gain National Board Certification. One-way ANOVA was used to determine if significant differences existed between the groups; if they did, the Tukey's Least Significant Differences (LSD) Post Hoc Multiple Comparisons test was then used to determine which groups were different from each other.

Significant differences were found for the barriers of Personal Obstacles, Evaluation Process, Financial Considerations, Teaching Professionalism, and Teacher

Morale. Therefore, the null hypothesis was rejected. Results are shown in Table 5. Those who did not plan to try for National Board Certification (Group 2) scored significantly higher on the Evaluation Process, Teacher Morale, Financial Considerations, Personal Obstacles, and the Teaching Professionalism barriers than did those who planned to attempt National Board Certification (Group 1). Those who were unsure about attempting National Board Certification (Group 3) scored significantly higher on the Personal Obstacles Barrier, Evaluation Process Barrier, Teaching Professionalism Barrier, and the Teacher Morale Barrier than those who planned to attempt National Board Certification (Group 1).

Table 5

ANOVA Results for Hypothesis One: Differences in Perceived Barriers  
Between Those Who Plan to Attempt National Board Certification, Those  
Who Do Not, and Those Who Are Unsure

Barrier	Mean Scores by Plans to Attempt NBPTS			F	Prob	Post hoc
	Group 1 (Plan to Attempt)	Group 2 (Do Not Plan to Attempt)	Group 3 (Unsure)			
Personal Obstacles	21.37	25.58	24.11	14.10	.000*	1,2** 2,3** 1,3**
Evaluation Process	11.29	13.32	12.54	9.90	.000*	1,2** 2,3** 1,3**
Financial Consider- ations	10.62	11.59	11.07	4.23	.015*	1,2** 2,3**
Teaching Profes- sionalism	29.25	35.25	32.01	19.98	.000*	1,2** 2,3** 1,3**
Teacher Morale	25.54	29.69	28.37	6.59	.002*	1,2** 2,3** 1,3**

\* Indicates groups were significantly different at alpha = .05

\*\* Indicates the groups that were significantly different at alpha = .05

Ho2: There is no difference in the identified barriers to participation in National Board Certification among respondents of different ages.

Respondents were categorized into three groups for analysis. Frequency data were used to determine group composition. Group 1 included 130 individuals in the 25 – 34 years range, group 2 was made up of 172 persons in the 35 – 44 years range, and group 3 included 146 educators in the 45 years and above category. One-way ANOVA was used to determine if differences existed in the mean barrier scores between the three groups. The Tukey’s Least Significant Differences (LSD) Post Hoc Multiple Comparisons test was used to determine which groups were significantly different from each other when the ANOVA identified that significant differences existed. Significant differences were found for the Personal Obstacle Barrier, Evaluation Process Barrier, Financial Considerations Barrier, Teaching Professionalism Barrier, and Teacher Morale Barrier. The null hypothesis was rejected. Table 6 shows the results of this analysis. Those in group 3 (aged 45 and above) scored significantly higher on the Teaching Professionalism Barrier, the Teacher Morale Barrier, and the Financial Considerations Barrier than did those in group 1 (ages 25-34) and group 2 (ages 35-44). Group 3 also scored significantly higher on the Personal Obstacles Barrier and the Evaluation Process Barrier than did those in group 1. Additionally, group 2 scored significantly higher on the Personal Obstacles Barrier, Evaluation Process Barrier, Financial Considerations Barrier, Teaching Professionalism Barrier, and Teacher Morale Barrier than did those in group 1.

Table 6

ANOVA Results for Hypothesis Two: Differences in Perceived Barriers  
Between Those 25-34 Years Old , Those 35-44 Years Old, and Those  
Who Are 45 Years and Older

Barrier	<u>Mean Scores by Age</u>			F	Prob	Post hoc
	Group 1 (25 - 34)	Group 2 (35 - 44)	Group 3 (45 +)			
Personal Obstacles	23.15	26.70	26.19	13.65	.000*	1,2* 1,3**
Evaluation Process	12.08	14.95	13.65	9.13	.000*	1,2** 1,3**
Financial Considerations	10.37	11.26	11.90	9.44	.000*	1,2** 2,3** 1,3**
Teaching Professionalism	32.03	34.31	35.89	17.19	.000*	1,2** 2,3** 1,3**
Teacher Morale	28.22	29.00	30.84	5.46	.001*	1,2** 2,3** 1,3**

\* Indicates groups were significantly different at alpha = .05  
 \*\* Indicates the groups that were significantly different at alpha = .05

Ho3: There is no difference in the identified barriers to participation in National Board Certification between males and females.

Respondents were divided into two categories: males (n=117) and females (n=331). A t-test for independent means was used to determine if significant differences existed in the mean barrier scores between males and females. Significant differences were found in the Teacher Morale Barrier and in the Financial Considerations Barrier. The null hypothesis was rejected. Males had a significantly higher mean score on the Teacher Morale Barrier and females had a significantly higher mean score on the Financial Considerations Barrier. Results are presented in Table 7.

Table 7

Results of t-test for Hypothesis Three: Differences in Perceived Barriers  
Between Males and Females

<u>Mean Scores by Gender</u>				
Barrier	Males	Females	t	Prob
Personal Obstacles	25.17	24.66	1.08	.281
Evaluation Process	13.21	12.81	1.41	.160
Financial Considerations	20.10	21.42	3.86	.014*
Teaching Professionalism	33.79	33.68	.17	.869
Teacher Morale	30.88	28.27	4.04	.000*

\* Indicates groups were significantly different at alpha = .05

Ho4: There is no difference in the identified barriers to participation in National Board Certification among respondents in different job assignments (primary, intermediate, middle, and high school).

Respondents were placed into the following categories: group 1 – primary school teachers (n=83), group 2 – intermediate school teachers (n=93), group 3 – middle school teachers (n= 84), and group 4 – high school teachers (n=188). One-way ANOVA was used to determine if groups differed in their scores on the five barrier subscales. The Tukey’s Least Significant Differences (LSD) Post Hoc Multiple Comparisons test was used to determine which groups were significantly different from each other when the ANOVA identified that significant differences existed. Significant differences were found for the Personal Obstacles, Evaluation Process, Teaching Professionalism, and Teacher Morale barriers. The null hypothesis was rejected. Results are presented in Table 8. Those respondents in the high school group scored significantly higher on the Teacher Morale Barrier than those in the other three groups. Also the high school group and the intermediate school group scored significantly higher on the Personal Obstacles Barrier than did the primary group.

Table 8

ANOVA Results for Hypothesis Four: Differences in Perceived Barriers Between Those In Different Teaching Assignments

<u>Mean Scores by Job Assignment</u>							
Barrier	Group1 Primary	Group 2 Intermediate	Group3 Middle	Group 4 High	f	Prob	Post hoc
Personal Obstacles	23.53	25.51	24.48	25.13	3.61	.013*	1,2** 1,4**
Evaluation Process	11.64	13.02	13.66	13.11	9.90	.000*	1,2** 1,3** 1,4**
Financial Consider- ations	11.11	11.56	11.02	11.52	1.96	.120	-
Teaching Profes- sionalism	31.16	34.06	34.65	34.26	5.56	.001*	1,2** 1,3** 1,4**
Teacher Morale	27.76	28.35	28.24	30.10	4.03	.008*	1,4** 2,4** 3,4**

\* Indicates groups were significantly different at alpha = .05

\*\* Indicates the groups that were significantly different at alpha=.05

Ho5: There is no difference in the identified barriers to participation in National Board Certification among respondents with different numbers of years of teaching experience.

Respondents were divided into three categories: group 1 (n=199) included educators who have taught 3 – 11 years, group 2 (n=131) included educators who have taught 12 – 20 years, and group 3 (n= 118) included educators who have taught 21 years or more. One-way ANOVA was used to determine if significant differences existed between the mean barrier scores for the two groups. The Tukey’s Least Significant Differences (LSD) Post Hoc Multiple Comparisons test was used to determine which groups were significantly different from each other when the ANOVA identified that significant differences existed. The Personal Obstacles, Evaluation Process, Financial Considerations, Teaching Professionalism, and Teacher Morale barriers were all significantly greater for educators with 12-20 years experience and for those with 21 or more years experience. The null hypothesis was rejected. Table 9 provides the data analysis results.

Table 9

ANOVA Results for Hypothesis Five: Differences in Perceived Barriers Between Educators With 3-11 Years Experience, Those With 12-20 Years Experience, and Those With 21 Years Or More

<u>Mean Scores by Years Teaching Experience</u>						
Barrier	Group1 3 – 11	Group 2 12 – 20	Group 3 21 +	f	Prob	Post hoc
Personal Obstacles	23.66	26.01	25.56	14.08	.000*	1,2** 1,3**
Evaluation Process	12.27	13.47	13.51	12.67	.000*	1,2** 1,3**
Financial Considerations	10.73	11.70	12.03	16.65	.000*	1,2** 1,3**
Teaching Professionalism	31.68	35.34	35.55	19.99	.000*	1,2** 1,3**
Teacher Morale	27.43	29.60	30.98	14.51	.000*	1,2** 1,3**

\* Indicates groups were significantly different at alpha = .05

\*\* Indicates the groups that were significantly different at alpha = .05

Ho6: There is no difference in the identified barriers to participation in National Board Certification among respondents with different educational levels.

Four groups were used for this analysis with each group divided according to the highest level of education attained by the respondent. These groups were: group 1 = Bachelor's degree (n=163); group 2 = Master's degree (n=176); group 3 = Specialist degree (n=107); group 4 = Doctorate degree (n=2). One-way ANOVA was used to determine if differences existed between groups in the mean barrier scores. No significant differences were found. The null hypothesis was retained. Results are presented in Table 10.

Table 10

ANOVA Results for Hypothesis Six: Differences in Perceived Barriers Between Those With Different Education Levels

Barrier	<u>Mean Scores by Education Level</u>				F	Prob
	Group 1: Bachelor's Degree	Group 2: Master's Degree	Group 3: Specialist Degree	Group 4: Doctorate Degree		
Personal Obstacle	24.47	24.98	24.97	26.01	.698	.498
Evaluation Process	12.91	12.78	13.16	13.80	.680	.507
Financial Consider- ations	11.09	11.58	11.32	11.08	2.154	.117
Teaching Profes- sionalism	33.26	33.67	34.46	35.22	1.099	.334
Teacher Morale	28.72	29.22	28.91	29.61	.291	.748

Ho7: There is no difference in the identified barriers to participation in National Board Certification among respondents who indicate perceived levels of administrative support and those that indicate no perceived levels.

Respondents were divided into two categories based on their responses to survey statement number 10 “There is encouragement by the principal for staff participation in NBPTS.” One hundred fourteen respondents indicated agreement with this statement and 88 respondents disagreed with this statement. A t-test for independent means was used to determine if significant differences existed between the two groups on the barrier subscales. Significant differences were found on the mean scores for all five barrier subscales. The null hypothesis was rejected. In each case, those who disagreed that the principal encourages participation in the National Board Certification program found the barriers more problematic than did those who indicated that the principal encouraged participation in National Board Certification. Data are presented in Table 11.

Table 11

Results of t-test for Hypothesis Seven: Differences in Perceived Barriers Between Educators Who Agreed That the Principal Encouraged Participation in National Board Certification and Those That Disagreed

<u>Mean Scores</u>				
Barrier	Agreed	Disagreed	t	Prob
Personal Obstacles	3.90	4.16	3.12	.002*
Evaluation Process	3.63	3.95	4.92	.000*
Financial Considerations	3.53	3.82	4.18	.000*
Teaching Professionalism	3.66	4.13	6.24	.000*
Teacher Morale	2.82	3.09	2.84	.004*

\* Indicates groups were significantly different at alpha = .05

Ho8: There is no difference in the overall opinions of the respondents regarding National Board Certification and the various sources of information they used to become informed about the National Board for Professional Teaching Standards. Respondents were asked to respond to this question “I have obtained most of my information about The National Board for Professional Teaching Standards from...” Individual responses of those who also answered the opinion question (n = 330) were grouped into the following categories: published materials (n = 67), teaching colleagues (n = 93), local administration (n = 62), media (n = 78), and other (n = 30). Respondents were also asked to answer this question: “My overall opinion of The National Board for Professional Teaching Standards is Positive \_\_\_\_ Negative\_\_\_\_”. Of those who provided an answer to the question regarding their overall opinion, 105 (31.8%) responded “positive” and 225 (68.2%) checked “negative”. A chi-square test was used to determine if overall opinion was independent of the source of information. If opinions were independent of source one would expect the percentage of positive responses by each category to be the same as the overall percentage of positive responses (31.8%). Three categories had a greater than expected percentage of respondents who had a positive opinion of the program. For those who received their information from local administrators, 51.6% indicated a positive overall opinion of the program, 40.3% of those who received their information from published materials indicated a positive opinion, and for respondents who received their information from the media, 53.3% indicated a positive overall opinion. Respondents who received their information from teaching colleagues or from other sources had a greater percentage of negative opinions than

expected (expected was 68.2%). Responses of “teaching colleagues” made up 78.5% of the total and “other” was 87.2%. The null hypothesis was rejected. Results are presented in Table 12.

Table 12

Results for Hypothesis Eight: Summary of Chi-Square Test of Independence for Opinions of National Board Certification by Source of Information Regarding the Program

Expected (ef) and Observed (of) Frequencies with Expected and Observed Percentages by Information Source					
Opinion	Colleagues	Teaching Materials	Published Admin.	Local Other	Media
Positive	ef = 26	ef = 19.8	ef = 17.5	ef = 5.2	ef = 23.7
	31.8%	31.8%	31.8%	31.8%	31.8%
	of = 20	of = 23	of = 32	of = 10	of = 16
	21.5%	40.3%	51.6%	12.8%	53.3%
Negative	ef = 66	ef = 48.1	ef = 44.5	ef = 60.3	ef = 10.1
	68.2%	68.2%	68.2%	68.2%	68.2%
	of = 73	of = 44	of = 30	of = 68	of = 14
	78.5%	59.7%	48.4%	87.2%	46.7%

Chi-Square = 33.61; p = .00001

Research Questions

The first four research questions were answered through hypothesis testing. Research questions five, six, and seven are answered in this section.

RQ5: What do the respondents consider their level of awareness concerning the National Board Certification process?

The results indicated that the majority of the respondents consider themselves poorly informed (n = 303, or 68.2%) about the National Board Certification process. Of the total 444 respondents 27.0% (n = 120) consider themselves moderately informed, and a very small percentage (n = 21, or 4.7%) consider themselves well informed. The results are presented in Table 13.

Table 13

Results to Research Question Five: Summary of the Level of Awareness of the National Board Certification Process

Level of Awareness	Frequency	Percent
Well-informed	21	4.7
Moderately informed	120	27.0
Poorly informed	303	68.2
Total	444	100.0

RQ6: Do the respondents have an overall opinion of the National Board Certification program that is negative or positive?

A majority of respondents (n = 205, or 61.7%) indicated a negative opinion of the National Board Certification program. Only 38.3% (n = 127) had a positive opinion. Of

the total 448 respondents approximately one third (n = 116, or 25.9%) did not answer the question. Some of these wrote in “undecided” or “unsure” beside the question. Results are presented in Table 14.

Table 14

Results to Research Question Six: Summary of Overall Opinions of The National Board for Professional Teaching Standards

Opinion	Frequency	Percent
Positive	127	38.3
Negative	205	61.7
Total	332	100.0

RQ7: Which barriers are most problematic to respondents?

The Personal Obstacles Barrier subscale had the highest mean score and the Financial Considerations Barrier subscale had the lowest. Thus respondents indicated Personal Obstacles as the greatest barrier to participation in National Board Certification. Least problematic was Financial Considerations. The mean scores were compared using a t-test for non-independent means to see if the mean subscale scores were significantly different from each other. Each mean scale score was significantly different from the majority of the others. Some mean scale scores were significant from all others, but some were significantly different from only a few others. Those with exceptions are

noted in Table 15.

Table 15

Results for Research Question Seven: Hierarchical Summary of Mean Barrier  
Subscale Scores

Barrier Ranking	Mean Score	Significantly Different From*
1. Personal Obstacles	4.048	all others
2. Teaching Professionalism	3.908	all others
3. Teacher Morale	3.737	all others except 4
4. Evaluation Process	3.563	all others except 3
5. Financial Considerations	3.000	all others except 4

\* Indicates which barrier subscale scores were significantly different from the others at alpha = .05 when compared using a t-test for non-independent means

Summary

Chapter 4 presented the descriptive data for the respondents from the two counties included in this study. The survey instrument, pilot study, and the two county survey were described. Results of hypotheses testing provided the answers to research questions one through four. Research questions five, six, and seven were answered using frequency

data. A test of significance was also used for research question seven. Results of the statistical analyses for each hypothesis test were provided in tables. A series of t-tests for independent means were used to test hypotheses three and seven. One-way analysis of variance (ANOVA) was used to test hypotheses one, two, four, five, and six. A chi-square test of independence was used to test hypothesis eight. The null hypotheses were rejected in each case except for hypothesis six (respondents with different educational levels). Significant differences were found based on whether or not the respondent planned to attempt National Board Certification or if they were unsure. In addition significant differences were found when testing for age, gender, different teaching assignment, years of teaching experience, perceived level of administrative support, and source of information regarding the National Board for Professional Teaching Standards.

Respondents' scores were significantly different on the five barrier subscales. The majority of respondents indicated their overall opinion of the National Board for Professional Teaching Standards as negative. The greatest perceived barrier to participation was Personal Obstacles and the least problematic was Financial Considerations. Chapter 5 provides a discussion of the results, conclusions, and recommendations.

## CHAPTER 5

### DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The National Board for Professional Teaching Standards was instituted in 1995. Highly touted as a professionally credible recognition of accomplished teaching needed to demonstrate that teachers meet high and rigorous standards for what accomplished teachers should know and be able to do, the program has produced mixed results. Although over 16,000 educators have participated in the National Board Certification program, the fact remains that as of March 2002, only 58 Tennessee teachers have received National Board Certification. It was, therefore, the purpose of this study to identify the barriers, as perceived by eligible teachers in two counties of East Tennessee, to participation in the National Board for Professional Teaching Standards Certification process. The study was designed to address the differences in these perceived barriers among various demographic groups.

A review of relevant literature revealed a broad treatment of The National Board for Professional Teaching Standards, as well as a thorough review of the positive and negative perceptions of National Board Certification. However, there has been no systematic attempt to determine the reasons why a majority of eligible teachers in Tennessee do not attempt to gain National Board Certification. There has not been a comprehensive attempt to identify which barriers are most problematic to these educators.

Following the review of literature, the researcher incorporated educators'

positive and negative viewpoints about the National Board for Professional Teaching Standards into survey format. After a pilot study involving 10 respondents, the resulting survey included 38 statements requiring a five scale response (strongly agree to strongly disagree). A demographic section, three multiple-choice statements, and two open-ended questions were also included. The survey statements were organized into five barrier subscales. These subscales are Personal Obstacles Barrier, Teaching Professionalism Barrier, Teacher Morale Barrier, Evaluation Process Barrier, and Financial Considerations Barrier. Definitions of these barriers and which statements are included in them are provided in Chapter 3.

### Discussion of Findings

The survey sample was determined by cluster sampling by school in two east Tennessee counties. The survey was sent to 700 educators. There were 459 surveys returned for a return rate of 65.5%. Eleven surveys were unusable due to survey defacement. This resulted in a usable return rate of 64%. Respondents were predominately female. They had a bachelor's degree, did not plan to attempt National Board Certification, and had an overall negative opinion of the National Board for Professional Teaching Standards.

Frequencies, percentages, and means for all the data are found in Chapter 4. The level of measurement for the survey was treated as interval and the mean scores on the barrier subscales were compared between demographic subgroups by using either a t-test for independent means or an analysis of variance (ANOVA) for the demographic groups

with more than two categories. These tests were used to determine whether a given subgroup's mean scores differed significantly from the other subgroups being considered. Alpha was set at .05 for decisions regarding hypothesis testing in this study.

All but one of the five hypotheses were rejected. No significant differences were found when comparing the mean barrier subscale scores of respondents with different educational levels (bachelor's degree, master's degree, education specialist degree, and doctorate of education degree). Significant differences in mean scores were found based on these factors: age, gender, years teaching experience, teaching assignment, and administrative support levels. Overall opinion of the National Board was related to the source of information concerning the program. One research question's answer indicated that a large majority of educators (61.7%) have a negative opinion of the National Board for Professional Teaching Standards. Respondents also indicated that they consider themselves poorly informed concerning the National Board Certification process. The other research question answer indicated that the Personal Obstacles Barrier was the greatest perceived barrier to participation.

Null hypothesis one "There is no difference in the identified barriers to participation in National Board Certification among those who plan to attempt National Board Certification, those who do not, and those who are unsure" was rejected. Those who do not plan to attempt National Board Certification had significantly higher scores on the Personal Obstacles Barrier (25.58 v. 21.37), Evaluation Process Barrier (13.32 v. 11.29), and Teacher Morale Barrier (28.37 v. 25.54) than those who do plan to try for National Board Certification. Significant differences were also found between those

respondents who do not plan to attempt National Board Certification and those who are unsure about attempting National Board Certification in the Personal Obstacles Barrier (25.58 v. 24.11), Evaluation Process Barrier (13.32 v. 12.54), Financial Considerations Barrier (11.59 v. 11.07), Teaching Professionalism Barrier (35.25 v. 32.01), and Teacher Morale Barrier (29.69 v. 28.37).

Null hypothesis two “There is no difference in the identified barriers to participation in National Board Certification among respondents of different ages” was rejected. The older group (aged 45 and older) scored significantly higher than the middle group (ages 40-54) and the middle group scored significantly higher than the younger group (ages 25-34 years) on the Financial Considerations Barrier (11.90 v. 11.26 and 11.26 v. 10.37, respectively), Teaching Professionalism Barrier (35.89 v. 34.31 and 34.31 v. 32.03, respectively), and Teacher Morale Barrier (30.84 v. 29.00 and 29.00 v. 28.22, respectively). The older group also scored significantly higher than the younger group on the Personal Obstacles Barrier (26.19 v. 23.15) and Evaluation Process Barrier (13.65 v. 12.08). The middle group scored significantly higher than the younger group on the Personal Obstacles Barrier (26.70 v. 23.15) and on the Evaluation Process Barrier (14.95 v. 12.08).

Null Hypothesis three “There is no difference in the identified barriers to participation in National Board Certification between males and females” was rejected. Males scored significantly higher on the Teacher Morale Barrier (30.88 v. 28.27) while females scored significantly higher on the Financial Considerations Barrier (21.42 v. 20.10).

Null hypothesis four “There is no difference in the identified barriers to National Board Certification among respondents in different job assignments” was rejected. Significant differences were found on the barrier subscale scores between elementary school teachers, intermediate school teachers, middle school teachers, and high school teachers. Respondents in the high school group, the middle school group, and the intermediate school group scored significantly higher than did the primary school group on the Teaching Professionalism Barrier (34.26 v. 31.16, 34.65 v. 31.16, and 34.06 v. 31.16, respectively) and on the Evaluation Process Barrier (13.11 v. 11.64, 13.66 v. 11.64, and 13.02 v. 11.64, respectively). Those in the high school group scored significantly higher on the Teacher Morale Barrier than did those in the other three groups (30.10 v. 28.24, 30.10 v. 28.35, and 30.10 v. 27.76, respectively). Also the high school group and the intermediate school group scored significantly higher on the Personal Obstacles Barrier than did the primary school group (25.13 v. 23.53 and 25.51 v. 23.53, respectively).

Null hypothesis five “There is no difference in the identified barriers to participation in National Board Certification among respondents with different numbers of teaching experience” was rejected. Significant differences were found for all five barriers. Those teachers with 12-20 years experience and those with 21 or more years experience scored significantly higher on all five barriers than did those teachers with only 3-11 years experience.

Null hypothesis six “There is no difference in the identified barriers to participation in National Board Certification among respondents with different

educational levels” was not rejected. No significant differences were found on the barrier subscale scores between those respondents who had attained a bachelor’s degree, master’s degree, specialist degree, or doctorate degree.

Null hypothesis seven “There is no difference in the identified barriers to participation in National Board Certification among respondents who indicate perceived levels of administrative support and those that indicate no perceived levels” was rejected. Respondents who agreed that their principal had encouraged participation in National Board Certification scored significantly lower on all five barrier subscales than those who disagreed.

Null hypothesis eight “There is no difference in the overall opinions of the respondents regarding National Board Certification and the various sources of information they used to become informed about the National Board for Professional Teaching Standards” was rejected. Respondents who indicated their source of information as teaching colleagues or other had a lower than expected percentage with a positive opinion of National Board Certification (21.5% and 12.8%, respectively with the expected as 31.8%). Educators who indicated their source of information as published materials, local administration, or media had a greater than expected percentage with a positive opinion of the National Board Certification (40.3%, 51.6%, and 53.3%, respectively with the expected as 31.8%).

Each of the first four research questions was answered through the hypotheses tests discussed above. Research question five “What do the respondents consider their level of awareness concerning the National Board Certification process?” was answered

through the responses provided by 444 respondents (99.2%). Most consider themselves poorly informed (n=303, or 68.2%) about the certification process. Twenty-seven percent (n=120) consider themselves moderately informed, and a very small percentage (n=21, or 4.7%) consider themselves well informed.

Research question six “Do the respondents have an overall opinion of the National Board Certification program that is negative or positive?” was answered through the responses to a single question. A negative opinion was prevalent (61.7%) while a positive opinion was in the minority (38.3%). A number of respondents did not answer this question (n=116 or 26% of all respondents). The population studied might well be expected to have a negative opinion of the program. They are eligible through certification and experience to attain National Board Certification, but they have not done so. This study addresses why this may be so through the identification of barriers to such attainment.

Research question seven “Which barriers are most problematic to respondents?” was answered through the mean barrier subscale scores for all respondents (provided in Table 15). Each subscale was significantly different (using a t-test for dependent means) from the others unless the difference in the mean barrier scores was 0.10 or less. The most problematic barrier was the Personal Obstacles Barrier, indicated with a mean of 4.048 on a scale of 1 to 5. Only one barrier had a low score. This was the Financial Considerations Barrier (3.000) that may not be a barrier at all. In descending order the barriers were Personal Obstacles (4.048), Teaching Professionalism (3.908), Teacher Morale (3.737), Evaluation Process (3.563), and Financial Considerations (3.000).

The most problematic barrier involved Personal Obstacles. This indicates that the worry and tension involved and the time required is thought of as being so overwhelming that participation in the certification process is not a viable option. Many respondents commented on the amount of time required by their job and that anything beyond was not worth the stress and pressure that attempting National Board Certification would cause.

Teaching Professionalism was next in order of difficulty. This points out that teachers believe that the teaching profession will not benefit from The National Board for Professional Teaching Standards. They believe that the National Board Certification has not benefited their profession and has not added value to it. Teachers do not see the value of the program for their system or education in general. The program is not seen as a conduit for improvement of schools.

Following the Teaching Professionalism barrier is the Teacher Morale barrier. There is agreement with the concept that participation is in some ways detrimental to faculty camaraderie creating unhealthy competition. There was also agreement that participation is in some ways politically oriented and thus creates faculty discord. This concept was expressed repeatedly in the open-ended request for comments. This barrier also indicates that teachers do not believe the certification improves them professionally. They therefore, do not see, from a professional point of view, the value of participation.

The Evaluation Procedures barrier was next in line. Many educators indicated that The National Board for Professional Teaching Standards' processes required to participate are too prohibitive. The amount of extra work was cited. Many teachers also stated that the process of evaluation is not equally fair to everyone and does not

identify –nor can it identify – the true worth of a teacher. Their view is that teaching is so many intangibles that the National Board for Professional Teaching Standards cannot possibly measure them.

Financial Considerations was the final barrier and was supplemented with written comments. In essence, the acquisition of another certificate does not provide enough of an incentive for participation. However, this barrier had a mean score of 3.0. This may lead to questioning whether financial considerations is in fact a barrier at all.

### Conclusions

Based upon the results of this study, the following conclusions are posited:

1. Of the five barriers put forth, at least four are perceived to be problematic (by virtue of a mean score of 3.5 or above on a scale of 1 to 5). These are, in order from the greatest barrier to the least, Personal Obstacles, Teaching Professionalism, Teacher Morale, and Evaluation Procedures. One of the barriers tested, Financial Considerations, may not be a barrier at all because the mean score was 3.0 on a scale of 1 to 5.
2. Significant differences regarding the barriers exist between different groups. Differences were found based on factors such as whether the respondent plans to or does not plan to attempt certification, or is unsure about attempting certification, age, gender, years teaching experience, job assignment, and administrative support. Differences did not exist based on education level.

3. An overall negative opinion of the National Board for Professional Teaching Standards was expressed by 62% of the respondents. Over 56% of the respondents indicated that they would not attempt to gain National Board Certification, 38% were unsure, with only 5% indicating that they would attempt certification.

4. A large majority of educators who are eligible for National Board Certification hold a negative opinion of the certification and, therefore, do not support it. Comments expressed by teachers include the following quotes from surveys:

“Successfully gaining National Board Certification proves only that one can ‘play the game’. “I paid college tuition and gained a teaching certificate, now someone wants to tell me that I need another certificate that says I am a teacher? A certificate which costs me but doesn’t increase my salary? That doesn’t make sense to me.” “All I see is extra work, stress, worry, anxiety, and pressure.” “More work, same pay – no thanks.” “Many wonderful teachers are not interested in applying for National Board Certification due to the stress involved in the process.” “National Board Certification is an ego building trip that I don’t need.” “The National Board for Professional Teaching Standards recognizes endurance rather than teaching.” “The only teachers that are persistent enough to gain National Board Certification are those that don’t have a life.” “The National Board for Professional Teaching Standards was conceived by those with an agenda...just like the Career Ladder provided Lamar Alexander with the

recognition he needed in politics.” “I love teaching and I want to be the best teacher I can possibly be, but how can I work 7 to 10 hours a day at school and then put in the 120 to 200 hours needed for the National Board Certification process, and that is just for the portfolio alone! Professionally, how can anyone do that? Would you want your child in that teacher’s room?” “It’s another “dog and pony” show.”

5. The Personal Obstacles Barrier is the most problematic barrier in a hierarchical ranking of barriers. The Financial Considerations Barrier is the least problematic in the rankings. This indicates that the personal time and stress involved in the achievement of the National Board Certification is perceived to be prohibitive. As one teacher stated, “As it is, my job already consumes my life. I do not want to work more hours to earn a piece of paper that says I am a good teacher.” Another teacher who had taught 18 years said, “I already spend more time working with other peoples’ children than I do with my own family.” Others commented that, “It takes too much personal time” and “I put a ton of energy into my job, what’s left goes to my family. They won’t stand for anything less.” The encouragement of educators by administrators to participate in National Board Certification does not seem to be a significant barrier.

6. Because the educators surveyed are eligible to apply for National Board Certification – but have not – one may conclude that the barriers identified in this study are factors keeping them from participation. Because the barriers are thought of by these educators as being prohibitive, then they actually become

prohibitive. However, one may conclude that these barriers would not actually be prohibitive if the respondents did not perceive them to be so. For example, many respondents commented on the costs of the certification. Paying for another certificate and spending time on acquiring a certificate and not getting an increase in pay was often mentioned. In reality, teachers have an opportunity to receive a federal subsidy from the Tennessee Department of Education that has been allocated to cover partial costs of the certification process. Therefore, the Financial Considerations may be perceived as a barrier, when in reality it may not be a barrier.

7. Teacher Morale may be viewed as a problem because the very process of being evaluated may be perceived as demeaning, humiliating, or detrimental to the respondent. This could impact not only the individual's morale, but would likely impact the morale of educators with which he or she works. It is possible that the National Board Certification process is seen to foster competition and win/lose situations, thus negatively impacting morale.

8. Educators who do not plan to attempt National Board Certification may feel that they can justify that decision by citing the overwhelming difficulty of the evaluation process itself, the lack of financial rewards, and the thought that the certificate would not validate their teaching. This group also indicates that attempting National Board Certification would not help them professionally and may actually create an atmosphere that is detrimental to morale. Those who do not plan to attempt certification may simply be overwhelmed by their perceptions

of the process barriers.

9. There are significant differences between age groups in viewing the impact of attempting National Board Certification on the teaching field as well as on the professionalism of the individual educator. Older teachers view these as greater barriers than do younger teachers. Perhaps older teachers believe that at this point in their life their teaching has already been validated and that there is no real benefit to themselves or the profession. Younger teachers may believe that the “jury is still out” on the benefits of National Board Certification.

10. Males may identify the teacher morale barrier as higher because the majority of administrators are male and they may be perceived as being in “competition” with the administrators. Males may also feel that administrators would not feel the need to encourage or help them as much since they are seen as being more likely to “take care of themselves”. Females may view financial considerations as a greater barrier simply because their salary is already low in comparison to other professionals and to males in general. This may indicate a desire on their part for financial reward as an incentive to attain National Board Certification.

11. All eligible educators view the barriers in essentially the same manner. Although job assignments differ, educators are united in the business of education. This commonality may ensure an eventual but certain uniformity of mind set toward National Board Certification. The logistics of the job mean that teaching colleagues, local administration, and professional literature contribute

information to all educators concerning the program in a relatively equal way.

12. More experienced teachers are more likely to be older teachers.

These teachers, as in hypothesis two, have worked within the system longer.

Because of what they consider to be the wisdom of experience, they may believe that they understand the National Board Certification process and its demands more fully than their younger counterparts who may be more willing to experiment. Older educators may be less likely to change the status quo and more likely to be satisfied where they are until retirement.

13. The fact that the majority of respondents considered themselves to be poorly informed may indicate that the National Board Certification has not created interest simply because they have not gotten the message out to the educators. It may be that teachers have read and heard only about the “requirements” for certification and not about the positive aspects such as license portability, state provided partial fee payment, and professional incentives. A more aggressive public relations play by the Tennessee Department of Education, through local administration and literature could provide a positive impact on educators concerning their views of National Board Certification. This is linked to the findings in research question seven which indicated that those respondents that agreed that the principal encouraged participation in National Board Certification were more likely to have a positive opinion of the program.

Educators, according to this, do not think their principals hinder them from being successful in the certification process, and in fact, may be a positive force upon

them.

### Recommendations

Based upon the results of this study, the following recommendations are proposed:

1. Because a large majority of eligible educators hold a negative view of the National Board Certification, an effort should be made by The National Board for Professional Teaching Standards to reverse this trend. The perceived barriers in this study should be addressed by the National Board for Professional Teaching Standards and solutions should be developed to alleviate the concerns indicated by the population of educators. According to this study, positive opinions are more readily effected through local administration and published materials. A more focused effort should be attempted to disperse positive information about the certification program through these sources.
2. The barriers identified in this study may be described as justifications or excuses rather than barriers. Respondents may, based their experience with the Tennessee Career Ladder, chose not to participate because of past failure. A study is needed to determine the extent to which fear of failure is the catalyst for all barriers to participation.
3. The National Board assessment differs from other national exams (i.e.law, medicine, and business) in one important aspect: while published study guides and practice tests are widely available for other examinations, applicants for the

National Board Certification depend primarily on the support services offered on a voluntary basis by local school districts and universities. These services are available in relatively few jurisdictions and they vary widely in quality. The creation of high-quality preparatory materials would be an important contribution to equitable participation in National Board Certification.

4. A large number of eligible teachers indicated that they considered themselves poorly informed concerning National Board Certification. Additionally, many respondents commented negatively concerning the cost of the National Board Certification process. The Tennessee State Department of Education should make a bolder effort to inform its teachers of the support available from the state in terms of financial support and supporting activities.

5. A large number of neighboring states have offered financial incentives to teachers. Those states have impressive numbers of National Board Certified teachers. Financial incentives can be expected to increase both the participation rate and the success rate. There should be salary increases for teachers who obtain advanced certification through the National Board for Professional Teaching Standards.

6. Further research is needed to assess the impact of the certification process on the quality of teaching. If the findings turn out to be positive, states and school systems will have stronger reason for allocating resources to encourage teacher participation and for granting reciprocity to teachers from other states who have achieved National Board Certification.

7. If the National Board Certification program truly provides a professionally credible recognition of accomplished teaching, institutions of higher education should implement the National Board Certification into their advanced degree program. Higher education should review its teacher-training programs and respond quickly to the changes that are affecting teaching.

## REFERENCES

- American college dictionary* (4<sup>th</sup> ed.). (1963). New York: Random House.
- Archibold, R. C. (1998, September 13). How schools measure the talent to teach. *New York Times*, Late Edition (East Coast), 4, 4.
- Ballou, F., & Podgursky, M. (1998). *Teacher pay for teacher quality*. Kalamazoo, MI: W.E. Upjohn Institution for Employment Research.
- Basinger, J. (1998). Colleges widen alternate routes to teacher certification. *Chronicle of Higher Education*, 46, 18-19.
- Bonstinge, J. J. (1992, March). The total quality classroom. *Educational Leadership*, 66-70.
- Borg, W. R., & Gall, M. D. (1989). *Education research: An introduction* (5<sup>th</sup> ed.). New York, NY: Longman.
- Bowden, H. R. (1980). *The costs of higher education: How much do colleges and universities spend per student and how much should they spend?* San Francisco, CA: Jossey-Bass.
- Bradley, A. (1999). Zeroing in on teachers. *Education Week*, 18, 46-47.
- Bradley, A., & Archer, J. (1998). AFT and NEA ponder unions' role in teacher quality. *Education Week*, 17, 19.
- Browne, B., Auton, S., Freund, M., & Futrell, M. H. (1999). Meeting the millennium challenge: National board for professional teaching standards partnerships supporting the teaching profession. *Teaching and Change*, 6, 364-375.
- Calhoun, F. S., & Protheroe, N. J. (1983). *Merit pay plans for teachers: Status and descriptions*. Arlington, VA: Educational Research Service.
- Carnegie Forum on Education and the Economy, Task Force on Teaching as a Profession. (1986). *A nation prepared: Teachers for the 21<sup>st</sup> century*. New York, NY: Author.
- Chase, B. (2000, February). Tests and sensibility. *NEA Today*, 5.
- Chase, B., & Gross, M. L. (1999). Are America's teachers well-qualified to teach our

- Insight on the News*, 15, 40-43.
- Curtiss, C. (1998). Losing the art of teaching to the science of instruction. *Education Week*, 18, 30.
- Deming, W. E. (1988). *Out of the crisis*. Cambridge, MA: Massachusetts Institute of Technology.
- DeVillis, R. F. (1991). *Scale development theory and applications*. Newbury Park, NY: Sage.
- Diez, M. E., & Blackwell, P. (1999). Improving master's education for practicing teachers: The impact of the national board for professional teaching standards. *Teaching and Change*, 6, 350-363.
- Ebmeier, H., Twombly, S., & Teeter, D. J. (1991). The comparability and adequacy of financial support for schools of education. *Journal of Teacher Education*, 42, 226-235.
- Fagan, C. (2001). Teacher information on nbpts. Available e-mail: Tennessee public school principals@ten-nash.ten.k12.tn.us from cfagan@mail.state.tn.us, April 20, 2001.
- Feldman, S. (1998). Ignoring standards. *Education Week*, 18, 54.
- Ferguson, R. F. (1991). Paying for public education: New evidence of how and why money matters. *Harvard Journal on Legislation*, 28, 465-498.
- Fitz-Gibbon, C. & Morris, L. (1987). *How to design program evaluation*. Newberry Park, NY: Sage.
- Fournier, R. (2002, January 9). Reforms are broadest made in nearly 40 years. *The Knoxville News-Sentinel*, p. A2.
- Fullan, M., & Stiegelbauer, S. (1991). *The new meaning of educational change*. New York, NY: Teacher's College Press.
- Gergen, D. (1999). The case for quality: It would be folly to turn back on educational standards now. *U.S. News & World Report*, 127, 104.
- Gorman, S. (1999). How should teachers be evaluated? *National Journal*, 31, 3479-3480.

- Greenwald, R. L., Hedges, L. V., & Laine, R. D. (1996). The effect of school resources on student achievement. *Review of Educational Research*, 66, 361-396.
- Hample, S. R. (1980). *Cost studies in higher education* (Air Professional File No. 7). Tallahassee, FL: Association for Institutional Research.
- Helms, R. G. (1999). Social studies assessment: The role of the national board for professional teaching standards. *Social Education*, 63(6), 378-381.
- Henry, G. T. (1991). *Practical sampling*. Newbury Park, NY: Sage.
- Hettinger, J. (1998). Funding spared for teaching standards board. *Techniques*, 73(7), 6.
- Howard, R., Hitz, R., & Baker, L. (1997). Adequacy and allocation within higher education: Funding the work of education schools. *Educational Policy*, 14, 145-160.
- Hughes, J. P., & Watkins, J. F. (1972, March). Accountability in schools of education. *School and Society*, 100, 159.
- Ingersoll, R. (1996a). *Out-of-field teaching and educational equality*. (NCES 96-040). United States Department of Education. Washington, DC: United States Government Printing Office.
- Ingersoll, R. (1996b). *National assessment of teacher quality*. (NCES 96-24). United States Department of Education. Washington, DC: NCES Working Paper.
- Jennings, J. F. (1999). Invited commentary: Better policies leading to improved teaching. *Education Statistics Quarterly*, 1, 12-14.
- Janofsky, M. (1999, September 10). For Denver teachers, a pay-for-performance plan. *New York Times*, (Late Edition East Coast), A1, 16.
- Kelly, B. (1999). National board for professional teaching standards: Accomplished teaching through national board certification. *Teaching and Change*, 6, 339-345.
- Kindall, A. F. (1969). *Personnel Administration: Principals and cases* (3<sup>rd</sup> ed.). Georgetown, Ontario, Canada: Richard D. Irwin.
- Kopp, W. (1999, August/September). Teach for America. *Teacher*, 43.
- Lewis, L., Parsad, B., Carey, N., Bartfai, N., Farris, E., & Simerdon, B. (1999). Teacher

- quality: A report on the preparation and qualifications of public school teachers. *Education Statistics Quarterly*, 1, 7-11.
- Marzano, R. J., & Kendall, J. S. (1996). *A comprehensive guide to designing standards-based districts, schools, and classrooms*. Aurora, CO: Mid-Continent Regional Education Lab.
- Morrow, J. (2000, January). Brain drain. *Teacher Magazine*, 49-50.
- Mickler, M. L. (1987, May). Merit pay: Boon or boondoggle? *The Clearing House*, 61, 137-141.
- Morris, J. E. (1971, February). Accountability: Watchword for the 70's. *The Clearing House*, 45, 323.
- Moss, P. A., & Schutz, A. (1999). Risking frankness in educational assessment. *Phi Delta Kappan*, 80, 668-695.
- Murray, F. B. (2000). The role of accreditation reform in teacher education. *Educational Policy*, 14, 40-59.
- Norusis, M. J. (1998). *Statistical package for the social science, p. c. version* (computer program). Chicago, IL: SPSS.
- National Board for Professional Teaching Standards. (1994). *What teachers should know and be able to do*. Detroit, MI: Author.
- National Board for Professional Teaching Standards. (1998). *Guide to National Board Certification*. (p. 29). Southfield, MI: National Board for Professional Teaching Standards.
- National Board for Professional Teaching Standards. (2001). *News center*. Retrieved April 25, 2002 from the World Wide Web: <http://www.nbpts.org>
- National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: Author.
- National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's future*. New York, NY: Author.
- Olson, L. (1999). Rating the standards. *Education Week*, 18, 10 & 107-109.
- Office of Educational Research and Improvement. (1996). *Studies in educational reform*. Washington, DC: U. S. Department of Education.

- Porter, A. C. (1993). School delivery standards. *Educational Researcher*, 22, 24-30.
- Public agenda: Reality check. (1999). *Education Week*, 18, 102-105.
- Quality counts: Public education in the 50 states (Special Supplement). (1998).  
*Education Week*, 17, 1-101.
- Quality counts 2000. (2000). Tennessee. *Education Week*, 19, 153.
- Ravitch, D. (1998, August 10). Lesson plan for teachers. *The Washington Post*, p. A17.
- Reading Today. (2001). *National board booms*. Feb/March 2001, 6.
- Riley, R. (1998). *The challenge for America: a high quality teacher in every classroom*.  
The Annual Back to School Address to the National Press Club by the United  
States Secretary of Education. Retrieved October 26, 2000 from the World Wide  
Web: <http://www.ed.gov/Speeches/980915.html>
- Rotberg, I. C., Futrell, M. H., & Holmes, A. E. (2000). Increasing access to national  
board certification. *Phi Delta Kappan*, 81, 379-383.
- Rotberg, I., Furtell, M., & Lieberman, J. (1998). National board certification:  
Increasing participation and assessing impacts. *Phi Delta Kappan*, 79, 462-466.
- Rose, M. (1999). National board for professional teaching standards: raising the bar.  
*The Education Digest*, 64, 24-28.
- Sanders, W., & Rivers, J. (1996). Cumulative and residual effects of teachers on future  
student academic achievement. *Knoxville, TN: University of Tennessee Value-  
Added Research and Development Center*.
- Scheaffer R. L., Mendenhall W., & Ott L. (1986). *Elementary survey sampling* (3<sup>rd</sup>  
ed.). Boston, MA: Duxbury.
- Shapiro, B. C. (1995). Streamlined seminar. *NEA Today* 13, 6-9.
- Siciliano, G., Jurs, J., Ashby, T., & Weibke, K. (1999). National Board Certification: A  
collaborative effort. *Teaching and Change*, 6, 376-386.
- Silber, J. (1999, August/September). Power pols. *Teacher*, 65.
- Smetanka, M. U., & Pinney, G. (1992, October 11). Fixing education: How much

- difference can a president really make? *The Knoxville News-Sentinel*, p. F1.
- The Holmes Group. (1986). *Tomorrow's teachers*. East Lansing, MI: Author.
- Teacher Quality. (1999, February). *National Center for Education Statistics*. Retrieved November, 2000 from the World Wide Web: <http://nces.ed.gov>.
- Tennessee State Department of Education. (1992). *School systems and districts 1991-1992, Tennessee blue book of the state*. Nashville, TN: Author.
- Tennessee State Department of Education. (2001-Online). Retrieved May 4, 2001 from the World Wide Web: <http://www.state.tn.us/education/conbcert.htm>
- Tingley S. (1999). Weighing the cattle: Is a public shaming really needed for accountability? *Education Week*, 18, 44.
- Toppo, G. (2001, December19). U.S. senate passes education overhaul. *The Knoxville News-Sentinel*, pp. A1, A12.
- Urbanski, A., & Erskine, R. (2000). School reform, TURN, and teacher compensation. *Phi Delta Kappan*, 81, 367-370.
- Walters, D. L. (1981). *Financial analysis for academic units*, (AAHE\_ERIC/Higher Education Research Report No. 7). Washington, DC: American Association for Higher Education.
- Wise, A. (1998, Spring). NCATE 2000 will emphasize candidate performance. *Quality Teaching: The Newsletter of the National Council for Accreditation of Teacher Education*, 7, 1.
- Yinger, R. J. (1987). Learning the language of practice. *Curriculum Inquiry*, 17, 294-295.
- Yinger, R. J. (1999). The role of standards in teaching and teacher education. In G. A. Griffin (Ed.), *The Education of Teachers. Ninety-eighth Yearbook of the National Society for the Study of Education*. Chicago, IL: National Society for the Study of Education.
- Yinger, R. J., & Hendricks-Lee, M. S. (2000). The language of standards and teacher education reform. *Educational Policy*, 14, 94-106.

APPENDIX A

National Board for Professional Teaching Standards Survey

The following information will only be used to classify responses by aggregate demographic groups.

BIRTHYEAR: \_\_\_\_\_

GENDER: MALE \_\_\_\_\_

FEMALE \_\_\_\_\_

JOB ASSIGNMENT (e.g., 3<sup>rd</sup> grade teacher) \_\_\_\_\_

TOTAL YEARS OF TEACHING EXPERIENCE: \_\_\_\_\_

HIGHEST EDUCATIONAL DEGREE ATTAINED:

Bachelor's degree \_\_\_\_\_

Master's degree \_\_\_\_\_

Specialist's degree \_\_\_\_\_

Doctoral degree \_\_\_\_\_

In the future, I plan to attempt to attain The National Board for Professional Teaching Standards certification.

Yes \_\_\_\_\_ No \_\_\_\_\_ Unsure \_\_\_\_\_

I have obtained most of my information about The National Board for

Professional Teaching Standards from (e.g., published materials, websites, other teachers)

---

I consider myself relatively well informed \_\_\_\_\_, moderately informed \_\_\_\_\_, poorly informed \_\_\_\_\_ about The National Board for Professional Teaching Standards certification process.

My overall opinion of The National Board for Professional Teaching Standards is

Positive \_\_\_\_\_ Negative \_\_\_\_\_

Please respond to the following statements concerning the National Board for Professional Teaching Standards certification. Throughout the survey the National Board for Professional Teaching Standards are referred to as NBPTS.

KEY: SA = STRONGLY AGREE  
 A = AGREE  
 U = UNSURE  
 D = DISAGREE  
 SD = STRONGLY DISAGREE

1. NBPTS offers a professional certification without a professional salary.....SA A U D SD
2. NBPTS causes discord among the faculty.....SA A U D SD
3. The evaluation process for NBPTS certification is valid.....SA A U D SD
4. The principal is apathetic to staff participation in NBPTS.....SA A U D SD
5. The steps to reach NBPTS certification are too complicated and hard to understand.....SA A U D SD
6. Updated information on NBPTS is readily available.....SA A U D SD
7. The process of NBPTS certification is too time consuming..... SA A U D SD
8. NBPTS represents more work without more pay.....SA A U D SD
9. There is encouragement by the principal for staff participation in NBPTS.....SA A U D SD
10. The evaluation for NBPTS certification is too difficult.....SA A U D SD
11. The evaluation process for NBPTS certification is fair.....SA A U D SD
12. NBPTS does not necessarily identify better teachers.....SA A U D SD
13. NBPTS deals with the reality of teaching..... SA A U D SD
14. The NBPTS concept that teaching should be closely aligned with other professions is proper.....SA A U D SD
15. Instruction will improve via evaluations as found in

- NBPTS.....SA A U D SD
16. There is no definition of what constitutes effective teaching which can be applied to NBPTS.....SA A U D SD
17. NBPTS causes the destruction of esprit de corps.....SA A U D SD
18. There is ostracism of teachers who participate in NBPTS.....SA A U D SD
19. NBPTS hinders the relationship between teachers and principals.....SA A U D SD
20. NBPTS does not improve teacher performance.....SA A U D SD
21. NBPTS isolates administrators from teachers.....SA A U D SD
22. NBPTS amplifies differences among teachers.....SA A U D SD
23. NBPTS is an incentive to get better qualified people to enter the teaching profession.....SA A U D SD
24. NBPTS helps keep better teachers in the classroom.....SA A U D SD
25. NBPTS certification is cost effective.....SA A U D SD
26. A salary based only on the amount of college preparation and teaching experience preserves mediocrity.....SA A U D SD
27. NBPTS lowers teacher morale.....SA A U D SD
28. Teaching styles differ so NBPTS evaluation is not equally fair to everyone.....SA A U D SD
29. NBPTS encourages study and professional improvement.....SA A U D SD
30. NBPTS promotes unhealthy competition and hostility.....SA A U D SD
31. NBPTS leads to principals displaying favoritism toward some teachers.....SA A U D SD
32. NBPTS increases enthusiasm for teaching.....SA A U D SD
33. NBPTS does not result in a burden of excessive paperwork.....SA A U D SD

- 34. NBPTS increases worry, nervous tension, and insecurity.....SA A U D SD
- 35. NBPTS motivates teachers to higher productivity.....SA A U D SD
- 36. NBPTS gives the best teachers recognition.....SA A U D SD
- 37. NBPTS improves the quality of teaching.....SA A U D SD
- 38. NBPTS takes too much personal time.....SA A U D SD

Thank you for taking the time to complete this survey, your help is appreciated!

## APPENDIX B

### Cover Letter for Cocke and Sevier Counties Survey

Jan Moore  
Seymour Middle School  
737 Boyds Creek Hwy.  
Seymour, TN 37865

March 19, 2001

Dear Colleague,

I am an educator in Sevier County and also a doctoral student at East Tennessee State University. I am working on a doctoral study concerning teacher attitudes toward The National Board for Professional Teaching Standards certification. I am conducting a survey sample of teachers in two counties of East Tennessee. You were randomly chosen by school to complete the enclosed survey.

Since I have over 20 years of teaching experience, I know you face an overwhelming daily workload. I would, however, greatly appreciate it if you would find the time to complete and return the enclosed survey within ten days. It should take less than 15 minutes to complete and can be placed in a designated collection box in the teachers' mailroom. Let me assure you that your identity will remain anonymous and that your responses will not be shared with any school personnel.

I must have a large return in order to generalize my findings to all teachers in the selected counties of East Tennessee. This is an opportunity for you to provide input regarding advanced teacher certification, so please participate by returning the survey promptly. If you have questions please contact either myself or Dr. Louise MacKay, Chairperson of Graduate Committee, East Tennessee State University.

Sincerely,

Jan Moore

## APPENDIX C

### Formula for Determining Sample Size

The formula for determining the sample size for estimating a population proportion as provided by Schaeffer, Mendenhall, and Ott (1986, p. 59) is:

$$n = \frac{Npq}{(N-1) D + pq}$$

$$\text{where } q = 1 - p \text{ and } D = \frac{B^2}{4}$$

## APPENDIX D

### Pilot Study Cover Letter and Instrument

January 3, 2001

Dear Colleague,

I am an educator in Sevier County. I am working on a doctoral study concerning teacher attitudes toward the National Board for Professional Teaching Standards. I intend to attempt a survey sample of several hundred teachers in selected counties of East Tennessee. Prior to doing so I am conducting a pilot test of the survey form which I will use. The purpose of this pilot test is to refine the survey before its final use.

Since I have over 20 years of teaching experience, I know you face an overwhelming daily work load. I would, however, greatly appreciate it if you would find the time to complete and return the enclosed survey within ten days. Please help me by returning the survey promptly. It should take less than 15 minutes to complete.

Please provide your name on the form, so that I can avoid sending you another survey form during the next phase of the study. Your responses will, of course, remain anonymous. If you have questions please contact either myself or Dr. Louise MacKay, Chairperson of Graduate Committee, East Tennessee State University.

Sincerely,

Jan Moore

Please respond to the following statements concerning the National Board for Professional Teaching Standards. Throughout the survey the National Board for Professional Teaching Standards are referred to as NBPTS.

KEY: SA = STRONGLY AGREE  
 A = AGREE  
 U = UNSURE  
 D = DISAGREE  
 SD = STRONGLY DISAGREE

1. NBPTS offers a professional certification without a professional salary.....SA A U D SD
2. NBPTS causes discord among the faculty.....SA A U D SD
3. The evaluation process for NBPTS certification is valid.....SA A U D SD
4. The principal is apathetic to staff participation in NBPTS.....SA A U D SD
5. The steps to reach NBPTS certification are too complicated and hard to understand.....SA A U D SD
6. Updated information on NBPTS is readily available.....SA A U D SD
7. There is no long range professional growth associated with NBPTS.....SA A U D SD
8. The process of NBPTS certification is too time consuming.....SA A U D SD
9. NBPTS represents more work without more pay.....SA A U D SD
10. There is encouragement by the principal for staff participation in NBPTS.....SA A U D SD
11. The evaluation for NBPTS certification is too difficult.....SA A U D SD
12. The evaluation process for NBPTS certification is fair.....SA A U D SD
13. NBPTS does not necessarily identify better teachers.....SA A U D SD
14. NBPTS deals with the reality of teaching.....SA A U D SD
15. The NBPTS concept that teaching should closely aligned with other professions is proper.....SA A U D SD

16. Instruction will improve via evaluations as found in NBPTS.....SA A U D SD
17. There is no definition of what constitutes effective teaching which can be applied to NBPTS.....SA A U D SD
18. NBPTS causes the destruction of esprit de corps.....SA A U D SD
19. There is ostracism of teachers who participate in NBPTS.....SA A U D SD
20. NBPTS does not improve teacher performance.....SA A U D SD
21. NBPTS is a prime motivator for teachers.....SA A U D SD
22. NBPTS isolates administrators from teachers.....SA A U D SD
23. NBPTS amplifies differences among teachers.....SA A U D SD
24. NBPTS is an incentive to get better qualified people to enter the teaching profession.....SA A U D SD
25. NBPTS helps keep better teachers in the classroom.....SA A U D SD
26. NBPTS does not promote teacher competency.....SA A U D SD
27. NBPTS certification is cost effective.....SA A U D SD
28. A salary based only on the amount of college preparation and teaching experience preserves mediocrity.....SA A U D SD
29. NBPTS lowers teacher morale.....SA A U D SD
30. Teaching styles differ so NBPTS evaluation is not equally fair to everyone.....SA A U D SD
31. NBPTS encourages study and professional improvement.....SA A U D SD
32. NBPTS promotes unhealthy competition and hostility.....SA A U D SD
33. NBPTS leads to principals displaying favoritism toward some teachers.....SA A U D SD
34. NBPTS stifles innovation.....SA A U D SD

- 35. NBPTS increases enthusiasm for teaching.....SA A U D SD
- 36. NBPTS utilizes the full potential of the teacher.....SA A U D SD
- 37. NBPTS distracts from instructional efforts.....SA A U D SD
- 38. NBPTS does not result in a burden of excessive paperwork.....SA A U D SD
- 39. NBPTS increases worry, nervous tension, and insecurity.....SA A U D SD
- 40. NBPTS motivates teachers to higher productivity.....SA A U D SD
- 41. NBPTS gives the best teachers recognition.....SA A U D SD
- 42. NBPTS improves the quality of teaching.....SA A U D SD
- 43. NBPTS takes too much personal time.....SA A U D SD

Thank you for taking the time to complete this survey, your help is appreciated!

## APPENDIX E

### Reverse Coded Statements and Table 4

The following statements concerning The National Board for Professional Teaching Standards were stated in a positive nature on the survey and then reverse coded for data analysis. Thus the higher the mean score, the greater a perceived barrier to National Board Certification participation.

Statement 2

Statement 5

Statement 8

Statement 10

Statement 12

Statement 14

Statement 16

Statement 18

Statement 21

Statement 23

Statement 25

Statement 27

Statement 29

Statement 31

Statement 33

Statement 35

Statement 37

Reverse coded as (5=1) (4=2) (2=4) (1=5).

Table 4

Mean Scores After Reverse Coding

Statement	Mean (after reverse coding)
1 NBPTS offers a professional certification without a professional salary.	3.75
2. The evaluation process for NBPTS certification is valid. (Score reflects reverse of this concept)	2.85
3. NBPTS causes discord among the faculty.	2.95
4. The principal is apathetic to staff participation in NBPTS.	2.94
5. Updated information on NBPTS is readily available. (Score reflects reverse of this concept)	3.18
6. The steps to reach NBPTS certification are too complicated and hard to understand.	3.27
7. The process of NBPTS certification is too time consuming.	3.73
8. NBPTS deals with the reality of teaching. (Score reflects reverse of this concept)	3.21
9. NBPTS represents more work without more pay.	3.87
10. There is encouragement by the principal for staff participation in NBPTS. (Score reflects reverse of this concept)	3.62
11. The evaluation for NBPTS certification is too difficult.	3.23
12. The evaluation process for NBPTS certification is fair. (Score reflects reverse of this concept)	3.06
13. NBPTS does not necessarily identify better teachers.	3.98

Note: The higher the score, the more problematic is the concept presented in the statement in encouraging National Board Certification participation. A high score indicates the concept presented in the statement is a barrier to National Board Certification participation.

Table 4 – continued

Mean Scores for Survey Statements 1-38

Statement	Mean (after reverse coding)
14. The NBPTS concept that teaching should be closely aligned with other professions is proper. (Score reflects reverse of this concept)	2.29
15. There is no definition of what constitutes effective teaching which can be applied to NBPTS.	3.22
16. Instruction will improve via evaluations as found in NBPTS. (Score reflects reverse of this concept)	3.29
17. NBPTS causes the destruction of esprit de corps.	2.96
18. NBPTS is an incentive to get better qualified people to enter the teaching profession. (Score reflects reverse of this concept)	3.51
19. There is ostracism of teachers who participate in NBPTS.	2.77
20. NBPTS hinders the relationship between teachers and principals.	2.72
21. NBPTS helps keep better teachers in the classroom. (Score reflects reverse of this concept)	3.46
22. NBPTS does not improve teacher performance.	3.32
23. NBPTS certification is cost effective. (Score reflects reverse of this concept)	3.74
24. NBPTS isolates administrators from teachers.	2.69

Note: The higher the score, the more problematic is the concept presented in the statement in encouraging National Board Certification participation. A high score indicates the concept presented in the statement is a barrier to National Board Certification participation.

Table 4 - continued

Mean Scores for Survey Statements 1-38

Statement	Mean (after reverse coding)
24. A salary based only on the amount of college preparation and teaching experience preserves mediocrity. (Score reflects reverse of this concept)	3.37
26. NBPTS amplifies differences among teachers.	3.00
27. NBPTS improves the quality of teaching. (Score reflects reverse of this concept)	3.34
28. NBPTS lowers teacher morale.	2.85
29. NBPTS gives the best teachers recognition. (Score reflects reverse of this concept)	3.60
30. Teaching styles differ so NBPTS evaluation is not equally fair to everyone.	3.52
31. NBPTS encourages study and professional improvement. (Score reflects reverse of this concept)	2.50
32. NBPTS promotes unhealthy competition and hostility.	2.79
33. NBPTS increases enthusiasm for teaching. (Score reflects reverse of this concept)	3.36
34. NBPTS leads to principals displaying favoritism toward some teachers.	2.88
35. NBPTS does not result in a burden of excessive paperwork (Score reflects reverse of this concept)	3.71

Note: The higher the score, the more problematic is the concept presented in the statement in encouraging National Board Certification participation. A high score indicates the concept presented in the statement is a barrier to National Board Certification participation.

Table 4 - continued

Mean Scores for Survey Statements 1-38

Statement	Mean (after reverse coding)
36. NBPTS increases worry, nervous tension, and insecurity.	3.30
37. NBPTS motivates teachers to higher productivity. (Score reflects reverse of this concept)	3.20
38. NBPTS takes too much personal time.	3.80

## VITA

### JANNESE WOODARD MOORE

- Personal Data: Date of Birth: July 4,  
Place of Birth: Dayton, Tennessee
- Education: Public Schools, Dayton, Tennessee  
Lee University, Cleveland, Tennessee; elementary education,  
B. S., 1979  
University of Tennessee, Knoxville, Tennessee; supervision  
and administration, M.S., 1985  
Lincoln Memorial University, Harrogate, Tennessee; supervision  
and administration, Ed.S., 1995  
East Tennessee State University, Johnson City, Tennessee;  
education leadership, Ed.D., 2002
- Professional  
Experience: Teacher, Sevier County Schools; Sevierville, Tennessee,  
1979-1985  
Teacher, Newberry County Schools; Newberry, South Carolina,  
1985-1988  
Teacher, Chatham County Schools; Savannah, Georgia,  
1988-1991  
Teacher, White County Schools; Sparta, Tennessee, 1991-1994  
Teacher, Blount County Schools; Maryville, Tennessee, 1994-  
1997  
Teacher, Sevier County Schools; Sevierville, Tennessee, 1997-  
2002  
Assistant Principal, Sevier County Schools; Sevierville, Tennessee, 2002-  
2003
- Honors and  
Awards: White County Junior High Teacher of the Year, 1992 and 1993  
Seymour Middle School Teacher of the Year, 2000  
Target Teacher Scholarship, 2000  
The Delta Kappa Gamma Society International Scholarship, 2001
- Professional  
Memberships: Tennessee Association of Middle Schools  
Association for Supervision and Curriculum Development  
Delta Kappa Gamma  
Phi Kappa Phi