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The Current State of Professional Development in Appalachia

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THE CURRENT STATE OF PROFESSIONAL DEVELOPMENT IN APPALACHIA

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Dissertation submitted to the Faculty of the
Marshall University Graduate College
in partial fulfillment of the
requirements for the degree of

Doctor of Education
In
Educational Leadership

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Huntington, West Virginia, 2009

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ABSTRACT

The Current State of Professional Development in Appalachia

Tied to the current federal legislation, the No Child Left Behind Act (NCLB), and all the national influences on American Education which have come before is the need for teachers to receive high-quality professional development. Approximately 5,500 National Board Certified Teachers (NBCTs) work in the 13 states that lie along the Appalachian Mountain Region of the United States. To complete this study, a stratified random sample was performed with 650 NBCTs contacted by mail. They were asked to complete and return *The Beck's Professional Development Inventory* (BPD). In order to analyze the data and to determine if statistical significance was achieved, Chi-square and Kruskal-Wallis nonparametric tests were performed.

The goal of this study was to determine if the NBCTs working in Appalachia perceive receiving high-quality professional development activities as defined by Title IX, Section 9101 (34)A of the No Child Left Behind legislation. The Chi-square statistic confirmed the participants' distribution of frequencies did not occur by chance and that their perceptions did have a pattern of preference. Statistical significance was attained at $p < .05$ with a probability level of .000.

The Chi-square frequencies that resulted from participant responses revealed a variety of teacher perceptions in the occurrence of the 18 activities. Of those persons responding, 72% perceived their professional development activities were aligned with and directly related to state academic content standards, student academic achievement standards, and assessments. While 56% perceived professional development activities as having improved and increased their knowledge of the academic subjects they teach only 42% perceived professional development activities as high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom. Respondents perceived professional development activities as being developed with extensive participation of teachers and providing the opportunity to improve classroom management skills occurring merely 36% of the time.

DEDICATION

This work is dedicated to my family whose love, support and encouragement have sustained me through this process: my dear husband and best friend, Jim and my lovely mother, Sue Ann. Thank you both for your patience, many personal sacrifices, guiding words, and most of all for being my greatest cheerleaders. You always showed faith in my ability to complete this journey. My success is because of you!

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I would like to acknowledge my former Superintendent of Schools, Mr. Steve Pauley, for his recognizing my leadership qualities and for having the faith in my abilities to serve the students and staff in my local school district. Mr. Pauley instilled in me to always do what is best for the students. Finally, thank you to Mr. John Hudson who has been my mentor and role-model in having high expectations and always striving to do my best as an educator.

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CHAPTER ONE: INTRODUCTION

“The No Child Left Behind (NCLB) Act legislated sweeping changes for public education in the United States. The legislation has had a broad impact on elementary and secondary education” (International Reading Assoc., 2005, p.1). State school systems, local districts, principals, and teachers throughout the nation have felt the consequences and outcomes of this legislation. The goal of this study was to determine if educational leaders are providing high-quality professional development to assist teachers in meeting the mandates and changes associated with NCLB.

Background

In an article for *Reading Today* (2007), a journal published by the International Reading Association (IRA), the 2007 State Teachers of the Year spoke out on NCLB as they gathered in Washington, D.C. to be honored for their accomplishments. “I applaud the president’s initiative to put education at the top of his policy agenda. I’ve been waiting for that throughout my career,” said Marguerite Izzo, a fifth-grade teacher and New York’s 2007 State Teacher of the Year. “The intent was admirable, but some of the means to the end are not so admirable,” said Lois Rebich, the Pennsylvania State Teacher of the Year. She continued, “For those of us who are in the front line and who didn’t have any say in it, we felt that had we been asked for our input, it would have been more palatable for educators across the country” (International Reading Association, 2007, p. 1).

Several state teachers cited heavy testing, punitive measures against schools, along with extra pressure on both teachers and students, as negative aspects of NCLB. The 2007 California State Teacher of the Year, Alan Sitomer, said, “It’s almost like

public shaming is the tool to motivate us to perform better” (International Reading Association, 2007, p. 10).

NCLB has mandated that teachers and school systems must improve student achievement levels. In many instances, change is necessary and this is very frustrating for the parties involved. Schmoker (2006) stated that the system has created generations of talented, hardworking teachers engaged in inferior teaching practices. Research has shown that high quality instruction improves achievement and that children achieve when they experience great teaching (Marzano, 2003). Recognizing this, school leadership must enhance the knowledge and skills of every teacher in their district by providing additional training and high-quality professional development. One component of the NCLB legislation, Title IX, Section 9101 (34)A, provided a one and one-half page definition of professional development for educational leaders to follow when planning activities to increase teacher effectiveness.

William L. Sanders, from the University of Tennessee and the Value Added Research Assessment Center, found “the single biggest factor affecting academic growth of any population of youngsters is the effectiveness of the individual classroom teacher” (1999, p.1). He noted that top teachers facilitate excellent gains for students at all achievement levels. In an article for Blueprint Magazine, he substantiated “the answer to why children learn well or not isn't race, it isn't poverty, and it isn't even per-pupil expenditure at the elementary level. It's teachers, teachers, teachers!” (p.1)

In order to have the very best schools, districts and organizations will only improve “where the truth is told and the brutal facts are confronted” (Collins, p. 88). Marzano (2003) shared “it is clear that effective teachers have a profound influence on student achievement and ineffective teachers do not” (p. 75). Wright, Horn, and

Sanders (1997) noted more can be done to improve education by improving the effectiveness of teachers than by any other initiative. On the average, a student with the most effective teacher will produce gains of about 53% in student achievement over one year, whereas the least effective teachers produced achievement gains of about 14% over one year.

“If the effect of attending the class of one of the least effective teachers for a year is not debilitating enough, the cumulative effect can be devastating” (Marzano, 2003, p. 73). Over a three year period, the student with the most effective teachers will gain 83 student achievement percentile points and the student in the classrooms of ineffective teachers for this time period will likely only gain 29 percentile points (Wright, Horn, & Sanders, 1997).

Since it has been established that teachers make the greatest impact on student achievement, then educational leaders must be held responsible to provide support, technical assistance, and professional development to allow all teachers to become highly effective. This study examined the perceptions of teachers, specifically National Board Certified Teachers, regarding the current state of professional development as defined by Title IX, Section 9101 (34)A of the No Child Left Behind Act. They were also requested to share if they perceived experiencing changes in the QUANTITY and QUALITY of professional development offerings since the passage of NCLB. Finally, they were asked if they perceived the professional development opportunities as having improved the quality of their teaching and increased student learning.

National Influences on American Education

Since the mid 1950s, various factors and forces have led to an increased role of the federal government in education. Reviewing five decades of national influences on American Education, it was evident that the changes or initiatives in education had one of three constant influences. They were Presidential proposals, judicial rulings, or legislative action. Each influence had one of two goals in mind. To either instill equity for a particular subgroup of students or to raise academic standings in international comparisons. When examining the various political, social, cultural, and economic events occurring throughout the decades, one can visualize how these events have shaped and/or affected our nation's public school system.

American Education – 1950s

One clear example of a notable national influence, federal mandate, or policy affecting American education occurred in 1954 with the United States Supreme Court decision on school desegregation, *Brown v. the Board of Education of Topeka*. This landmark decision declared that state laws which established separate public schools for black and white students denied black children equal educational opportunities (Tanner & Tanner, 1990).

In October 1957 when the Sputnik satellite rocketed into space our government realized the expertise of our Russian counterparts in math and science. One year after this historical launch, the National Defense Education Act (NDEA) was passed. Marshall, Sears, and Schubert (2000) acknowledged this era began the comparisons of our children's academic levels to children's performance in other nations, and thus set

in motion federal government influence on our public schools and the education of our youth.

American Education – 1960s

The 1960s brought a closer look at the inequalities of our class system and in 1964, The Civil Rights Act became law. This law prohibited discrimination on the basis of race, color, sex, religion or national origin. With the societal concerns for our youth living in poverty, the Elementary and Secondary Education Act (ESEA) was passed by Congress under President Johnson in 1965. ESEA initiated such programs as Title I, Head Start, and bilingual education. Marshall et al. (2000) cited that for the first time federal government monies flowed into state and local school systems with a high number of youth living below the poverty line.

Furthermore, in 1966 the landmark Equality of Educational Opportunity report, commonly known as the Coleman Report, found that student achievement was influenced more by a student's and school's socioeconomic circumstances than by school quality. Author Coleman concluded that African-American children benefit from attending integrated schools and thus set the stage for school busing to achieve desegregation.

American Education – 1970s

Marshall et al. stated that with each and every decade, new concerns and policies emerged. This continued into the 1970s with Title IX of the Education Amendments of 1972 becoming law. "Though many people associate this law only with girls' and women's participation in sports, Title IX prohibits discrimination based on sex in all aspects of education" (Sass, 2005, p. 1).

Once again, a subgroup of our youth was not being provided with an appropriate education geared to their needs. The passage of the Education of All Handicapped Children Act, Public Law 94-142, assured a free and appropriate education for all handicapped children in the least restrictive environment (Tanner & Tanner, 1990). States were given until 1978, later extended to 1981, to fully implement the law.

American Education – 1980s

Presidential actions and federal policy have had a significant impact on America's schools and children. In 1980, President Carter appointed Hufstedler as the first U.S. Secretary of Education. The *Nation at Risk Report* issued in 1983 called for sweeping changes in public education and teacher training; since then there has been strong national debate over how to improve our nation's schools and our students' achievement (MacPherson, 2003).

In *How We Got Here: The Evolution of Professional Learning*, the National Staff Development Council (NSDC) included on its timeline the year 1987 as being significant. The National Board for Professional Teaching Standards (NBPTS) began that year and worked to define what "accomplished teachers should know and be able to do." The timeline continued to the year 1989 to document the first National Education Summit "focusing the attention of the nation's top politicians on the state of American education" (Richardson, 2007).

American Education – 1990s

It seems as if each President over the past 25 years has proposed a broad education plan wishing to use schools as key institutions in creating both social and economic change for the United States (Austin, 1995). Following Reagan's "*A Nation at*

Risk,” was George H. Bush’s “*America 2000*,” Clinton’s “*Goals 2000*,” and now George W. Bush’s “*No Child Left Behind*.” The emphasis has stayed the same for each: “Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise rights and responsibilities of citizenship” (Goals 2000).

No Child Left Behind

With the new century, NCLB began a new era in which America’s 50 million school-age children would be educated, as well as in how the federal government would support elementary and secondary education. Former U.S. Secretary of Education, Paige said, “For too long, many of our schools did a good job educating some of our children. With this new law we’ll make sure we’re providing all of our children with access to a high-quality education” (U.S. Department of Education, 2002, p. 3).

Cochran-Smith (2005) indicated “despite its lofty goals, there was criticism of NCLB from the beginning” (p. 99). Conversations and reports show that teachers felt overwhelmed and pressured by new vocabulary terms such as “highly-qualified teachers” (HQT), “adequate yearly progress” (AYP) and “high stakes testing” with accountability report cards exposing comparative information on the quality of neighborhood schools (Sunderman et al., 2004).

Accountability

Even as the No Child Left Behind (NCLB) Act marked its sixth anniversary of being signed into law, local school districts and teachers struggled to meet the accountability measures associated with its mandates. No other federal education

initiative prior to NCLB had at its core such rigorous accountability standards or penalties for schools that do not make adequate yearly progress (Edwards, 2008).

Due to these stringent accountability factors, NCLB was the first federal education mandate, through the allocation or seizure of federal funds, which forced state school systems, local districts, principals, and teachers to change their status-quo or normal practices. Each federal mandate prior to NCLB sought some type of equality for a subgroup of our population or proclaimed that the United States was lagging behind other nations and thus needed to change. Even former U.S. Secretary of Education Spellings, in a formal announcement acknowledging the six year anniversary of NCLB discussed how NCLB coming on the heels of the new 21st century, had everyone recognizing that this federal legislation “has sparked a more sophisticated dialogue that’s driving real improvement for all students” (Spangler, 2008, p. 2).

Mandated Change

With NCLB mandating that the educational community change, it is from this perspective that the teacher is considered the major change agent. In his book, *The New Meaning of Educational Change*, Fullan (1991) began Part II: Educational Change at the Local Level and Chapter 7 with the following anonymous quote: “If a new program works teachers get little of the credit; if it fails they get most of the blame.” He wrote, “Educational change depends on what teachers do and think – it’s as simple and as complex as that. Whether significant educational change is possible is a moot point; easy it certainly isn’t” (p. 117).

“To achieve different results,” Clubb (2001) wrote in *Leading for Innovations: Organizing for Results*:

We must take different actions. Because our actions are shaped by how we see the world, to do something different we must see something different. We must question the assumptions and mental models we use to see the world, frame our thinking, and determine actions. Innovation depends on it. (p. 153)

It is the education leaders' responsibility to support the teachers through this change process.

Sources of Responsibility

Borrowing a key phrase from Collins (2001) In *Good to Great*, Schmoker (2006) in *Results Now*, noted that educators must confront the “brutal facts” toward change and improvement removing any age old buffers that hamper quality instruction and student learning. Schmoker went on to explain that the single greatest detriment of learning is not socioeconomic factors or funding levels, but instruction. A culture of privacy, with teachers being left alone in schools, prevents teachers from effective teaching and students from learning. Furthermore, the system has created generations of talented, hardworking teachers engaged in inferior teaching practices, with professional development being rarely selected on the basis of evidence or proven effectiveness.

For years, researchers have shown that teacher quality has a significant influence on student achievement. Educational leaders and writers have promoted a variety of approaches to improving teacher effectiveness through such strategies as improved teacher preparation, improved induction programs, merit pay, and a large spectrum of professional development programs (Greenwald, Hedges, & Laine, 1996). It is through instruction that teachers interact with students to improve student knowledge and skills. It is by improving teacher capacity to make sound instructional

decisions that schools and districts can effectively address student learning needs and improve student achievement.

The National Staff Development Council (NSDC) offers a set of assumptions to invite transformation in beliefs and practice (Sparks, 2003). To bring about a significant change in teaching and learning, district leaders do make a difference and they must make a significant change in what they think, say, and do. It is critically important to provide high quality professional learning that promotes intellectual rigor and continuous innovation for all teachers so that quality teaching may occur. Finally, policy matters; it can direct teachers and leaders toward the most powerful forms of high-quality professional development or lead them down unproductive paths.

While it is the responsibility of district officials to guarantee that high-quality professional development is being delivered to every teacher within their charge, the sources of professional development are numerous. Professional development may be provided by higher education institutions, state departments of education, regional agencies, local districts, school level administrators, instructional coaches, outside support services, and other resources.

Professional Development

“Professional development is the primary vehicle in efforts to bring about needed change in student achievement” (Brown & Butcher, p.1). To paraphrase Sparks (2002) in *Designing Powerful Professional Development*, professional development must include organizational development as well as individual development. It must be job embedded and programmatic, and must be not only for teachers, but for everyone who affects student learning.

Definition of Professional Development

In NCLB, the term “high-quality professional development” refers to the definition of professional development in Title IX, Section 9101(34). It includes activities that: (a) improve and increase teachers’ knowledge of academic subjects; (b) are integral to broad school wide and district-wide educational improvement plans; (c) give teachers, principals and administrators the knowledge and skills to help students meet challenging state academic content standards and student academic achievement standards; (d) improve classroom management skills; (e) are high quality, sustained, intensive and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher’s performance in the classroom; and are not one-day or short-term workshops or conferences; (f) support the recruiting, hiring and training of highly qualified teachers, including teachers who became highly qualified through state and local alternative routes to certification; (g) advance teacher understanding of effective instructional strategies that are based on scientifically- based research and strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers; (h) are aligned with and directly related to state academic content standards, student academic achievement standards and assessments, and the curricula and programs tied to the standards; and (i) are developed with extensive participation of teachers, principals, parents and administrators of schools to be served under NCLB.

The National Staff Development Council (NSDC) “is the largest non-profit professional association committed to success for all students through staff development and school improvement” (NSDC, 2008). The association’s purpose is “ensuring every educator engages in effective professional learning every day so every

student achieves.” They provide the following as the definition for staff development: “Staff development is the means by which educators acquire or enhance the knowledge, skills, attitudes, and beliefs necessary to create high levels of learning for all students” (p. 2).

Benefits of Professional Development

The NSDC’s Standards for Staff Development recognize that sustained, rigorous staff development is essential for everyone who affects student learning. This not only refers to teachers and principals, but also includes board of education members, district administrators, support staff, etc. Quality staff (professional) development is a “significant responsibility of all educational leaders” (NSDC, p. 2).

Professional development is a form of adult learning. “Yet, districts too often forget that professional development must be concerned primarily with student learning” (Brown & Butcher, 2003, p. 1). Professional development in schools has traditionally consisted of activities such as attending conferences or working on curriculum during teacher workshop days. Dynamic speakers and interesting workshops may have some value, but schools and districts must help educators translate their learning into instructional practices and student achievement.

Problem Statement

The *No Child Left Behind Act* (2002) has legislated sweeping changes for public education in the United States and has made an enormous impact on elementary and secondary education in the United States (International Reading Assoc., 2005). The broad purpose of NCLB was to set standards for student achievement and to hold students and educators accountable for results.

Fullan (1991) shared that “change is a process, not an event” (p. 49). In the past six years, expectations have increased greatly for teachers across the United States. Superintendents, board of education members, central office staff, and principals have been asked to oversee a major restructuring of their school system. Educational leaders do not know if they are providing adequate levels of support, technical assistance, and professional development for the teachers to reach the standards (achievement points) set by NCLB. Administrators need to know where their school systems are along the path of change.

Understanding the depth at which the educational communities would need to change to bring about greater student achievement, as well as to reach AYP, NCLB had as one of its mandates that school systems shall provide high-quality professional development. In late 2004, almost three years after the signing of the No Child Left Behind Act, the NCLB Task Force of the National Staff Development Council conducted an online survey and asked any educator throughout the nation to respond to and complete 22 questions.

As reported by Mizell (2005), the survey had three purposes: first, to seek information on how educators are currently experiencing the No Child Left Behind Act as it relates to professional development; second, to inform respondents about NCLB provisions that impact professional development; and third, the survey provided a way for NSDC to assess the state of staff development more generally.

The survey was not “scientific” (Mizell, 2005) but received responses from 2,123 educators. The information received indicated what Congress had intended: NCLB has increased the pressure on educators to raise levels of student performance. One finding on the survey was that not all school systems and schools are responding by providing

high-quality professional development. At both the district and school levels, there were many examples of ineffective planning and management of NCLB implementation. Teachers, of course, bear the burden of this, and their work is made even more difficult when administrators fail to make good use of an asset like professional development (Mizzell, 2005).

In sharp contrast to the negative feedback described in the survey, some educators believed both NCLB and the professional development it has stimulated are having positive effects. While positive responses were in the minority, they illustrated that there are some school districts and schools that are responding positively to NCLB.

Mizzell (2005) continued, "Until there is a more scientific survey, we cannot know with certainty the extent to which the survey results represent educators' experiences with and impressions of the NCLB as it relates to professional development" (p. 2). A need exists to determine whether teachers perceive they are being provided with the high-quality professional development that is required to bring about higher student achievement as mandated by NCLB.

Purpose of the Study

The goal of this study was to determine if educational leaders are providing support, technical assistance, and continued high-quality professional development to assist teachers in meeting the mandates and changes associated with the No Child Left Behind legislation. Specifically, the study sought to determine if the National Board Certified Teachers (NBCT) working within the Appalachian Mountain Region perceive they are experiencing high-quality professional development as defined by Title IX, Section 9101 (34)A of the NCLB Act. Also respondents were asked if they perceive the QUANTITY and QUALITY of professional development offerings has changed since the

passage of NCLB, and if they perceive this professional development is assisting them to improve the quality of teaching and learning.

Research Questions

Given the realities of the No Child Left Behind legislation and the mandates for high-quality professional development, the following research questions were addressed:

1. To what extent do teachers perceive they are experiencing high-quality professional development as defined by Title IX of the No Child Left Behind legislation?
2. To what extent do teachers perceive they are being provided a higher QUANTITY of professional development today as compared to prior to the passage of the No Child Left Behind Legislation?
3. To what extent do teachers perceive they are being provided a higher QUALITY of professional development today as compared to prior to the passage of the No Child Left Behind Legislation?
4. To what extent do teachers perceive professional development as assisting them in improving the quality of teaching and learning?
5. Are there differences in teacher perceptions based upon selected demographic information?

Operational Definitions

1. Perception of the Quality of Professional Development – Responses from participants using a 5-point Likert scale on *Beck's Professional Development*

- Inventory* related to the professional development definition provided by Title IX, Section 9101 (34)A of the No Child Left Behind Act (Questions 10 – 27)
2. Perception of Change in the QUANTITY of Professional Development since the passage of No Child Left Behind (NCLB) - Responses from participants on *Beck's Professional Development Inventory* (Question 28)
 3. Perception of Change in the QUALITY of Professional Development since the passage of No Child Left Behind (NCLB) - Responses from participants on *Beck's Professional Development Inventory* (Question 29)
 4. Perception of the Effect of Professional Development - Responses from participants on *Beck's Professional Development Inventory* (Question 30)
 5. Demographic Information – Responses from participants as to the following items (Questions 1 -7):
 - Geographic location
 - Sex
 - Work place
 - Number of years as an educator
 - Highest degree achieved
 - Student population of district

Research Methods

The population chosen for this study was Nationally Board Certified Teachers (NBCTs) who work and live along the Appalachian Mountain Region. Appalachia can be examined as a group because the area has inherent similarities such as a low minority population rate and a high number of low socio-economic status students (low

SES). Therefore, conclusions based on this region may not be generalizable to the rest of the United States. In order to insure quality data, the researcher attempted to locate a population of teachers who had experience teaching, had committed to passing an objective and rigorous review, had the opportunity to participate in various professional development trainings, and exhibited the abilities to self-assess and reflect. Due to the length of time mandated to become Nationally Board Certified, this group of teachers has been teaching prior to the passage of NCLB and should be able to compare and provide responses accordingly.

Appalachia

Appalachia is a geographic region covering a 200,000 square mile area that follows the spine of the Appalachian Mountains from southern New York to northern Mississippi. It includes all of West Virginia and parts of 12 other states. They are: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia. All but three of these states (New York, Ohio, and Pennsylvania) are also included in the Southern Regional Education Board (SREB).

“The Appalachian subregions are contiguous regions of relatively homogeneous characteristics (topography, demographics, and economics) within Appalachia” (Appalachian Regional Commission, 2008). The regions will be defined as: (a) Northern – New York, Pennsylvania, Ohio, Maryland, and a large portion of West Virginia; (b) Central – Kentucky with portions of Tennessee, Virginia, and West Virginia; (c) Southern – Mississippi, Alabama, Georgia, South Carolina, North Carolina, and portions of Virginia and Tennessee.

Approximately 23 million people live in the 410 counties of the Appalachian Region; 42% of the region's population is rural, compared with 20% of the national population. Appalachia's economic fortunes were based in the past mostly on extraction of natural resources and manufacturing. The modern economy of the area is gradually diversifying, with a heavier emphasis on services and widespread development of tourism, especially in more remote areas where there is no other viable industry. Coal remains an important resource and manufacturing is still an economic mainstay but is no longer concentrated in a few major industries (ARC, 2008).

National Board Certification

Teachers with National Board Certification have at least three years of teaching experience and hold a valid state teaching license. As part of their certification process, they have completed 10 assessments that are reviewed by trained teachers in their certificate area. The assessments include four portfolio entries that feature teaching practices and six constructed response exercises that assess content knowledge (NBPTS, 2008). NBCTs have demonstrated the ability to reflect and evaluate, which translates to the ability to evaluate their district level professional development.

There are 64,000 National Board Certified Teachers nationwide with over 5,500 of those teaching in the public school districts located in the Appalachian Mountain Region. A stratified random sample was taken with 650 NBCTs contacted by mail and asked to complete a survey. An analysis was completed to examine the perception of change in professional development since NCLB, the quality of professional development provided in the states of Appalachia, and the effect of professional development on improving teaching and increasing student learning.

Survey Instrument

Beck's Professional Development Inventory was developed from a survey conducted by the NCLB Task Force of the National Staff Development Council (2004) and NCLB's definition of professional development (Title IX, Section 9101(34)A). Permission to reexamine the NSDC instrument and to make adaptations was granted by Joellen Killion, Deputy Executive Director for the NSDC (See Appendix A).

The National Staff Development Council electronic survey sought information on how educators were experiencing NCLB as it related to professional development. The *Beck's Professional Development Inventory* incorporated many of the same components with some demographic questions added in order to provide for possible comparative results to the earlier survey.

A majority of the *Beck's Professional Development Inventory* focused on the 15 activities that were included in the NCLB definition of professional development. Participants were asked to mark responses that most accurately reflect their experiences with professional development over the past five years. From these questions, the current state of professional development in Appalachia as defined by NCLB was analyzed.

Significance of Study

Marzano (2003) indicated that of all the factors that affect learning, the quality of teaching is the most important by far. With this being so, one of the most important objectives of any school district is to provide high-quality professional development for their teachers. "What teachers know and can do is the most important influence on what students learn ... Improving the quality of teaching holds the greatest promise for higher levels of student learning for all children" (Berg, 2003, p. 23).

Overall, this study assessed NBCTs' perceptions of support provided by their local school district in addition to their perceptions of the opportunities to attend and participate in high-quality professional development as defined by Title IX of the NCLB legislation. School administrators and local school districts can use the results of this study to determine whether their professional development programs are aligned with the definition of professional development as provided by NCLB. The study provides an overview of the current state of professional learning for teachers following the passage of the No Child Left Behind Act with recommendations for best practices to assist in advancing student achievement.

Principals, local school district administrators, teacher organizations, superintendents, and school board members outside the research population may use the findings to compare and determine areas of need in professional development for their teachers with the ultimate goal of providing better student learning and higher student achievement. As with any organization, the research will allow goal setting and budgets to be planned for implementation with justification of expenditures to stake holders.

Limitations and Delimitations

The following limitations were identified as possible restrictions in this study:

1. The study relied on self-reported information through survey; no assurance was given that the participants gave adequate time and thought when completing the survey.
2. Survey questions were designed as forced responses, relying on provided answers or a Likert scale which did not provide an opportunity for

respondents to elaborate or construct their own responses to increase accuracy of reporting.

3. The survey represents voluntary participation. Members of the sample may have chosen not to answer some or all the questions, thus affecting the results.
4. Participants were given a choice to either complete the provided paper copy of the Beck's Professional Development Inventory or to complete an identical electronic survey located at a hotlink provided by www.surveymonkey.com.

The following delimitations were identified as factors that limit or prevent generalization of the findings of this study:

1. The population was limited to National Board Certified Teachers (NBCT) thereby making the results generalizable to this group only in Appalachia.
2. The content and scope of this study was limited to NBCT in Appalachia. Therefore, the results can not be generalized to NBCT in other regions or states.
3. The population was chosen from those NBCT registered on the National Board of Professional Teaching Standards directory and website at <http://NBPTS.org>. If a NBCT from Appalachia had not maintained his directory registration, he would not be included in the sample.
4. Teachers in Appalachia who are not national board certified have been excluded from this research and they may be the population who express a greater need for support and professional development from their local school district. Likewise, less experienced teachers are excluded by virtue of

Summary

The No Child Left Behind (NCLB) Act legislated sweeping changes for public education in the United States. The legislation has had a broad effect on elementary and secondary education, and the state school systems; local districts, principals, and teachers throughout the nation have felt the consequences and outcomes of this legislation. This study sought to determine if teachers perceive their local school district as providing high-quality professional development, if they perceive the QUANTITY and QUALITY of professional development offerings has changed since the passage of NCLB, and if they perceive this professional development is assisting them to improve the quality of teaching and learning.

CHAPTER TWO: REVIEW OF LITERATURE

The No Child Left Behind Act, passed in early 2002, “codified into federal law a theory of educational changes that assumes external accountability and imposition of sanctions will force schools to improve and motivate teachers to improve their instruction practices, resulting in improved student performance” (Sunderman, Tracey, Kim, & Orfield, 2004, p. 10). State school systems, local districts, principals, and teachers throughout the nation have felt the consequences and outcomes of this legislation. The goal of this study was to determine if educational leaders are providing high-quality professional development to assist teachers in meeting the mandates and changes associated with NCLB.

Sunderman et al. (2004) examined the teacher’s views and classroom realities associated with NCLB. In reading one teacher’s comments, it is evident the sanctions and pressures are not motivating teachers to change but rather frustrating and overwhelming them. She wrote:

Teachers in low-performing schools work harder than the government can imagine! We are blamed for everything that causes a child to fail, and yet there is no accountability on the part of the student or the parent. Low-performing schools make progress, and yet nothing is good enough. When we say that we deal with absenteeism, poor student discipline, etc., we are told these are excuses. We are dedicated people who have been treated unfairly...Pay attention, NCLB, to the good things that are done by teachers. (p.9)

Within NCLB's mandates and strategies for change is an emphasis on teacher quality and amendments in how federal monies are distributed, the law has extensive implications for professional development due to the fact "sound professional development for educators is vital to teacher retention and student performance" (NSDC, 2005, p. 11). This statement is supported by the Annual Phi Delta Kappa/Gallup Poll (1999) in which "85% of the public supports school-financed professional development opportunities as a means of attracting and retaining public school teachers" and "increasing teacher education yields the greatest increase in student achievement" (p. 49).

Given the NCLB challenges educators are facing, high-quality professional development is essential, but "it does not appear that most school systems are effectively using the law towards that end" (Mizell, 2005, p. 1). National Board Certified Teachers (NBCT) from across Appalachia were asked their perceptions of the QUANTITY and QUALITY of professional development they had received over the past five years. Also they were asked if NCLB had improved their level of instruction as well as improved their student's achievement levels. To compare the NBCT perceptions to other research, an examination of the literature was completed.

National Influences on American Education

This large-scale reform effort known as NCLB is similar to other initiatives began by the federal government decades ago to address the issue of equality in public education. "In an effort to address racial segregation, the needs of handicapped students, provide bilingual schooling for immigrants as well as how to compensate for disadvantaged students, the wave of reform efforts are numerous" (Molina-Walters, 2004).

Tied to the current NCLB initiative and all those which have come before is the need for teachers to receive high-quality professional development to understand and learn the best methods of instruction when working with different subgroups of children. Their students may be disabled, come from a poor home, or recently bused from their home school to help achieve desegregation. Various national influences, federal mandates, and policy efforts in American Education will be examined by decades beginning with the 1950s.

American Education – 1950s

Brown v. the BOE of Topeka. One of the earlier reform efforts was *Brown v. the Board of Education of Topeka* (1954). This unanimous (9-0) decision of the United States Supreme Court, overturned earlier rulings going back to *Plessy v. Ferguson* in 1896, by declaring state laws that established separate public schools for black and white students denied black children equal educational opportunities.

For much of the 90 years preceding the *Brown* case, race relations in the U.S. had been dominated by racial segregation. This policy had been endorsed in 1896 by the United States Supreme Courts case of *Plessy v. Ferguson*, which held that as long as the separate facilities for the separate races were equal, segregation did not violate the Fourteenth Amendment which guarantees all citizens equal protection of the laws (<http://brownvboardssummary.org>).

At this time in U.S. history, racial segregation in education varied widely from the 17 states that required it to the 16 states that prohibited racial segregation. The plaintiffs in *Brown* asserted that this system of racial separation, while masquerading as providing separate but relatively equal treatment of both white and black Americans,

instead perpetuated inferior accommodations, services, and treatment for black Americans.

“As the federal judiciary reshaped the racial and institutional contours of public schooling in the aftermath of *Brown*” (Finn, 2008, p. 9), federal laws and policies, federal attorneys, and even federal troops made their way into K-12 education. Finn went on to state that “America’s longstanding if not always honorable tradition of local control was threatened” (p. 9). It was not until the launch of Sputnik that federal funds would be available to compliment any judicial or legislative educational rulings.

National Defense Education Act. In 1957, when the Sputnik satellite rocketed into space the U.S. Government realized the expertise of their Russian counterparts in math and science. “The Sputnik launch changed everything” (NASA, 2008). As a technical achievement, Sputnik caught the world's attention and the American public off-guard. In addition, the public feared that the Soviets' ability to launch satellites also translated into the capability to launch ballistic missiles that could carry nuclear weapons from Europe to the U.S. According to Finn (2008), the realization that the United States was slowly losing its competitive edge began the microscopic critique and restructuring of our education curriculum, instruction, assessment and accountability practices.

In 1958, one year after the launch of Sputnik, the National Defense Education Act (NDEA) was passed providing aid to education in the United States at all levels. The NDEA was instituted primarily to stimulate the advancement of education in science, mathematics, and modern foreign languages; it also provided aid in other areas including technical education, area studies, geography, English as a second language,

counseling and guidance, school libraries, and education media centers. This legislative act was the first major federally funded education act passed in the United States.

Marshall, Sears, and Schubert (2000) acknowledged with this new era began the comparisons of our children's academic levels to children's performance in other nations, and thus set in motion the days of federal government influence on our public schools and the education of our youth. School systems were mandated to increase the rigor in math and science so that never again would our country be embarrassed by the inefficiencies of our public schools (Dow, 1991; Finn, 2008).

American Education – 1960s

Elementary and Secondary Education Act. The 1960s brought a closer look at the inequalities of our class system and societal concerns for our youth living in poverty. Thus the Elementary Secondary Education Act (ESEA) was passed by Congress under then President Johnson. ESEA, designed by Commissioner of Education Keppel, was passed on April 9, 1965, less than three months after it was introduced. This piece of legislation constituted the most important educational component of the 'War on Poverty' launched by President Johnson (Schugurensky, 2002). Through special funding (Title I), it allocated large resources to meet the needs of educationally deprived children, especially through compensatory programs for the poor.

In recognition of the special educational needs of low-income families and the impact that concentrations of low-income families have on the ability of local educational agencies to support adequate educational programs, the Congress hereby declares it to be the policy of the United States to provide financial

assistance ... to local educational agencies serving areas with concentrations of children from low-income families to expand and improve their educational programs by various means (including preschool programs) which contribute to meeting the special educational needs of educationally deprived children.

(Section 201, Elementary and Secondary School Act, 1965)

The Elementary and Secondary Education Act was developed under the principle of redress, which established that children from low-income homes required more educational services than children from affluent homes (Schugurensky, 2002). As part of the Elementary and Secondary Education Act, Title I Funding allocated 1 billion dollars a year to schools with a high concentration of low-income children.

One initiative created by this funding source was Head Start. Head Start was and continues today as a preschool program for disadvantaged children aiming at equalizing equality of opportunity based on 'readiness' for the first grade. Originally, Head Start was initiated by the Office of Economic Opportunity as an eight-week summer program, but quickly expanded to a full-year program.

Following the enactment of the bill, President Johnson stated that Congress, which had been trying to pass a school bill for all America's children since 1870, had finally taken the most significant step of this century to provide help to all schoolchildren (Schugurensky, 2002). He argued that the school bill was wide-reaching, because "it will offer new hope to tens of thousands of youngsters who need attention before they ever enroll in the first grade," and will help "five million children of poor families overcome their greatest barrier to progress: poverty." He also contended that there was no other single piece of legislation that could help so many for so little cost: "for every one of the

billion dollars that we spend on this program, will come back tenfold as school dropouts change to school graduates" (Johnson, pp 407-408).

The Coleman Report. The assumption behind ESEA and President Johnson's comments, that more and better education services for the poor would move them out of poverty (Johnson, 1966), would soon be challenged by the Coleman Report. In 1966 the landmark Equality of Educational Opportunity report (commonly known as the Coleman Report) found that student achievement is influenced more by a student's and school's socioeconomic circumstances than by school quality.

Author Coleman argued that school improvements such as higher quality of teachers and curricula, facilities, or even compensatory education had only a modest impact on students' achievement. He concluded that African American children greatly benefited from attending integrated schools instead of those predominantly segregated. This set the stage for school busing to achieve desegregation and equality for all students attending school.

Finn stated that Coleman's contradictions "to LBJ's shiny new programs - school resources and services not reliably translating into school results" (Finn, 2008, p. 19) were on target. Coleman had the data to prove that "investing more in a school (more money, teachers, books, facilities, etc.) was no sure way to boost its pupils' achievement." Finn concluded his discussion on The Coleman Report by stating, "up until that time very little attention was paid to student outcomes ...the importance of this report was that it changed the perspective to concentrating on student performance, and that has endured" (p. 19).

American Education – 1970s

With each and every decade, new concerns and policies emerged. This continued into the 1970s with the Education for All Handicapped Children Act of 1975. Once again, a subgroup of our youth was not being provided with an appropriate education geared to their needs. The passage of Federal Public Law 94-142 assured a free and appropriate education for all handicapped children in the least restrictive environment (Tanner & Tanner, 1990). Formerly called the Individuals with Disabilities Education Act (IDEA), after its reauthorization in 2004 renamed the Individuals with Disabilities Education Improvement Act (IDEIA), ensures that students with disabilities, are provided with individual education plans (IEPs) to meet their needs in a school setting close to their homes.

Prior to 1975, the U.S. Department of Education, Office of Special Education and Rehabilitative Services, reported that public schools educated only 1 out of 5 children with disabilities. Until that time, many states had laws that explicitly excluded children with certain types of disabilities from attending public school, including children who were blind, deaf, and children labeled "emotionally disturbed" or "mentally retarded." When the Education for All Handicapped Children was enacted, more than 1 million children in the U.S. had no access to the public school system (National Council on Disability, 2000). Many of these children lived at state institutions where they received limited or no educational or rehabilitation services (Schiller, et al., nd). Another 3.5 million children attended school but were "warehoused" in segregated facilities and received little or no effective instruction (National Council on Disability, 2000).

IDEA created much needed opportunities "for kids who had been unwelcomed in school, commonly kept at home (or institutionalized) by their families, and who, when

enrolled at all, were frequently denied the extra help that many needed” (Finn, p. 35). The new law also brought new rules, procedures, disputes, and controversies such as classifying students as disabled when they only needed a little extra assistance or discipline. Finn shared that even President Ford had misgivings when signing the measure. Ford stated, “This bill promises more than the federal government can deliver, and its good intentions could be thwarted by the many unwise provisions it contains” (p. 36).

American Education – 1980s

According to Dow (1991), although the nation poorly viewed public education in the 1960s and 1970s, the 1980s were even darker times. Released in 1983 by the National Commission on Excellence in Education, the report *A Nation at Risk: The Imperative for Educational Reform* was considered by some as proof that K-12 education had indeed evolved into a state of irreversible disrepair. “This publication not only fueled the current drive toward educational change but also increased the microscopic attention upon educational practices” (Molina-Walters, 2004). The first paragraph from the report stated:

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. This report is concerned with only one of the many causes and dimensions of the problem, but it is the one that undergirds American prosperity, security, and civility. We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its

people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur--others are matching and surpassing our educational attainments. (1983, p. 1)

American Education – 1990s

Trends in International Mathematics & Science Study. Federal policy has had a significant impact on America's schools and children. Yet, even with hundreds of programs and hundreds of billions of dollars invested during the last generation, American students still lag behind students from many other developed nations as defined by various international standardized tests. The effects of the report, *A Nation at Risk*, persisted through the 1990s when a newer study, the *Trends in International Mathematics and Science Study* (TIMSS), , would also be interpreted as evidence of the ineffectiveness of education in America.

TIMSS, which examined mathematics and science curricula, instructional practices, and school and social factors, provided reliable and timely data on the mathematics and science achievement of U.S. 4th- and 8th-grade students compared to that of students in other countries. The results would be interpreted by many, including the U.S. Department of Education, as evidence of a dire need for public education reform (U.S. Department of Education, National Center for Educational Statistics, 1998). TIMSS data have been collected in 1995, 1999, 2003, and 2007.

According to Stuart Kerachsky, the acting commissioner for the National Center for Education Statistics, the TIMSS 2007 results showed the academic achievement gap in this country between rich and poor, white and minority students still continued to

show discrepancies in the students' ability levels (Kerachsky, 2008). Even though "the average mathematics scores of both U.S. fourth-graders and eighth-graders were higher than the TIMSS scale average" (Kerachsky, p. 1), the students from the highest poverty public schools as well as students who are black or Hispanic were scoring lower than the average scores of students in other categories.

National Assessment of Educational Progress. The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, and U.S. history. Since NAEP assessments are administered uniformly using the same sets of test booklets across the nation, NAEP results serve as a common metric for all states and selected urban districts. The assessment stays essentially the same from year to year, with only carefully documented changes. This permits NAEP to provide a clear picture of student academic progress over time (<http://nces.ed.gov/nationsreportcard/>).

Table 1 provides information on the fourth-grade and eighth-grade mathematics and reading scores for 2003, 2005, and 2007. The ALL population shows small improvements in 4th and 8th grade mathematics and 4th grade reading. Even though showing improvements, the black subgroup and those students eligible for free/reduced lunch (Low SES), scored much lower than the white subgroup. This validates the continued need to improve the educational process for students in these subgroups.

Table 1

NAEP Scores for 4th & 8th Grade Students in the U.S.

	NAEP - Mathematics Composite Score							
	4 th Grade				8 th Grade			
	All	White	Black	Low SES	All	White	Black	Low SES
2007	239	236	218	227	280	290	259	265
2005	237	234	216	225	278	288	254	261
2003	234	231	212	222	276	287	252	258

	NAEP - Reading Composite Score							
	4 th Grade				8 th Grade			
	All	White	Black	Low SES	All	White	Black	Low SES
2007	220	230	203	205	261	244	270	247
2005	217	228	199	203	260	242	269	247
2003	N/A	N/A	N/A	N/A	261	244	270	246

Since the *Nation at Risk Report* (1983) was issued over 25 years ago, there has been a strong national debate over how to improve our nation's schools and our students' achievement (MacPherson, 2003). Each President over the past 25 years has proposed a broad educational reform plan wishing to use schools as key institutions in creating both social and economic change for the United States. Following Reagan's "*A Nation at Risk*," we have had George H. Bush's "*America 2000*," Clinton's "*Goals 2000*," and most recently George W. Bush's "*No Child Left Behind*." One might question why each President has focused on education. To whatever factor one attributes the reform efforts, it seems reasonable to agree with Frazier (1997), that the economic future of the nation, hinges on the success of American schools.

No Child Left Behind

On January 8, 2002, President Bush signed the *No Child Left Behind Act* (NCLB) into law. The act, which passed with overwhelming bipartisan support, had four key principles: (a) stronger accountability for results, (b) greater flexibility in the use of federal funds, (c) more choices for parents so their children can receive the best possible education, and (d) an emphasis on teaching methods that have been demonstrated to work. The act also placed an increased emphasis on reading as well as on raising the quality of our nation's teachers to highly qualified.

Accountability

At first it appeared that most individuals agreed with NCLB's stated purpose, "to ensure that all children have a fair, equal, and significant opportunity to attain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments" (U.S. Congress, 2001, p 201). However, in an editorial published in the *Journal of Teacher Education*, Cochran-Smith (2005) discussed how public cynicism began early for NCLB, saying "criticism of NCLB was reflected in the wordplay on its name." She gave examples such as "no child left untested, no psychometrician left unemployed, no teacher left standing, and same children left behind" (p. 99).

Conversations and reports showed that teachers were feeling overwhelmed and pressured by new vocabulary terms such as "highly-qualified teachers" (HQT), "adequate yearly progress" (AYP) and "high stakes testing" with accountability report cards exposing comparative information on the quality of neighborhood schools (Sunderman et al., 2004). Even President Bush, in an address at Horace Greeley Elementary School in Chicago, IL on January 7, 2008 stated:

People are beginning to get used to the notion that there's accountability in the public school system. Look, I recognize some people don't like accountability. In other words, accountability says if you're failing, we're going to expose that and expect you to change. Accountability also says that when you're succeeding you'll get plenty of praise. (Spangler, 2008, p. 2)

The President went on to say, "The philosophy behind NCLB was in return for money there ought to be a result...That's what a mayor asks ... That's what corporations ask. If we're going to spend money, are we going to get a return on the money?" (Spangler, 2008, p. 2) School systems were mandated to carefully walk the thin line between the "carrot" of NCLB – the continuation of federal funding which for a small state system equates to an average of 100 million dollars in Title I funds alone per year and the "stick" of NCLB – following the law's strenuous accountability measures. (J. Stanley, personal communication, June 29, 2009).

In a formal announcement acknowledging the six year anniversary of NCLB, former U.S. Secretary of Education Spellings, stated that NCLB was "a powerful movement that declares grade-level skills the bare-minimum for life in our democracy and today's economy. We celebrate a movement that declares education is, in fact, the new civil right" (Spangler, 2008, p. 2). In order to address this new civil right, changes have to occur in the system. NCLB has mandated that teachers and school systems must improve student achievement levels. In many instances to accomplish this change, it becomes very frustrating for all parties involved.

Mandated Change

Michael Fullan. As one recognized for his contributions to the body of research on change theory, Fullan described “change as process, not an event” (Fullan, 1991, p. 49). In focusing on the mandated changes brought about by NCLB, Fullan’s model shows that change occurs in phases beginning with initiation, implementation, and institutionalization. “The total time frame from initiation to institutionalization is lengthy; even moderately complex changes take from three to five years, while major restructuring efforts can take five to ten years” (Fullan, p. 49). With NCLB recently marking its sixth anniversary, one can only imagine or predict at what stage of change the nation’s classroom teachers are functioning. It is the local school district’s responsibility to support the teachers through the change process so they may implement best classroom practices required for meeting the stringent accountability standards of NCLB.

Concerns-Based Adoption Model. The Concerns-Based Adoption Model (CBAM) applies to anyone experiencing change, such as policy makers, teachers, parents, students. This framework has implications for the practices of professional development and acknowledges that learning brings change, and supporting people in change is critical for learning to “take hold” (Loucks-Horsely, 1996).

CBAM shows that people not only differ in their approaches and responses to change but move through the stages of change at different speeds. The model holds that people considering and experiencing change evolve through the experience by the kinds of questions they may ask and in their use or implementation of whatever the change is. Specifically, early questions posed by someone experiencing change are more self-oriented: What is it? and How will it affect me? When these questions are

resolved, questions emerge at a different level that are more task-oriented: How do I do it? and How can I organize myself? Finally, when the self and the task concerns or questions are largely answered, the individual can then focus on the impact of the change. An educator would ask: Is this change working for students? (Loucks-Horsely, 1996)

Researchers Hall and Hord (1987), working in teacher education, identified similar categories of teachers who were adopting and implementing new strategies and programs. The categories are based on teachers' reactions or concerns as they experience the adoption and implementation processes related to change.

The stages of CBAM are listed chronologically and explain the process or steps the individual will take when experiencing change. They are: (a) awareness – individuals have little concern or involvement with the innovation; (b) informational – individuals have a general interest in the innovation and would like to know more about it; (c) personal – individuals want to learn about the personal ramifications of the innovation, and they question how the innovation will affect them; (d) management – individuals learn the processes and tasks of the innovation and they focus on information and resources; (e) consequence – individuals focus on the innovations impact on students; (f) collaboration – individuals cooperate with others in implementing the innovation; and (g) refocusing – individuals consider the benefits of the innovation and think of additional alternatives that might work even better (North Central Regional Educational Laboratory, nd).

The Concerns-Based Adoption Model is one way school systems may monitor district change efforts and initiatives. When a school district acknowledges these

concerns and addresses them effectively it is critical to the progress of the reform effort (Loucks-Horsely, 1996).

Change Theory. “In recent decades, school reform efforts have recognized teacher professional development as a key component of change and as an important link between the standards movement and student achievement” (Darling-Hammond et al., 2009, p. 1). Change theory supports the need for professional development. High-quality, professional development activities can increase a teacher’s knowledge and change their instructional practices in ways that support student learning.

Research has suggested “that deep change in teacher instruction, like those required by reformers, takes considerable time” (Snow-Renner & Lauer, 2005, p. 6). Yoon et al. (2007) reported that intensive professional development efforts offering an average of 50 hours of support a year can make a significant impact on student achievement, raising test scores by an average of 21%. Unfortunately, the majority of teachers in the United States receive no more than about two days (16 hours) of training in their subject area per year.

With this in mind, Fullan (2007) argued that professional development does not always lead to professional learning especially if external approaches are not “powerful enough, specific enough, or sustained enough to alter the culture of the classroom and school” (p.35). Easton (2008) stated that “educators must be knowledgeable and wise. They must know enough in order to change. They must change in order to get different results. They must become learners” (p. 756).

“Efforts to improve student achievement can only succeed by building the capacity of teachers to improve their instructional practice and the capacity of school systems to advance teacher learning” (Darling-Hammond, p.1). School leaders can

create conditions in which teachers are well-supported to become effective in the classroom and to improve their effectiveness throughout their careers.

Sources of Responsibility

“Too few students experience great teaching daily, too few educators experience professional learning that has a powerful impact on teaching and student performance, and too few school districts prioritize high levels of learning daily for both adults and students” (Mizell, 2005, p. 8). With knowing “the single biggest factor affecting academic growth of any population of youngsters is the effectiveness of the individual classroom teacher” (Sanders, 1999), school districts must provide on-going support and high-quality professional development for their teachers.

According to Schmoker (2006), school leadership must engage in a dramatic turn toward a singular, straightforward focus on instruction. Professional development focused on reading, writing and discussion will produce educated, literate students. The use of professional learning communities is the best means to continuously improve instruction and student performance with collegial decision making vs. workshops. Finally, school leadership must engage collegial learning in providing a cooperative nature, setting team norms and protocols, and establishing instructional focus.

From the abundant amount of available research, Reeves (2007) described how school leaders already know the steps to take that most likely result in improved student achievement “but like in any organization, taking the steps, suffers to some degree from a gap between intention and action” (p. 85). He compared this “implementation gap” to making a New Year’s resolutions to lose weight but ordering a large pizza with

extra cheese on Super Bowl Sunday. “Just as New Year’s resolutions rarely survive ... many improvement plans never break out of the confines of three-ring binders.”

To close the implementation gap, Reeves (2007) suggested four strategies that school leaders can employ to bring implementation closer to reality. They are: (a) create short-term wins that allow immediate reinforcement to sustain meaningful change; (b) recognize effective practices simply and clearly throughout the year; (c) emphasize effectiveness, not popularity because many initiatives are “unpopular” at the beginning; and (d) make the case for change compelling, and associate it with moral imperatives rather than compliance with authority.

In a Public Agenda survey (2000), when superintendents and principals were asked to identify the most effective strategy for improving teacher quality, they overwhelmingly chose “increasing professional development opportunities for teachers.” Their other choices were: (a) reducing class size, (b) increasing teacher salaries, and (c) requiring secondary level teachers to major in the subjects they are teaching. Even with this awareness, “a great deal of work remains to be done for the law’s (NCLB) professional development provisions to foster the teacher quality necessary for all students to perform proficiently by 2014” (Mizzell, p. 4).

Professional Development

In a national survey of teachers entitled, *Teachers Take Charge of Their Learning*, the survey participants cited the number one reason for professional growth was “to improve student achievement” (NFIE, 1996, p.1). “Professional development has the power to ensure all students, not just some students, are taught by effective teachers” (NSDC, p. 8).

Definition of Professional Development

Many organizations and educators define professional development in various ways. The National Staff Development Council (NSDC) “is the largest non-profit professional association committed to success for all students through staff development and school improvement” (NSDC, 2008). The association’s purpose is “ensuring every educator engages in effective professional learning every day so every student achieves.” They provide the following as the definition for staff development: “Staff development is the means by which educators acquire or enhance the knowledge, skills, attitudes, and beliefs necessary to create high levels of learning for all students” (p. 2).

The NSDC’s Standards for Staff Development recognize that sustained, rigorous staff development is essential for everyone who affects student learning. This not only refers to teachers and principals, but also includes board of education members, district administrators, support staff, etc. Quality staff (professional) development is a “significant responsibility of all educational leaders” (NSDC, p. 2). The NSDC divides their 12 standards for professional development into three categories: context, process, and content standards.

The context standards improve the learning of all students by: (a) organizing adults into learning communities whose goals are aligned with those of the school and district; (b) requiring skillful school and district leaders who guide continuous instructional improvement; and (c) requiring resources to support adult learning and collaboration.

The process standards improve the learning of all students by: (a) using disaggregated student data to determine adult learning priorities, monitor progress, and

help sustain continuous improvement; (b) using multiple sources of information to guide improvement and demonstrate its impact; (c) preparing educators to apply research to decision making; (d) using learning strategies appropriate to the intended goal; (e) applying knowledge about human learning and change; and (f) providing educators with the knowledge and skills to collaborate.

The content standards improve the learning of all students by: (a) preparing educators to understand and appreciate all students, create safe, orderly and supportive learning environments, and hold high expectations for their academic achievement; (b) deepening educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and preparing them to use various types of classroom assessments appropriately; and (c) providing educators with knowledge and skills to involve families and other stakeholders appropriately.

Dole (2002), at the University of Utah, adapted information from Hawley and Valli (1999) to create a set of guidelines for effective professional development: (a) professional development should focus on students and student performance, rather than being teacher-centered; (b) teachers need to be actively involved in the learning process; (c) professional development needs to be job-embedded and integral to the school community; (d) teachers need to solve problems collaboratively and to avoid isolation; (e) teachers need ongoing support and assistance, including specific and timely follow up in their classrooms and schools; (f) teachers need theoretical understanding about learning and instruction; (g) professional development must be part of a comprehensive change process; and (h) do not spend school, district, and state monies on new fads and gimmicks with no demonstrated research value.

To research the current state of professional development in the Appalachian Region, this project used the definition of professional development as provided by the NCLB legislation. In NCLB, the term “high-quality professional development” refers to the definition of professional development in Title IX, Section 9101(34). It included activities that: (a) improve and increase teachers’ knowledge of academic subjects; (b) are integral to broad school wide and district-wide educational improvement plans; (c) give teachers, principals and administrators the knowledge and skills to help students meet challenging state academic content standards and student academic achievement standards; (d) improve classroom management skills; (e) are high quality, sustained, intensive and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher’s performance in the classroom; and are not one-day or short-term workshops or conferences; (f) support the recruiting, hiring and training of highly qualified teachers, including teachers who became highly qualified through state and local alternative routes to certification; (g) advance teacher understanding of effective instructional strategies that are based on scientifically- based research and strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers; and are aligned with and directly related to state academic content standards, student academic achievement standards and assessments, and the curricula and programs tied to the standards; and (h) are developed with extensive participation of teachers, principals, parents and administrators of schools to be served under NCLB.

Benefits of Professional Development

“Though the NCLB’s requirements and funding for professional development should be improving educators’ levels of performance, it appears too many teachers still experience professional learning an onerous obligation rather than a useful and uplifting resource” (Mizell, 2005, p.1). In 2002, Joyce and Showers issued an update to their original research on the most effective method of professional development.

The four categories were: (a) theory, (b) demonstration, (c) practice and feedback, and (d) peer coaching or collegial support. Each category was evaluated for the impact on knowledge and understanding, ability to use new skill, and transfer to the classroom. Overwhelming, peer coaching or collegial support proved to be the most effective method for providing professional development. Participants receiving professional development in this manner have a 95% gain in knowledge, 95% mastery of the skill, and a 95% ability to transfer or implement the knowledge in the classroom.

On February 4, 2009, the NSDC held a national event to release the findings of the report *Professional Learning and the Learning Profession*. The report was written by Darling-Hammond and a team of researchers from the Stanford University School Redesign Network. It examined what research has revealed about professional learning that improves teachers’ practice and student learning. In her comments, Stephanie Hirsh (2009), Executive Director of NSDC, stated:

To ensure students in America meet and exceed high standards at all levels; improving professional learning is crucial to achieving this goal.

The nation’s students deserve to experience effective teaching every day. But ensuring this happens isn’t just about getting rid of poor teachers or recruiting better teachers. We must do more with the talent we have. Ensuring that best

practice is everyday practice in schools requires opportunities for teachers to learn from each other, collaborate, view each other's practice, and share what works from classroom to classroom and from school to school. This can only happen when every educator can engage in quality professional learning every day. When this is realized, research shows, teachers and students have more success (2009, p. 1).

The report, *Professional Learning in the Learning Profession*, included analyses of data from the National Center for Educational Statistics' Schools and Staffing Survey (SASS) database for 2003-2004. SASS is a nationally representative sample of more than 130,000 public and private school teachers across all 50 states. Also, researchers examined the NSDC Standards Assessment Inventory (2007-2008), which had been administered to more than 150,000 teachers across 11 states. The report documented the following problems in teacher development:

- Workshop overload – Professional development is occurring in isolation as the “flavor of the month” or one-shot workshops that do not go hand-in-hand with school improvement efforts.
- Little intensity, short duration – The average teacher (57%) only receives about two days of training a year in their subject areas.
- Working in isolation – Teachers report little professional collaboration in designing curriculum and sharing practices.
- Major blind spots – More than two-thirds of teachers nationally had not even had one day of training to support special education students.
- Lack of utility – Fewer than half of teachers report receiving professional development in areas such as classroom management.

- Out of pocket payments – U.S. teachers bear much of the cost of their professional development. They are excused from work to pursue professional learning opportunities with fewer than half receiving reimbursements for travel, workshop fees, or college expenses.
- Limited influence – Less than one-fourth of teachers feel they have great influence over school decisions and policies (Darling-Hammond, 2009, p. 5).

Darling-Hammond (2009), shared “the type of support and on-the-job training most teachers receive is episodic, often fragmented and disconnected from real problems of the practice” of teaching (p. 9). Most states are still not providing the kind of professional learning that research suggests improves teaching practice and student outcomes. “The good news is that we can learn from what some states and most high-performing nations are doing.”

For this study, a review of the professional development support provided by 13 state school systems that are located within the Appalachian Mountain Region was conducted. Table 2 shows those states of Appalachia and their support for professional development for teachers through state policy mandates (Rich, 2007).

Table 2

State Support for Professional Development for Teachers

	Requires time to be set aside for PD	Requires a specific amount of time to be set aside for PD	Finances PD programs	Finances PD for all districts	State has PD standards	Offers PD opportunities online	Offers PD in the use of data for instruction	Induction program for new teachers	Requires and finances mentoring for all novice teachers	# of years of mentoring required	# of years of state financed mentoring	Requires mentors & assigned teachers to be matched by school, grade, etc	Licensure incentive for NBCT	Financial Incentives for NBCT
AL	X	X	X	X	X	X							X	X
GA	X	X	X	X	X	X	X						X	X
KY	X	X	X	X	X	X		X	X	1	1	X	X	X
MD			X	X	X	X	X	X		1			X	X
MS					X	X	X	X		1			X	X
NY			X		X	X	X						X	X
NC			X	X	X	X	X	X	X	3	2		X	X
OH			X		X	X		X	X	1	1		X	X
PA			X	X	X	X	X	X		1			X	
SC	X	X	X	X	X	X		X	X	1	1		X	X
TN	X	X	X	X	X		X						X	
VA			X	X	X	X	X	X	X	1	1	X	X	X
WV	X	X	X	X	X	X	X	X	X	1	1	X	X	X
Total	6	6	12	10	13	12	9	9	6			3	13	11

As noted, the states are at various stages in supporting professional development for their teachers. Only six states require a specific amount of time to be set aside for professional development activities. While nine states require an induction program for new teachers and only six of the states provide financing for all novice teachers. All of the states do provide licensure incentives for teachers to become national board certified with 11 out of 13 giving financial incentives for completing the certification.

National Board Certified Teachers

A program to recognize effective teaching is the National Board for Professional Teaching Standards (NBPTS). “National Board Certification is a voluntary assessment program designed to improve student learning by recognizing and rewarding highly accomplished teachers and improving overall teaching effectiveness” (NBPTS, p. 2, nd). National Board Certified Teachers (NBCTs) were chosen for the population of this study because research is consistently positive about the impact of NBCTs on improvements to teacher practice, professional development, and areas of school improvement that are critical to raising student achievement. More than 64,000 teachers are currently certified as highly accomplished in 24 fields and developmental levels. To become certified, teachers spend one to three years demonstrating what they know and can do through rigorous assessment.

The mission of the National Board for Professional Teaching Standards is to advance the quality of teaching and learning by: (a) maintaining high and rigorous standards for what accomplished teachers should know and be able to do, (b) providing a national voluntary system certifying teachers who meet these standards, and (c) advocating related education reforms to integrate National Board Certification in American education and to capitalize on the expertise of National Board Certified Teachers (<http://www.nbpts.org>).

NBPTS was created in 1987 after the Carnegie Forum on Education and the Economy’s Task Force on Teaching as a Profession released *A Nation Prepared: Teachers for the 21st Century*. Shortly after its release, NBPTS issued its first policy statement: *What Teachers Should Know and Be Able to Do*. This policy set forth the vision for accomplished teaching. The Five Core Propositions form the foundation and

frame the rich blend of knowledge, skills, dispositions and beliefs that characterize National Board Certified Teachers (NBCTs): (a) Teachers are committed to students and their learning, (b) teachers know the subjects they teach and how to teach those subjects to students, (c) teachers are responsible for managing and monitoring student learning, (d) teachers think systematically about their practice and learn from experience, and (e) teachers are members of learning communities.

The President of the National Education Association (NEA), Weaver, stated “those who seek National Board Certification aspire to the highest credential in the teaching profession. In doing so, they demonstrate their commitment to teaching excellence by participating in the most rewarding – and most demanding – professional development experience of their careers” (NBPTS, p. 14, nd). Anne L. Bryant, Executive Director for the National School Boards Association (NSBA), shared “what we have found is that teachers who go through the National Board Certification process become the school district’s best change agents to raise the level of classroom instruction, which results in greater student achievement” (NBPTS, p. 15, nd).

School systems which support National Board Certification will find: (a) improvements in student learning, (b) the needs of high-risk students being met, (c) a greater ability to attract and retain new teachers, (d) the modeling of successful teaching practices, (e) teachers working effectively with parents, (f) learning communities, and (g) implementation of standards-based curriculum and assessment (<http://www.nbpts.org>).

Appalachian Mountain Region

History

In the mid 1960s, at the urging of two U.S. presidents, Congress created legislation to address the persistent poverty and growing economic despair of the Appalachian Region. A few statistics tell the story: (a) One of every three Appalachians lived in poverty, (b) per capita income was 23% lower than the U.S. average, and (c) high unemployment and harsh living conditions had, in the 1950s, forced more than 2 million Appalachians to leave their homes and seek work in other regions.

In 1960, the region's governors formed the Conference of Appalachian Governors to develop a regional approach to resolving these problems. In 1961, they took their case to newly elected President Kennedy, who had been deeply moved by the poverty he saw during campaign trips to West Virginia. In 1963 President Kennedy formed a federal-state committee that came to be known as the President's Appalachian Regional Commission (PARC), and directed it to draw up "a comprehensive program for the economic development of the Appalachian Region." The resulting program was outlined in an April 1964 report that was endorsed by the Conference of Appalachian Governors and Cabinet-level officials.

Subsequently, President Johnson used PARC's report as the basis for legislation developed with the bipartisan support of Congress. Submitted to Congress in 1964, the Appalachian Regional Development Act (ARDA) was passed early in 1965 by a broad bipartisan coalition and signed into law (PL 89-4) on March 9, 1965.

Demographics

The Appalachian Region's economy has become significantly more diversified over the past 15 years. Once highly dependent on heavy industry, agriculture, and

mining, the region today is becoming increasingly reliant on jobs in service industries, retailing, and government. In 1965, one in three Appalachians lived in poverty. By 1990, the poverty rate had been cut in half. These gains have transformed the region from one of almost uniform poverty to one of contrasts: some communities have successfully diversified their economies; some are still adjusting to structural changes in declining sectors; and some severely distressed areas still require basic infrastructure, such as water and sewer systems.

These contrasts are not surprising in light of the region's size and diversity. The 1990 Census data show that metropolitan counties in northern and southern Appalachia had poverty rates slightly below the national average of 13.1%. In rural areas of northern and southern Appalachia, the poverty rate was 16%. In central rural Appalachia the poverty rate was nearly 27%.

The region's educational attainment levels have improved sharply since 1960. In 1990, for the first time, the share of people aged 18 to 24 with 12 or more years of schooling was slightly higher in Appalachia (77%) than in the U.S. (76%). However, considerable educational deficits remain, particularly in central Appalachia, where the average high school completion rate for this age group is only 68%. Reflecting the educational shortcomings of past decades, only 68.4% of Appalachian adults aged 25 years and older are high school graduates, compared with 75.2% for the United States (<http://www.arc.gov>). (See Appendix B for maps representing Appalachia and its economic status, population density, and high school/ college completion rates).

Table 3 provides the average daily attendance in public elementary and secondary schools, the percentage of students receiving a free/reduced lunch (Low

SES), the number of high school graduates, and the average salary for teachers in the states of Appalachia (<http://www.nces.ed.gov>).

Table 3

Public School Data for the 13 States of Appalachia

	Daily Attendance Fall 2007	Natl. Rank	% Low SES Fall 2007	Natl. Rank	High School Graduates 2005-2006	Average Teacher Salary 2007-2008
Alabama	749,123	23 rd	53.6	11 th	37,380	46,604
Georgia	1,678,895	9 th	53.3	12 th	74,610	51,560
Kentucky	683,489	25 th	53.9	10 th	38,010	47,207
Maryland	854,341	20 th	34.0	40 th	55,720	60,069
Mississippi	494,789	31 st	68.7	2 nd	24,100	42,403
New York	2,806,000				160,860	62,332
North Carolina	1,472,174	10 th	49.7	16 th	77,980	47,354
Ohio	1,832,000				119,800	53,410
Pennsylvania	1,812,000				126,930	55,833
South Carolina	704,359	24 th	55.0	8 th	34,970	45,758
Tennessee	968,332	16 th	51.8	13 th	48,120	45,030
Virginia	1,234,096	12 th	32.4	43 rd	74,730	46,690
West Virginia	278,977	38 th	55.5	6 th	16,850	42,259
United States	49,644,088		45.8		2,886,520	52,308

Summary

A review of the literature supported that the No Child Left Behind (NCLB) Act legislated sweeping changes for public education in the United States. The literature also acknowledged with high-quality professional development, comes marked improvement (changes) to teaching practices and student learning. To ensure students in America meet and exceed high standards at all levels, improving professional learning will be crucial to achieving this goal. The review of literature supports a study

to determine the current state of professional development in Appalachia as defined by Title IX of the No Child Left Behind legislation.

CHAPTER THREE: RESEARCH METHODS

With teachers having the greatest influence on student achievement, educational leaders must be held responsible to provide support, technical assistance and professional development to allow all teachers to become highly effective. This study examined the perceptions of teachers, specifically National Board Certified Teachers, regarding the current state of professional development as defined by No Child Left Behind.

Title IX, Section 9101(34)A of the No Child Left Behind legislation defined professional development with a list of 15 activities. A majority of the responses on the *Beck's Professional Development Inventory* (BPDI) were created by rephrasing each professional development activity into a question or response to be completed by the participant.

To achieve the purpose of this study the following research questions were examined:

1. To what extent do teachers perceive they are experiencing high-quality professional development as defined by Title IX of the No Child Left Behind legislation?
2. To what extent do teachers perceive they are being provided a higher QUANTITY of professional development today as compared to prior to the passage of the No Child Left Behind Legislation?
3. To what extent do teachers perceive they are being provided a higher QUALITY of professional development today as compared to prior to the passage of the No Child Left Behind Legislation?

4. To what extent do teachers perceive professional development as assisting them in improving the quality of teaching and learning?
5. Are there differences in teacher perceptions based upon selected demographic information?

The research design employed in the study, the population surveyed, the survey instrument, the data collection, and the methods used to analyze the data have been selected to address these questions. The variables in each of the questions were examined to provide data used to state findings, conclusions, and implications for educators.

Research Design

The study was quantitative in nature because it relied primarily on the collection of descriptive data which was analyzed via statistical relationships. Quantitative research shows a “snapshot in time with no manipulation of data and no attempt to establish causality” (M. Cunningham, lecture, September 19, 2005). It was a descriptive analysis (non-experimental) because it described the variables that existed in a given situation. Fink (2003) defines descriptive designs as “producing information on groups and phenomena that already exist; no new groups are created in the survey study” (p. 161).

Additionally one open-ended question was provided so the respondent could use “his or her own words” (Fink, 2003, p. 142) to describe how NCLB is impacting professional development. This allowed the researcher to collect a limited amount of qualitative data.

Population and Sample

The population in the study was National Board Certified Teachers (NBCTs) registered in the counties located in the Appalachian Mountain Region of the United States. The list of NBCTs was obtained from The National Board of Professional Teaching Standards directory website at <http://NBPTS.org>. There are 64,000 National Board Certified Teachers nationwide with over 5,500 of those teaching in the school districts located along the Appalachian Mountain Region. A stratified random sample was taken with 650 NBCTs contacted by mail and asked to complete a survey (M. Cunningham, personal communication, September 8, 2008).

Appalachia

The Appalachian Mountain Region was chosen because of the area's inherent similarities such as a low minority population rate and a high number of low socio-economic status (low SES) students enrolled in school. A study to assess and build the capacity of teachers in systems and structures of rural schools is often neglected (J. Killion, personal communication, July 3, 2008), and this research will be generalizable to other areas with similar demographics.

The region includes 410 counties in 13 states. It extends more than 1,000 miles, from southern New York to northeast Mississippi, and is home to nearly 23 million people. The Appalachian Regional Commission (ARC) is a federal-state partnership that works with the people of Appalachia to create opportunities for self-sustaining economic development and improved quality of life. Following research on ARC, <http://www.arc.gov/>, it was discovered the Appalachia's states can be divided into three distinct areas or subregions. "The Appalachian subregions are contiguous regions of relatively homogeneous characteristics (topography, demographics, and economics)"

(ARC, 2008). Reference will be made to the northern, central, and southern subregions of Appalachia.

National Board Certification

“The National Board for Professional Teaching Standards improves teaching and student learning” (NBPTS, 2008, p.1). National Board Certified Teachers are highly accomplished educators who meet high and rigorous standards. Like board-certified doctors and accountants, teachers who achieve National Board Certification have met rigorous standards through intensive study, expert evaluation, self-assessment and peer review. In a congressionally-mandated study, National Board Certification was recently recognized by the National Research Council as having a positive impact on student achievement, teacher retention, and professional development (NBPTS, 2008).

NBPTS is an independent, nonprofit, nonpartisan and nongovernmental organization. It was formed in 1987 to advance the quality of teaching and learning by developing professional standards for accomplished teaching, creating a voluntary system to certify teachers who meet those standards and integrating certified teachers into educational reform efforts. NBCTs were chosen for this research population because they are eager to support and build the capacity of teachers and are typical of what we want all teachers to become (J. Killion, personal communication, July 3, 2008).

Instrument

This study utilized a questionnaire created by the researcher and entitled the *Beck's Professional Development Inventory* (BPDI) for data collection (See Appendix A). National Board Certified Teachers (NBCTs) were asked their perceptions of the current state of professional development as defined by NCLB. The responses were

created in an effort to determine if the teachers perceived they had experienced an increase in “high quality” professional development since the passage of the No Child Left Behind legislature.

The BPD I had four sections with the first section gathering demographic information. Items included the state in which the NBCTs worked, sex, location of daily work, their current role as an educator, years of experience, degree held, and the student population size of their local school district. These variables were gathered via radio buttons, except for years of experience and state in which they worked, which utilized fill-ins or drop down choices.

The second section of the BPD I asked only two questions which addressed the No Child Left Behind legislation and the participant’s knowledge of its relationship towards professional development. This portion of the survey was modeled after an earlier nation-wide, online survey conducted by the NSDC in 2004. Radio buttons were once again used and participants were asked to choose one answer among three to five appropriate responses.

The third section of the BPD I was aligned to the definition of professional development as found in Title IX, Section 9101(34)A of the No Child Left Behind legislation. The 15 activities included in this definition were rephrased into a question or response to be completed by the participant.

For example, item (i) from section 9101(34)A states professional development includes activities that: “Improve and increase teachers’ knowledge of the academic subjects the teachers teach”. The survey question created to align with this item is: I have participated in professional development activities which have improved and increased my knowledge of the academic subjects I teach. The respondents were

asked to make a choice on a 5-point Likert scale to answer this statement as it reflects to their experiences with professional development over the past five years. The choices were: Never, Seldom, Sometimes, Frequently, or Always.

The fourth and final section of the BPDJ asked participants to respond as to their perceptions of the outcomes (or results) associated with the passage and implementation of the NCLB legislation. Through the use of radio buttons, they chose if NCLB had changed the QUANTITY and QUALITY of professional development offered by their school district. "These questions used a scale of measurement that is characterized by an underlying continuum that is ordered" known as ordinal data (Salkind, 2004, p. 386). Furthermore, they marked responses on their perception of the effect of professional development as it relates to improving the quality of their teaching and increased student learning.

The final two questions were different in the type of response requested from the participants. They were asked to "mark as many as applicable" when asked to share the types of professional development they had participated in over the past year. Choices included conferences, training by another person, one-on-one coaching/mentoring, group learning, and a college course. Lastly, they had the opportunity to provide any additional information concerning their personal experiences with how NCLB is impacting professional development. This was an open-ended question in which they could give as much information or details as they chose.

A pilot study was completed to insure readability and face validity. Three pilot groups were asked to complete the online survey. They were: (a) a group of 25 teachers participating in a federally funded, 3-year Math and Science Partnership Grant; (b) 21 teachers participating in a cohort noted as "teacher leaders;" and (c) 50

principals, assistant principals, and perspective administrators participating in a year-long professional development group. Following completion of the online survey, the pilot group completed a questionnaire noting any needed changes or clarifications. Upon receipt of these responses, the researcher revised the questionnaire as necessary and prepared it for use by the 650 National Board Certified Teachers across the Appalachian Mountain Region of the United States.

Data Collection

To survey National Board Certified Teachers working in the Appalachian Mountain Region, first the total number of NBCTs registered in the northern, central, and southern subregions of Appalachia was determined. At the time of collection, there were 5,566 teachers registered. The numbers were: (a) Northern – 595 teachers or 11% of the total, (b) Central – 261 teachers or 5% of the total, and (c) Southern – 4710 or 84% of the total.

Then to insure the percentages surveyed for each subregion remained the same for the sample population, a simple mathematical equation was completed for each area. The numbers determined to be surveyed were: (a) Northern – 72 teachers, (b) Central – 33 teachers, and (c) Southern – 545 teachers.

In order to choose 72 NBCT teachers from the northern subregion of Appalachia, they were randomly selected using a randomization tool found on <http://www.random.org>. Very easily, the range of 1 to 595 was set using the online platform with a request to randomly “find” 72 numbers. The program chose the numbers requested and they were then matched with the original database of NBCT registered in Northern Appalachia. The process continued for the remaining two subregions.

The researcher mailed the selected teachers an introductory letter (See Appendix A). Each letter included a personal greeting to the individual and was mailed to the address of their local school district. This address was used because each NBCT registers with the National Board of Professional Teaching Standards directory website noting their district of employment and their city/state of residency. They have the opportunity to update their personal and employment information as changes are made. The local school district address was easily obtained by visiting <http://www.schooldatadirect.org>. This user-friendly website is “a place for educators, researchers, and policymakers to access information about public schools”.

With the letter was a copy of the *Beck's Professional Development Inventory* along with a self-addressed, stamped envelope. The letter provided information about the study including the purpose of the study, the procedures for gathering data, and instructions for completing and returning the *Beck's Professional Development Inventory*. Participants were also given the option, if they preferred, of completing an identical survey instrument online at <http://www.surveymonkey.com>. If they chose the online method of reporting, they were asked to return the unused hardcopy of the instrument in the return envelope.

Additionally, participants were told they had the option of participating or not participating in the study and were told of the means used to ensure the confidentiality of their responses. They were invited to request results of the study if they so desired. The goal of return rate, either through the hardcopy instrument or online survey method, of 50% plus one was used to strengthen generalizability.

Data Analysis

In order to analyze the data, comparisons were made based on Chi-square and Kruskal-Wallis nonparametric tests. The first research question was answered from the third section of the *Beck's Professional Development Inventory* (BPD_I), items 10 - 27. Respondents made a choice on a 5-point Likert scale. The choices were: Never, Seldom, Sometimes, Frequently, or Always. Using the Chi-square test, the frequency of the respondents was compared for each variable to examine the extent teachers perceive they are experiencing high-quality professional development as defined by Title IX of NCLB.

The second, third, and fourth research questions were each assigned one item from the survey instrument to address the specific research questions. The Chi-square statistic was also used to analyze the following survey questions:

- Item 28 answered the second research question regarding the perception of the QUANTITY of professional development
- Item 29 answered the third research question regarding the perception of the QUALITY of professional development
- Item 30 answered the fourth research question regarding the perception of professional development as assisting in improving teaching and learning

In order to answer research question five: Are there differences in teacher responses based upon selected demographic information? The Kruskal-Wallis, one-way analysis of variance was used. Additional data analysis was conducted from the survey responses as deemed necessary. Participant demographics collected from items 1 – 7 were used as the independent variable factors to compare teacher perception responses in items 8 – 30.

Summary

The procedures described were used to examine the current state of professional development in the Appalachian Mountain Region of the United States. This study was descriptive in nature and used as its population the National Board Certified Teachers working in Appalachia.

CHAPTER FOUR: PRESENTATION OF FINDINGS

The goal of this study was to determine if educational leaders are providing support and continued high-quality professional development to assist teachers in meeting the mandates and changes associated with the No Child Left Behind legislation. Specifically, the study sought to determine if the National Board Certified Teachers (NBCT) working within the Appalachian Mountain Region perceive they are experiencing high-quality professional development as defined by Title IX, Section 9101 (34)A of the NCLB Act.

Response

The population in the study was National Board Certified Teachers (NBCT) registered as living and working in the 13 states of the Appalachian Mountain Region of the United States. Appalachia covers 410 counties from New York State to Mississippi and can be divided into three subregions with similar topography, demographics, and economics. The three subregions are: Northern, Central, and Southern Appalachia.

The list of NBCTs was obtained from The National Board of Professional Teaching Standards directory website at <http://NBPTS.org>. There are 64,000 National Board Certified Teachers nationwide with over 5,500 of those teaching in the school districts located along the Appalachian Mountain Region.

To complete this study, a stratified random sampling was conducted then 650 NBCTs were contacted by mail and asked to complete the *Beck's Professional Development Inventory* (BPD I). Respondents could choose to complete a paper copy of the survey instrument or an identical electronic survey created using SurveyMonkey. The electronic survey could be easily accessed by a hotlink provided by www.surveymonkey.com. The BPD I is a researcher-designed survey that yielded

quantitative data to describe the perceptions of NBCTs and their professional development opportunities since the passage of the No Child Left Behind legislation.

The first mailing was sent on March 23, 2009 with over 150 completed surveys received in just over two weeks (April 10th). By April 27th, 34 surveys had been “returned to sender” due to incorrect addresses or “the individual no longer works here” noted on the envelope. On this date, 182 completed surveys had been received from the NBCTs. By early May, all individuals not responding to the first request were mailed a second letter and one more copy of the survey. This additional request gained another 100 completed surveys prior to the Memorial Day Holiday and what is typically deemed the end of the school term. Just a few more surveys were received in early June.

The total number of NBCTs who returned a completed paper copy of the BPDl was 262. Approximately 10%, or only 28 participants, chose to complete the survey electronically bringing the final total to 290 completed surveys.

Five of the surveys were deemed unusable because the participant marked either “central office” or “professional development center” as their daily work place. This study focused on the perceptions of NBCTs who were currently working in either an elementary, middle, or high school setting. After removing these 5 surveys, the total number of BPDl for analysis was 285, giving a response rate for the sample population at 47%. Table 4 provides a descriptive analysis of the NBCT registered in the Appalachia Subregions and the number of responses received from each subregion.

Table 4

NBCT in Appalachia Subregions

	Total NBCT	% of NBCT	Surveys Mailed	Responses Received
Northern	595	11	72	41
Central	261	5	33	15
Southern	4710	84	545	229
Total	5566	100	650	285
Number of Surveys Returned to Sender				39
Number of Surveys Deemed Unusable				5
Response Rate		47 percent = 285/606		

Demographic Data

The *Beck's Professional Development Inventory* (BPD_I) collected demographic data from respondents. The information included the state in which the respondents taught, their daily work places, number of years they have been educators, their highest degrees achieved, and the student population for their school districts. Tables providing the respondents' selections from items 1 – 7 on the BPD_I are presented in Appendix C.

States Where NBCT Work

The Appalachian Mountain Region includes all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia. Participants were asked to identify the state in which they were teaching. The largest groups of respondents were from the southern region of Appalachia (North Carolina and South

Carolina). This is proportional to the number of surveys initially mailed to the large number of National Board Certified Teachers registered in those two states.

Daily Work Place

On the BPDl, participants were asked to identify his or her daily work place. Selections included: elementary school, middle level school, high school, central office, professional development center, or other (please specify). Those choosing either the central office or professional development center as their daily work place were removed from the population to be analyzed. As noted in the Response Rate section of this chapter, this study focused on the perceptions of NBCTs who were currently working in a school setting. There were a total of 5 respondents' surveys deemed as unusable.

In a few responses, participants marked "other" and explained their school/grade level configuration. These responses were reviewed and then either placed in an elementary, middle, or high school level as noted in a pre-determined ranking. The determination was aligned to the highest grade level in that setting. For example, a grade span of K -2 was marked as elementary, a grade span of K – 8 was marked as middle school, and a grade span of 7 – 12 was marked as high school. A majority, or over one-half of the respondents, works in an elementary school setting (51.22%).

Years as an Educator

Participants were asked to identify the number of years in which they had been an educator. Responses ranged from 6 years to 40 years. To become a National Board Certified Teacher one must have at least three years of teaching experience and then complete the steps to become nationally certified. This process takes 1 ½ to 3 years to

complete depending on the rate at which the individual completes each component. The least years of experience that could have been noted by the respondents would have been five years. Their responses were stratified into eight categories. They were: 5 – 9 years, 10 – 14 years, 15 to 19 years, 20 to 24 years, 25 to 29 years, 30 to 34 years, 35 to 39 years, and 40 years or more. The largest number, over one-fourth of the respondents, had been educators between 15 to 19 years (25.61%) with the next largest group of respondents teaching for 10 to 14 years (20.70%).

Degree Achieved

Respondents were asked to indicate their highest degree of education from four possible choices available. The choices were: Bachelors, Masters, Education Specialist, or Doctorate Degree. Out of 285 participants, 198 marked they had received their Masters Degree (69.47%).

Student Population

The participants for this survey were asked to note the size of their school district by marking their total student population. For other demographic questions on the BPDl, only one to five participants chose to leave the item blank and not respond. For this question, 51 individuals marked they “did not know” the student population for their school district. Of the remaining responses, over 50% of the districts in which the NBCTs worked were either less than 5,000 students (25.26%) or had a total student population between 5,001 to 10,000 students (24.91%). Only 37 respondents noted they worked in a district of more than 25,000 students (12.98%).

Findings

Findings of the study are presented in this section along with a discussion of each of the five research questions posed in Chapter One. The statistical significance was set at an alpha level of $p < .05$. To test for statistical significance a series of nonparametric tests were run using SPSS 16.0.

High-Quality Professional Development as Defined by NCLB

Respondents to the BPDJ were asked to rank their knowledge of the NCLB law/requirements related to professional development. Their choices were: (a) I did not know NCLB includes provisions related to professional development, (b) what others tell me, (c) based on some reading, (d) knowledgeable about certain provisions, or (e) comprehensive knowledge of the law.

Only 8% ($n = 285$) of the respondents marked they had a “comprehensive knowledge of the law” with 27% ($n = 285$) of the respondents sharing they “did not know NCLB included provisions related to professional development” or they were only familiar with “what others had told them.” The largest percentage (42%, $n = 285$) of NBCTs marked they were “knowledgeable about certain provisions” of the NCLB law/requirements related to professional development. Table 5 shows the pattern of response (Chi-square) for item 8 on the BPDJ and shows significance with a probability level of .000.

Table 5

Knowledge of the NCLB Law/Requirements Related to Professional Development

Chi-square significance attained at a p level of .000		
	Number of Respondents	% of Respondents
I did not know NCLB includes provisions related to professional development	34	11.93
What others tell me	42	14.74
Based on some reading	63	22.11
Knowledgeable about certain provisions	119	41.75
Comprehensive knowledge of the law	25	8.77
Non-responses	2	0.70
Total	285	100.00

Respondents were also asked to respond to a statement that NCLB includes a 1 ½ page definition of professional development by indicating if they had: (a) Never heard or read that the law includes a definition of professional development, (b) heard or read that the law includes a definition of professional development, or (c) read this definition of professional development or read/heard an explanation of it.

Almost 38% (n = 285) of the participants had “never heard or read that the law includes a definition of professional development” with another 40% sharing that they had only “heard or read that the law includes a definition of professional development”. From this group of NBCTs, only 22% had actually read the definition of high-quality professional development provided by the NCLB legislation. Table 6 shows the pattern

of response (Chi-square) for item 9 on the BPD1 and shows significance with a probability level of .000.

Table 6

Knowledge of NCLB's 1 ½ Page Definition of Professional Development

Chi-square significance attained at a p level of .000		
	Number of Respondents	% of Respondents
Never heard or read that the law includes a definition of PD	108	37.89
Heard or read that the law includes a definition of PD	114	40.00
Read this definition of PD or read/heard an explanation of it	63	22.11
Non-responses	0	00.00
Total	285	100.00

Research Question 1: To what extent do teachers perceive they are experiencing high-quality professional development as defined by Title IX of the No Child Left Behind Legislation?

National Board Certified Teachers were asked to mark the responses that most accurately reflect their experiences with professional development over the past five years. The choices provided, to indicate their perception of professional development opportunities, were aligned with the activities found in the definition of professional development provided in Title IX, Section 9101(34)A of the NCLB legislation. The rating scale for this instrument was as follows: 1 = "Never", 2 = "Seldom", 3 = "Sometimes", 4 = "Frequently" and 5 = "Always".

Based on the results of a Chi-square analysis, each of the 18 items showed significance at the probability level of .000. According to Norusis (2006), a probability

level of .000 means that the “observed significance level is less than .0005” (p. 240).

Table 7 shows the Chi-square analysis and significance level for each item associated with the activities aligned to the NCLB definition of high-quality professional development.

Table 7

Chi-Square Analysis of Teacher Perceptions of Experiencing High-Quality Professional Development as Defined by NCLB

Professional development activities ...	Never	Seldom	Sometimes	Frequently	Always	Non-Responses	p*
10. have improved and increased my knowledge of the academic subjects I teach.	3	23	96	112	48	3	.000
11. are an integral part of broad school wide educational improvement plans.	4	17	66	114	80	4	.000
12. are an integral part of broad district wide educational improvement plans.	3	22	75	111	70	4	.000
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	2	23	105	116	35	4	.000
14. have afforded me the opportunity to improve my classroom management skills.	13	40	126	75	27	4	.000
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	4	34	122	90	30	5	.000
16. are one-day or short-term workshops or conferences.	3	17	62	140	58	5	.000
17. support the recruiting, hiring, and training of highly qualified teachers.	23	66	89	62	31	14	.000
18. advance teacher understanding of effective instructional strategies	2	21	78	126	50	8	.000

Professional development activities ...	Never	Seldom	Sometimes	Frequently	Always	Non-Responses	p*
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	1	11	88	134	44	7	.000
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	2	9	61	123	83	7	.000
21. are developed with extensive participation of teachers.	14	58	104	77	26	6	.000
22. provide training for teachers in the use of technology.	2	35	101	122	19	6	.000
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	13	80	77	69	37	9	.000
24. provide instruction in methods of teaching children with special needs.	10	68	134	57	9	7	.000
25. provide instruction in methods of teaching children with limited English proficiency.	37	101	97	39	4	7	.000
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	5	37	106	109	22	6	.000
27. include instruction in ways that teachers may work more effectively with parents.	27	89	123	33	7	6	.000

*Significance attained at $p < .05$. A p level of .000 in SPSS means $p < .0005$.

The Chi-square frequencies that resulted from participant responses to the 18 activities defining high-quality professional development revealed a variety of teacher perceptions in the occurrence of such activities. Of those persons responding, 72% perceived their professional development activities were aligned with and directly related to state academic content standards, student academic achievement standards, and assessments. An activity receiving a mid-range ranking of 56% was professional development activities have improved and increased their knowledge of the academic subjects they teach. While only 42% perceive professional development activities are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.

Several of the activities ranking 38% or less were: (a) holding professional development training sessions that are NOT one-day or short-term workshops; (b) involving the teachers extensively when developing professional development; (c) supporting the recruiting, hiring, and training of highly qualified teachers with professional development; (d) providing the opportunity to improve my classroom management skills, and (e) regularly evaluating professional development sessions for their impact on increased teacher effectiveness and improved student academic achievement. The assortment of varied teacher perceptions in the occurrence of professional development activities are shown in Table 8.

Table 8

Teacher Perceptions of Experiencing High-Quality Professional Development as Defined by NCLB

Professional development activities ...	% = Always + Frequently Responses*
10. have improved and increased my knowledge of the academic subjects I teach.	56.14
11. are an integral part of broad school wide educational improvement plans.	68.07
12. are an integral part of broad district wide educational improvement plans.	63.50
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	52.98
14. have afforded me the opportunity to improve my classroom management skills.	35.78
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	42.10
16. are one-day or short-term workshops or conferences.	69.47
17. support the recruiting, hiring, and training of highly qualified teachers.	32.63
18. advance teacher understanding of instructional strategies	61.75
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	62.45
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	72.28
21. are developed with extensive participation of teachers.	36.14
22. provide training for teachers in the use of technology.	49.47
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	37.19
24. provide instruction in methods of teaching children with special needs.	23.15
25. provide instruction in methods of teaching children with limited English proficiency.	15.08
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	45.96
27. include instruction in ways that teachers may work more effectively with parents.	14.03

*Percentage = Sum of Frequently and Always Responses by the Respondents

In summarizing the findings of research question one, to what extent teachers perceive they are experiencing high-quality professional development, the Chi-square statistic confirmed the participants' distribution of frequencies did not occur by chance and that their responses did have a pattern of preference. Statistical significance was achieved at the probability level of .000.

The Chi-square frequencies that resulted from each response showed the teachers perceive that only 8 of the 18 professional development activities listed from Title IX of the NCLB legislation are occurring 50% of the time or higher. This was determined by finding the sum of those who chose "frequently" or "always" as professional development opportunities occurring over the past five years.

Research Question 2: To what extent do teachers perceive they are being provided a higher QUANTITY of professional development today as compared to prior to the passage of the No Child Left Behind Legislation?

In analyzing this question, a Chi-square statistic was obtained to determine if there was a pattern of preference in the participant's selection. Table 9 shows the pattern of response for the respondent's perception of the QUANTITY of professional development being provided by their local school district and shows significance with a probability level of .000.

To answer this research question, participants were given the following choices for item 28 on the BPD. They were: (a) significantly more professional development than prior to NCLB, (b) somewhat more professional development than prior to NCLB, (c) about the same amount of professional development as prior to NCLB, or (d) less professional development than prior to NCLB.

Almost equal in their response, 39% of the teachers shared that their districts were providing “somewhat” more professional development and 37% noted “about the same amount” of professional development was being provided now as compared to prior to the NCLB legislation. Only 3%, proclaimed their districts were currently providing “significantly more” professional development than prior to NCLB.

In reviewing if teachers perceive they are being provided a higher QUANTITY of professional development today as prior to NCB, the participants’ responses show only 42% perceive this as being true with 17% actually sharing they perceive themselves to be receiving “less” professional development now as prior to the passage of NCLB. Base on these findings, teachers perceive they are NOT being provided a higher QUANTITY of professional development today as compared to prior to the passage of the NCLB legislation.

Table 9

Perception of the QUANTITY of Professional Development

Chi-square significance attained at a p level of .000		
	Number of Respondents	% of Respondents
Significantly more PD than prior to NCLB	8	2.83
Somewhat more PD than prior to NCLB	113	39.64
About the same amount of PD as prior to NCLB	106	37.19
Less PD than prior to NCLB	49	17.19
Non-responses	9	3.15
Total	285	100.00

Research Question 3: To what extent do teachers perceive they are being provided a higher QUALITY of professional development today as compared to prior to the passage of the No Child Left Behind Legislation?

In analyzing this question, a Chi-square statistic was obtained to determine if there was a pattern of preference in the participant's selection. Table 10 shows the pattern of response for the respondent's perception of the QUALITY of professional development being provided by their local school district and shows significance with a probability level of .000.

In response to this research question, participants were given the following choices for item 29 on the BPDl. They were: (a) directly or indirectly improving the quality of professional development, (b) having a marginal effect on improving the quality of professional development, (c) having no effect on professional development, or (d) I do not know how NCLB is affecting professional development.

Almost 43% of the respondents, 122 out of 285, perceived NCLB as "having no effect" on the quality of professional development being offered by their local school district. Only 12% noted that NCLB was "directly or indirectly" improving the quality of professional development and 15% shared they perceived NCLB has having a "marginal" effect on improving the professional development provided by their local school districts. From these findings, only 27% perceive NCLB as having an effect on the QUALITY of professional development offered today as prior to the legislation's passage in 2002. Based on this information, teachers perceive they are NOT being provided a higher QUALITY of professional development today as compared to prior to the passage of the NCLB legislation.

Table 10

Perception of the QUALITY of Professional Development

Chi-square significance attained at a p level of .000		
	Number of Respondents	% of Respondents
Directly or indirectly improving the quality of PD	34	11.92
Having a marginal effect on improving the quality of PD	42	14.73
Having no effect on PD	122	42.81
I do not know how NCLB is affecting PD	82	28.78
Non-responses	5	1.76
Total	285	100.00

Research Question 4: To what extent do teachers perceive professional development as assisting them in improving the quality of teaching and learning?

A Chi-square analysis statistic was performed to determine if there was a pattern of preference in the participant's choice. Table 11 shows the pattern of response for the respondent's perception of the primary result of NCLB requirements concerning professional development and shows significance with a probability level of .009.

To answer this research question, item 30 on the BPDJ specifically asked the participants to name the primary result or outcome of NCLB requirements regarding professional development. Their choices were: (a) improving the quality of teaching, (b) increasing student learning, (c) increasing student test scores, (d) having no discernable effect on improving the performance of educators or students, or (e) I do not know what effect NCLB requirements are having on professional development.

The responses noting the participant perceptions were disbursed across all five choices. The answer chosen the most as the primary result of NCLB requirements concerning professional development was “increasing student learning” with a 26% response rate. “Improving the quality of teaching” and “increasing student test scores” were chosen with a 17% and 16% response rate respectively. Forty-three participants (15%) stated that NCLB was “having no discernable effect on improving the performance of educators or students”. If one perceives increasing student test scores as an indicator also of increased student learning, with a total percentage of 59.31%, teachers perceive professional development as assisting them in improving the quality of teaching and learning.

Table 11

Primary Result of NCLB Requirements Concerning Professional Development

Chi-square significance attained at a p level of .009		
	Number of Respondents	% of Respondents
Improving the quality of teaching	49	17.19
Increasing student learning	75	26.33
Increasing student test scores	45	15.78
Having no discernable effect on improving the performance of educators or students	43	15.08
I do not know what effect NCLB requirements are having on professional development	63	22.12
Non-responses	10	3.50
Total	285	100.00

Research Question 5: Are there differences in teacher perceptions based upon selected demographic information?

The Kruskal-Wallis was used to determine if six categories of demographics made a difference in teacher perceptions according to 21 items on the BPD, item numbers 8 – 28. Results indicated a statistical difference for only 26 of the 126 Kruskal-Wallis Tests that were performed. The 26 items that revealed significance were: States in Which they Taught – 4 items, Subregion in Appalachia – 6 items, Daily Work Place – 11 items, Years as an Educator – 1 item, and Highest Degree – 4 items. The category not indicating any significance was the student population for the local school districts. Tables revealing the complete Kruskal-Wallis findings are presented in Appendix D.

Table 12 shows the Kruskal-Wallis analysis of teacher perceptions showing significance based upon the state in which they taught. Further investigation of the mean ranks for the items showing significance revealed the following information. The NBCTs in the states of Alabama, North Carolina, Pennsylvania, and Virginia appeared to be choosing the higher ranks of “frequently” and “always” when responding to item 10 which asked if professional development activities have improved and increased my knowledge of the academic subjects I teach. The NBCTs in the states of Maryland, New York, and Ohio appeared to be choosing the lower ranks of “never” and “seldom” when responding to the same survey item.

For item 15, the NBCTs in the states of Alabama, Georgia, Kentucky, and Pennsylvania appeared to be choosing the higher ranks when responding to if professional development activities are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom

instruction and the teacher's performance in the classroom. The NBCTs in the states of Ohio and Tennessee appeared to be choosing the lower ranks when responding to the same item.

When asked if professional development activities are one-day or short-term workshops or conferences (item 16), the ranking criteria is reversed. Numerous research projects as well as the definition of high-quality professional development provided by NCLB, all discourage and provide evidence of the ineffectiveness of short-term, "one shot" professional development sessions. So choosing higher ranks for this item is essentially stating teachers are not being provided on-going, sustained professional development opportunities. Those NBCTs in the states showing a mean rank of 150 or higher, revealing that they "frequently" or "always" attend one-day workshops are Maryland, Ohio, Pennsylvania, and South Carolina. Only New York would appear to be choosing "never" or "seldom".

Finally, the NBCTs in the states of Alabama, North Carolina, and Tennessee appear to be choosing higher ranks when asked if professional development activities provide instruction in methods of teaching children with limited English proficiency. While Maryland appears to be the only state choosing more lower ranks of "never" or "seldom" for item 25.

Table 12

*Kruskal-Wallis Analysis of Teacher Perceptions Based upon
State in which they Taught: Alabama (AL) – North Carolina (NC)*

	AL	GA	KY	MD	MS	NY	NC	p*
Professional development activities ...	Mean Rank							
10. have improved and increased my knowledge of the academic subjects I teach.	178.55	147.60	139.11	74.50	124.54	74.50	151.83	.022
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	161.13	153.42	150.93	99.50	126.21	99.50	126.21	.016
16. are one-day or short-term workshops or conferences.	136.13	121.96	141.89	152.50	145.00	12.00	129.65	.032
25. provide instruction in methods of teaching children with limited English proficiency.	160.34	138.68	66.08	19.00	128.07	88.00	166.75	.000

*Significance attained at $p < .05$

Table 12 (continued)

*Kruskal-Wallis Analysis of Teacher Perceptions Based upon
State in which they Taught: Ohio (OH) – West Virginia (WV)*

	OH	PA	SC	TN	VA	WV	p*
Professional development activities ...	Mean Rank						
10. have improved and increased my knowledge of the academic subjects I teach.	74.50	175.06	134..85	100.50	162.50	96.40	.022
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	21.50	153.50	148.08	80.00	119.75	92.68	.016
16. are one-day or short-term workshops or conferences.	202.00	194.93	172.08	117.38	139.62	127.61	.032
25. provide instruction in methods of teaching children with limited English proficiency.	103.00	116.50	149.65	154.50	91.75	73.61	.000

*Significance attained at $p < .05$

Table 13 shows the Kruskal-Wallis analysis of teacher perceptions finding significance based upon the subregion in Appalachia. Further inspection of the mean ranks for the items showing significance revealed that the northern subregion of Appalachia appeared to be consistently choosing the lower ranks of “never” and “seldom” when responding to items 10, 15, 17, 19, and 23. The states included in the northern subregion are: Maryland, New York, Ohio, Pennsylvania, and a large portion of West Virginia. The subregion choosing the higher ranks of “frequently” and “always” would fluctuate between the central and southern categories.

Table 13

Kruskal-Wallis Analysis of Teacher Perceptions Based upon Subregion in Appalachia

	North	Central	South	p*
Professional development activities ...	Mean Rank			
10. have improved and increased my knowledge of the academic subjects I teach.	109.61	141.73	147.27	.016
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	100.29	147.50	146.97	.002
17. support the recruiting, hiring, and training of highly qualified teachers.	106.62	119.61	142.15	.020
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	112.04	140.23	144.23	.044
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	107.10	164.87	142.23	.013
25. provide instruction in methods of teaching children with limited English proficiency.	82.65	67.64	154.14	.000

*Significance attained at $p < .05$

Table 14 shows the significant outcomes using the Kruskal-Wallis analysis of teacher perceptions based upon their daily work place. Upon further investigation of the mean ranks, only one category for the independent variable appeared to be choosing the higher ranks for all items showing significance. When the Kruskal-Wallis test was performed, the elementary school as the participant's daily work place chose the ranks of "frequently" and "always" for the 11 items noted as showing significance. The participant selecting the lower ranks of "never" and "seldom" would fluctuate between the categories of working in a middle school or working in a high school.

Table 14

Kruskal-Wallis Analysis of Teacher Perceptions Based upon Daily Work Place

	Elementary School	Middle School	High School	p*
Professional development activities ...	Mean Rank			
10. have improved and increased my knowledge of the academic subjects I teach.	155.50	133.49	119.08	.003
11. are an integral part of broad schoolwide educational improvement plans.	155.05	127.36	122.82	.004
12. are an integral part of broad districtwide educational improvement plans.	154.23	124.98	126.02	.008
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	151.16	133.87	124.71	.038
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	153.01	128.52	119.52	.003
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	155.16	128.88	114.88	.000
21. are developed with extensive participation of teachers.	153.30	122.25	126.27	.007
22. provide training for teachers in the use of technology.	149.66	137.45	121.01	.028
25. provide instruction in methods of teaching children with limited English proficiency.	147.06	143.35	119.52	.037
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	156.70	127.01	115.61	.000
28. Since the passage of NCLB's accountability requirements, my school district is providing ...	151.28	126.46	120.47	.007

*Significance attained at $p < .05$

Table 15 reveals the significant outcomes using the Kruskal-Wallis Analysis of teacher perceptions based upon their years as an educator. Upon reviewing the mean ranks for the one item showing significance, it appeared that the participants who have been an educator for 35 to 39 years chose the higher ranks of “frequently” and “always” when responding to item 20 on the survey instrument. Four categories were closely ranked and appeared to be choosing the lower ranks of “never” and “seldom” when responding to professional development activities are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments. They were the educators working: 10 to 14 years, 15 to 19 years, 20 to 24 years, and 30 to 34 years.

Table 15

Kruskal-Wallis Analysis of Teacher Perceptions Based upon Years as an Educator

	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	p*
Professional development activities ...	Mean Rank							
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	146.64	138.40	132.97	137.56	147.21	135.98	173.50	.034

*Significance attained at $p < .05$

Table 16 shows the Kruskal-Wallis Analysis of teacher perceptions finding significance based upon their highest degree achieved. When asked if the participants were aware that NCLB contained provisions related to professional development and that the NCLB legislation contained a 1½ page definition of high-quality professional development, the individuals who reported having either an EdS or EdD/PhD degree

appeared to be choosing the higher ranks signifying they had greater knowledge of this NCLB provisions. The participants responding they had a BA/BS degree chose the lower ranks noting they “did not know” or “never read” the NCLB provisions relating to professional development.

Items 17 and 18 showed significance when teacher perceptions were aligned to their highest degree attained. Participants with a BA/BS or EdS degree appeared to be choosing higher ranks when asked if professional development activities supported the recruiting, hiring, and training of highly qualified teachers. The respondents with an EdS or EdD/PhD degree chose higher ranks when asked if professional development activities advanced teacher understanding of effective instructional strategies that are based on scientifically based research.

Table 16

Kruskal-Wallis Analysis of Teacher Perceptions Based upon Highest Degree Attained

	BA/BS	MA	EdS	EdD/PhD	p*
Mean Rank					
8. I consider my knowledge of the NCLB law/requirement related to professional development to be ...	116.85	142.56	149.24	198.94	.033
9. NCLB includes a 1 ½ page definition of professional development. I have ...	116.35	140.58	163.71	220.00	.001
Professional development activities ...					
17. support the recruiting, hiring, and training of highly qualified teachers.	155.86	126.74	155.24	152.31	.042
18. advance teacher understanding of effective instructional strategies that are based on scientifically based research.	127.93	133.34	170.50	165.25	.024

*Significance attained at $p < .05$

In summation, regarding differences in teacher responses on the BPDJ based upon selected demographic information, only 26 of the 126 Kruskal-Wallis tests that were performed revealed statistical significance. To illustrate, on the items showing significance, it does appear that the NBCTs from the northern subregion of Appalachia appeared to be choosing the lower ranks of “never” and “seldom” when responding to the choices of activities listed as high-quality professional development compared to the central and southern subregions. Those participants working in an elementary school setting appear to be selecting the ranks of “frequently” and “always” for the 11 professional development activities noted as revealing statistical significance.

The study did find that there are some differences in teacher responses based upon selected demographic information but was unable to identify specific patterns

across the independent variable categories and the professional development activities defined by Title IX, Section 9101 (34)A of the NCLB legislation. Two activities, or items on the BPD I, did appear as significant in three of the six demographic categories. The items of significance were professional development activities have improved and increased my knowledge of the academic subjects I teach and professional development activities provide instruction in methods of teaching children with limited English proficiency. The demographic categories of significance were the state in which NBCTs taught, the subregion location in Appalachia, and the daily work place of the NBCTs.

Ancillary Findings

Types of professional development. Item 31 on the BPD I listed various professional development opportunities and asked the respondents to check the type of professional development they had participated in over the past year. This survey item did not address a particular research question but was only included to gather ancillary data to compare with current literature and research discussions. The BPD I instructions allowed the respondent to select as many professional development types as were applicable.

The 285 participants selected from: (a) conferences or consultations at the district, regional, state, or national level; (b) training provided by another person (presenter/speaker in a classroom-type setting); (c) one-on-one coaching or mentoring provided by a colleague or a district staff person; (d) group learning with my colleagues (data analysis, walk throughs, study groups, examining student work, etc.); and (e) a college course.

In reviewing their responses, 90% of the participants marked the second choice which indicated they had attended at least one “training provided by another person” in the past year. The professional development opportunity receiving the lowest percentage participating in over the past year was “one-on-one coaching or mentoring.” Table 17 provides a descriptive analysis of the respondent’s opportunities for professional development gathered from item 31 on the BPDl.

Table 17

Frequency of Professional Development Attended in the Past Year as Selected by NBCT

Grade Level	Number of Respondents	% of Respondents
Conferences	209	73.3
Training provided by another person	257	90.2
One-on-one coaching or mentoring	82	28.8
Group learning with my colleagues	218	76.5
A college course	61	21.4

NCLB and its influence on professional development. The final question on the survey, item 32, was the only open-ended response given on the BPDl. Participants had the opportunity to provide any additional information “concerning their personal experiences with how NCLB was influencing professional development.” Out of 285 NBCT completing this survey, 81 chose to respond and provide personal narratives on the effect NCLB has had on professional development (see Appendix E).

The comments were reviewed noting the individual’s description of their personal experiences with NCLB and its influence on professional development and then each

was placed into one of three categories. If the respondent's comment was considered "positive" a plus sign (+) was placed beside the narrative, if considered "negative" a minus sign (-) was marked, and if comments made were "neutral" or included phrases such as "my district was already" those comments were noted with an equal sign (=) to signify that NCLB had neither made a positive or negative effect on professional development.

From the 81 personal narratives given by the individuals responding to this open-ended question, 16 were considered by the researcher to be positive (+), 39 were deemed negative (-), and 26 were placed in the neutral category (=). Almost 50% of the respondents commented negatively when asked to reflect on their personal experiences with NCLB and its influence on professional development. One example of a negative comment is from a National Board Certified Teacher in Alabama, she or he wrote, "Professional development, since NCLB, has seemed to move from how to teach students to how to teach the test. We are getting further away from teaching a love of learning in order to focus on filling in bubbles correctly" (2009).

Next a technique developed in qualitative research was used. For each statement or phrase, key words were noted and then circled so that any patterns would emerge in the participants' responses. Prevailing key words or topics noted in the comments and the number of times that similar response was made regarding NCLB's influence on professional development include: (a) I now focus on student data – 1, (b) caused me to reflect on my actions – 2, (c) NCLB is having little effect – 2, (d) no funds for PD – 4, (e) my district began new programs – 4, (f) NCLB is a disservice – 8, (g) PD is redundant/too broad not meeting my needs – 9, (h) teachers are stressed/feel forced

– 11, (i) teaching now focuses on testing only – 12, (j) focus on improving student learning/instructional practices – 13, and (k) my district was already providing good professional development – 14,

Summary

The statistical analysis described the current state of professional development as defined by the No Child Left Behind. The population for the study, National Board Certified Teachers working in the Appalachia Mountain Region of the United States, were asked their perceptions of receiving and participating in high-quality professional development activities listed under Title IX, Section 910(34)A of the NLB Act . Several of the activities ranking 38% or less were: (a) holding professional development training sessions that are NOT one-day or short-term workshops; (b) involving the teachers extensively when developing professional development; (c) supporting the recruiting, hiring, and training of highly qualified teachers with professional development; and (d) regularly evaluating professional development sessions for their impact on increased teacher effectiveness and improved student academic achievement.

In regards to the QUANTITY of professional development, only 39% perceive their local school districts as providing “somewhat more” professional development with 37% noting “about the same amount” of professional development as prior to the passage of NCLB. Forty-two percent of the NBCT surveyed perceive NCLB as “having no effect” on the QUALITY of professional development offerings provided by their local school districts.

When determining if various demographic factors affected the responses of the National Board Certified Teachers, statistical significance was attained in only 26 of the

126 Kruskal-Wallis Tests that were performed. Daily work place, either in an elementary, middle, or high school, was the greatest demographic determining factor showing that the independent variable influenced the response of the participants to the different items on the BPDI.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Tied to the current federal legislation, the No Child Left Behind Act (NCLB), and all the national influences on American Education which have come before is the need for teachers to receive high-quality professional development. In experiencing high-quality professional development, teachers are able to understand and learn the most effective methods of instruction for working with ALL students, no matter which subgroup they represent. Sanders (1999) found “the single biggest factor affecting academic growth of any population of youngsters is the effectiveness of the individual classroom teacher...It isn’t race, poverty, or even per-pupil expenditure. It’s teachers, teachers, teachers!” (p. 1).

Summary of Purpose

The NCLB mandates legislated sweeping changes for public education in the United States. The legislation has had a broad effect on elementary and secondary education, and the state school systems; local districts, principals, and teachers throughout the nation have felt the consequences and outcomes of this legislation.

With teachers having the greatest influence on student achievement, educational leaders must be held responsible to provide support, technical assistance and professional development to allow all teachers to become highly effective. This study examined the perceptions of teachers, specifically National Board Certified Teachers, regarding the current state of professional development as defined by No Child Left Behind.

The goal was to determine if the educational leaders are providing high-quality professional development to assist teachers in meeting the mandates and changes

associated with NCLB. Participants were requested to share if they perceive experiencing changes in the QUANTITY and QUALITY of professional development since the passage of NCLB. Also they were asked if they perceived that professional development opportunities had improved the quality of teaching and increased student learning.

The study was guided by the following five research questions.

1. To what extent do teachers perceive they are experiencing high-quality professional development as defined by Title IX of the No Child Left Behind legislation?
2. To what extent do teachers perceive they are being provided a higher QUANTITY of professional development today as compared to prior to the passage of the No Child Left Behind Legislation?
3. To what extent do teachers perceive they are being provided a higher QUALITY of professional development today as compared to prior to the passage of the No Child Left Behind Legislation?
4. To what extent do teachers perceive professional development as assisting them in improving the quality of teaching and learning?
5. Are there differences in teacher perceptions based upon selected demographic information?

Summary of Procedures

The population chosen for this study was the National Board Certified Teachers (NBCTs) registered in the 410 counties located in the 13 states of the Appalachian Mountain Region of the United States. National Board Certified Teachers were chosen

because they are highly accomplished educators who meet high and rigorous standards. The list of NBCTs was obtained from The National Board of Professional Teaching Standards directory website at <http://NBPTS.org>. The Appalachian Mountain Region was selected because of the area's inherent similarities such as a low minority population rate and a high number of low socio-economic status (low SES) students enrolled in schools.

The *Beck's Professional Development Inventory* (BPD_I) was developed from a survey conducted by the NCLB Task Force of the National Staff Development Council (2004) and NCLB's definition of professional development found in Title IX, Section 9101(34)A. A majority of the survey focused on the 15 activities that were included in the NCLB definition of high-quality professional development. Participants were asked to mark responses that most accurately reflect their experiences with professional development over the past five years. From these questions, the current state of professional development in Appalachia was analyzed.

To complete this study, a stratified random sampling was taken and 650 NBCTs were contacted by mail. They were asked to complete the *Beck's Professional Development Inventory* (BPD_I). The total number of NBCTs who returned a completed paper copy of the BPD_I was 262. Approximately 10%, or only 28 participants, chose to complete the survey electronically using a hotlink provided by www.surveymonkey.com bringing the final total to 290 completed surveys.

Five of the surveys were deemed unusable because the participants marked either "central office" or "professional development center" as their daily work place. This study focused on the perceptions of NBCTs who were currently working in either

an elementary, middle, or high school setting. After removing these 5 surveys, the total number of BPDl for analysis was 285, giving a response rate for the sample population at 47%.

In order to analyze the data and to determine if statistical significance was achieved, a series of nonparametric tests were run using SPSS 16.0. The use of nonparametric tests allows researchers to analyze data that come as frequencies. Comparisons were made using Chi-square and Kruskal-Wallis statistical tests. The Chi-square technique determines if what is observed in a distribution of frequencies would be what is expected to occur by chance (equally distributed across all levels) or if there really was a pattern of preference. The Kruskal-Wallis one-way analysis of variance tests were used to compare the overall difference between two or more independent samples.

Findings and Conclusions

Research Question 1

The participant responses to the activities defining high-quality professional development revealed a variety of teacher perceptions in the occurrence of such activities. A total response of “always” and “frequently” was used to determine if teachers perceived these activities listed on the BPDl as occurring.

The activity receiving the highest percentage rate of occurrence (72%) was professional development activities are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments. Fifty-six percent (56%) of the respondents perceived that professional development activities have improved and increased their knowledge of the academic subjects they teach. An

activity receiving a lower percentage rate with only 42% responding was professional development activities are seen as high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.

The activities ranking 38% or less of perceived occurrence when asked if participants' local school districts are providing high-quality professional development were: (a) holding professional development training sessions that are NOT one-day or short-term workshops; (b) involving the teachers extensively when developing professional development; (c) supporting the recruiting, hiring, and training of highly qualified teachers with professional development; (d) regularly evaluating professional development sessions for their impact on increased teacher effectiveness and improved student academic achievement; (e) providing instruction in methods of teaching children with special needs or who have limited English proficiency; (f) providing the opportunity to improve classroom management skills; and (g) including instruction in ways that teachers may work more effectively with parents.

The activities ranking the lowest in implementation by the respondents on the BPD I are very similar to the finding of the 2009 report written by Darling-Hammond. *Professional Learning in the Learning Profession* documented the following problems in teacher development: (a) workshop overload – professional development is occurring in isolation as the “flavor of the month” or one-shot workshops that do not go hand-in-hand with school improvement efforts; (b) little intensity, short duration – the average teacher (57%) only receives about two days of training a year in their subject areas; (c) working in isolation – teachers report little professional collaboration in designing curriculum and

sharing practices; (d) major blind spots – more than two-thirds of teachers nationally had not even had one day of training to support special education students; (e) lack of utility – fewer than half of teachers report receiving professional development in areas such as classroom management; and (f) limited influence – less than one-fourth of teachers feel they have great influence over school decisions and policies (p. 5).

Darling-Hammond (2009), shared “the type of support and on-the-job training most teachers receive is episodic, often fragmented and disconnected from real problems of the practice” of teaching (p. 9). Most states are still not providing the kind of professional learning that research suggests improves teaching practice and student outcomes. “The good news is that we can learn from what some states and most high-performing nations are doing” (Darling-Hammond, p. 5).

Only 36% of the respondents perceived professional development as being developed extensively with the participation of the teachers. This is in alignment with Mizell (2009) when he stated that effectiveness of training hinges on teacher input. “Training often begins with an administrator deciding what educators should know and be able to do. Educators are then required to participate in a process where they passively receive instruction about a program or practice they’re expected to implement” (p. 1).

In restating the findings of research question one, the extent to which teachers perceive they are experiencing high-quality professional development, the Chi-square frequencies that resulted from each response showed the teachers perceive that only 8 of the 18 professional development activities listed from Title IX of the NCLB legislation are occurring 50% of the time or higher. This was determined by finding the sum of

those who chose “frequently” or “always” as professional development opportunities occurring over the past five years. Overall, it can be concluded that teachers do NOT perceive they are being provided high-quality professional development to assist them in meeting the mandates and changes associated with NCLB.

Research Question 2

Sanders (1999) stated the single biggest factor affecting academic growth of any population of youngsters is the effectiveness of the individual classroom teacher. With this knowledge, one would perceive that teachers would be presented with more opportunities for high-quality professional development now more than ever. But with regard to the comparison of the QUANTITY of professional development being currently provided as prior to the passage of NCLB, only 39% perceive their local school districts as providing “somewhat more” professional development. This supports Reeves (2007) who declared from the abundant amount of available research, school leaders already know the steps to take that most likely result in improved student achievement “but like in any organization, taking those steps suffers to some degree from a gap between intention and action” (p. 85).

The 37% of NBCT stating they are experiencing “about the same amount” and the 17% sharing they are actually receiving “less” professional development now as prior to NCLB supports Mizell’s (2005) statements when he indicated “too few students experience great teaching daily, too few educators experience professional learning that has a powerful impact on teaching and student performance, and too few school districts prioritize high levels of learning daily for both adults and students (p. 8).

Schmoker (2006), Roy and Hord (2003), and Guskey (2000) held the responsibility for increased, high-quality professional development on school leadership. “Many improvement efforts in education fail simply because the efforts are unclear or misleading about the kind of organizational support required for change” (Guskey, 2000, p. 3). Also, Yoon et al. (2007) reported that intensive professional development efforts offering an average of 50 hours of support a year can make a significant impact on student achievement, raising test scores by an average of 21%. Unfortunately, the majority of teachers in the United States receive no more than about two days (16 hours) of training in their subject area per year.

Darling-Hammond (2009) found that United States teachers average 1,080 hours per year in classroom teaching time, leaving little time for non-classroom professional activities. By contrast, the average instruction time for teachers in other countries is equivalent to 803 hours per year for primary schools and 664 hours per year for secondary schools (p. 11). About 60% of teachers’ time in high-performing countries is spent in student contact, compared with 80% in the United States (Darling-Hammond, 2009, p. 6).

To further support such findings in the literature, that a majority of the NBCT respondents of this study perceive they are NOT being provided a higher QUANTITY of professional development now as prior to the passage of NCLB. Darling-Hammond stated:

The nation lags in providing public school teachers with chances to participate in extended learning opportunities and productive collaborative communities in which they conduct research on education-related topic; to work together on

issues of instruction; to learn from one another through mentoring or peer coaching; and collectively to guide curriculum, assessment, and professional learning decisions (p. 11).

Research Question 3

Even if the QUANTITY of professional development is increased, school systems must also improve upon the QUALITY of professional development as well. Roy and Hord (2003) indicated that system leaders must know and develop others' knowledge of effective professional learning.

Forty-two percent of the NBCTs surveyed perceived NCLB as “having no effect” on the QUALITY of professional development offerings provided by their local school districts. While 14% shared that NCLB is “having a marginal effect on improving” the QUALITY of professional development and almost 12% perceived NCLB as “directly or indirectly improving” the QUALITY of their professional development.

The findings where a small percentage of respondents who specified that NCLB is affecting the quality of professional development is in alignment with Snow-Renner and Lauer's (2005) research that stated “deep changes in teacher instruction, like those required by reformers, takes considerable time” (p. 6). Fullan (2007) argued that professional development does not always lead to professional learning especially if external approaches are not “powerful enough, specific enough, or sustained enough to alter the culture of the classroom and school” (p. 35). To underscore the importance of high-quality professional development being offered to all teachers Easton (2008) stated that “educators must be knowledgeable and wise. They must know enough in order to

change. They must change in order to get different results. They must become learners” (p. 756).

Research Question 4

To analyze if teachers perceive professional development as assisting them in improving the quality of teaching and learning, respondents were asked to mark the PRIMARY result of NCLB requirements concerning professional development. Although not equally distributed, the participant responses were disbursed across all four choices. The largest percentage of respondents, 26%, agreed that NCLB was “increasing student learning” with 17% perceiving that NCLB was “improving the quality of teaching.” Another 16% chose “increasing student test scores” as the primary result of NCLB requirements concerning professional development. If one perceives increasing student test scores as an indicator also of increased student learning, than this study has determined with a total percentage of 59%, that teachers perceive professional development as assisting them in improving the quality of teaching and learning.

But with 15% stating NCLB as “having no discernable effect” on improving the performance of educators or students and over 22% of the NBCTs participating in this survey selecting “I do not know what effect NCLB requirements are having on professional development” when responding to this question on the survey, these conclusions are guarded at best. The varied responses to this survey item are in direct alignment with Mizell (2005) when he warned “though the NCLB’s requirements and funding for professional development should be improving educators’ level of performance, it appears too many teachers still experience professional learning as an onerous obligation rather than a useful and uplifting resource” (p. 1).

“To ensure students in America meet and exceed high standards at all levels, improving professional learning is crucial to achieving this goal” (Hirsh, 2009, p. 1). Hirsh went on to say “the nation’s students deserve to experience effective teaching every day. But ensuring this happens isn’t just about getting rid of poor teachers or recruiting better teachers. We must do more with the talent we have” (p. 1).

Darling-Hammond (1997) asserted that the challenge of ensuring success for all students requires teachers and school leaders to work and learn collaboratively, reflect on their practice, and continually expand their knowledge and skills. Effective professional learning that benefits all students requires teachers to collaborate through joint planning, problem solving, learning and reflection. To further support the related literature, NBCT respondents from this study perceived that their professional development opportunities were regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement only 37% of the time. Without evaluating professional development activities, educational leaders cannot determine the direction to proceed in order to guarantee quality teaching and learning.

Research Question 5

In examining differences in teacher perceptions on the BPDl based upon selected demographic information, only 26 of the 126 Kruskal-Wallis tests that were performed revealed statistical significance. To illustrate, on the items showing significance, it does appear that the NBCTs from the northern subregion of Appalachia appeared to be choosing the lower ranks of “never” and “seldom” when responding to the choices of activities listed as high-quality professional development compared to the central and southern subregions. Those participants working in an elementary school

setting appear to be selecting the ranks of “frequently” and “always” for the 11 professional development activities noted as revealing statistical significance.

The study did find that there are some differences in teacher responses based upon selected demographic information but was unable to identify specific patterns across the independent variable categories and the professional development activities defined by Title IX, Section 9101 (34)A of the NCLB legislation. The rationale for only a small number of tests showing significance may be explained by the sample population being relatively homogeneous.

Although the participants were from 13 different states across the United States, they were very similar in nature. The individuals living in the 410 counties of the 13 states of the Appalachian Region are predominantly white with the rate of low socioeconomic students (low SES) averaging 55% in the school systems. Once highly dependent on heavy industry, agriculture, and mining, the region today is becoming increasingly reliant on jobs in service industries, retailing, and government. In recent decades the poverty rate of Appalachia has been cut in half.

Another factor in determining that the population for this study is relatively a homogeneous group is that the participants for the study were limited to only teachers with National Board Certification. This group is normally seasoned teachers who are thoughtful and reflective in their practices. They have undergone an extensive set of criteria and completed juried lessons to receive their advance certification. With living in a similar geographic and economic area and all participants having National Board Certification, it may only be natural that their responses and perceptions of the

questions asked were somewhat similar in nature, thus explaining why only 26 of the 126 Kruskal-Wallis tests that were performed revealed statistical significance.

Ancillary Findings

Types of professional development. Item 31 on the BPDJ listed various professional development opportunities and asked the respondents to check the type of professional development they had participated in over the past year. This survey item did not address a particular research question but was only included to gather ancillary data to compare with current literature and research discussions. The BPDJ instructions allowed the respondent to select as many professional development types as were applicable.

The 285 participants selected from: (a) conferences or consultations at the district, regional, state, or national level; (b) training provided by another person (presenter/speaker in a classroom-type setting); (c) one-on-one coaching or mentoring provided by a colleague or a district staff person; (d) group learning with my colleagues (data analysis, walk throughs, study groups, examining student work, etc.); and (e) a college course.

In reviewing their responses, 90% of the participants marked the second choice which indicated they had attended at least one “training provided by another person” in the past year. The professional development opportunity receiving the lowest percentage participating in over the past year was “one-on-one coaching or mentoring.”

Only 28% of the respondents stated they had worked with a coach or mentor, yet Joyce and Showers (2002) found participants working with a peer coach proved to be the most effective method for providing professional development. Participants receiving

professional development in this manner have a 95% gain in knowledge, a 95% mastery of the skill, and a 95% ability to transfer or implement the knowledge in the classroom.

NCLB and its influence on professional development. The final question on the survey, item 32, was the only open-ended response given on the BPD. Participants had the opportunity to provide any additional information “concerning their personal experiences with how NCLB was influencing professional development.” Out of 285 NBCT completing this survey, 81 chose to respond and provide personal narratives on the effect NCLB has had on professional development.

From the 81 personal narratives given by the individuals responding to this open-ended question, 16 were considered by the researcher to be positive, 39 were deemed negative, and 26 were placed in the neutral category to signify that NCLB had neither made a positive or negative effect on professional development. Almost 50% of the respondents commented negatively when asked to reflect on their personal experiences with NCLB and its influence on professional development. The prevailing negative comments or key words exhibiting a pattern and the number of times that response was made regarding NCLB's influence on professional development include: (a) NCLB is a disservice – 8, (b) professional development is redundant/ too broad not meeting my needs – 9, (c) teachers are stressed/feel forced – 11, and (d) teaching now focuses only on testing – 12.

These comments that NCLB caused the teachers to feel overwhelmed and stressed is supported by Sunderman et al. (2004) who stated that “NCLB codified into federal law a theory of educational changes that assumes external accountability and

imposition of sanctions will force schools to improve and motivate teachers to improve their instruction practices, resulting in improved student performance” (p. 10).

Sunderman et al. also pointed out that conversations and reports show that teachers felt pressure by new vocabulary terms such as highly-qualified teachers, adequate yearly progress, and high stakes testing. Even Cochran-Smith (2005) noted that critics used the legislation’s title, No Child Left Behind, as a play on words to describe how teachers were feeling about the mandates, No Child Left Untested and No Teacher Left Standing!

Discussion and Implications

Marzano (2003) indicated that of all the factors that affect learning, the quality of teaching is the most important by far. With this being so, one of the most important objectives of any school district is to provide high-quality professional development for their teachers. “What teachers know and can do is the most important influence on what students learn ... Improving the quality of teaching holds the greatest promise for higher levels of student learning for all children” (Berg, 2003, p. 23).

Overall, the study analyzed the NBCTs’ perceptions of support provided by their local school district in addition to their perceptions of the opportunities to attend and participate in high-quality professional development as defined by Title IX of the NCLB legislation. Principals, district level administrators, teacher organizations, and policy makers will find the implications of this study as presented in this section helpful when comparing and determining areas of need for professional development for their teachers. The ultimate goal of providing high-quality professional development is to ensure better instruction which leads to higher student achievement. As with any

organization, this research will allow goal setting and budgets to be planned for implementation with justification of expenditures to stake holders.

Not only do the findings of this study have implications for the design and delivery of professional development to teachers across Appalachia but also to teachers on a national level. This conclusion can be asserted because the findings from this research are very similar to those in Darling-Hammond's recent national report, *Professional Learning in the Learning Profession* (2009).

Due to the increasing demands and responsibilities placed on teachers following the passage of the NCLB federal legislation and accountability standards, "teachers are being asked to do more and more with fewer resources" (NBCT – NC). Another NBCT from North Carolina disclosed, "NCLB is causing too much stress" and a NBCT from South Carolina wrote, "I believe that NCLB, while good-intentioned, places demands on teachers that make them feel the overall goal is unattainable which adds more stress and less motivation".

One activity provided in Title IX of the NCLB definition of professional development specifies professional development should afford teachers the opportunity to improve upon their classroom management skills. With educational leaders knowing "NCLB is causing too much stress" (NBCT – NC) this implies more professional development is needed in such basic areas as classroom management. Teachers need assistance in managing their time and the extra responsibilities placed on them by the NCLB mandates. Sunderman et al. (2004) examined the teacher's views and classroom realities associated with NCLB and noted how the sanctions and pressures are not motivating teachers to change but rather frustrating and overwhelming them. A National

Board Certified Teacher from South Carolina made the following comment on the BPDl. “NCLB ... No Teacher Left Standing! Too many tasks to complete and not enough time takes away from planning opportunities to create innovative lessons for students”.

Only 36% of the participants responding to the BPDl reported that their local district “frequently” or “always” provided them with the opportunity to improve upon their classroom management skills. Darling-Hammond’s findings were similar and revealed that fewer than half of teachers reported receiving professional development in classroom management as well (2009). With the demands placed on teachers today so much more than their predecessors of past decades, instructional leaders can apply these conclusions to establish goals and procedures to meet the classroom teachers’ needs for success.

According to the findings of this study, teachers believe they are not involved in the decision making process. On the BPDl, only 36% of the respondents believe professional development activities are developed with extensive participation of teachers. Professional development opportunities should be designed with input from all stakeholders. Darling-Hammond (2009) noted that teachers have limited influence on professional development with less than one-fourth of teachers feeling they have great influence over school decisions and policies.

By involving the teachers in this process and allowing them to choose their professional development opportunities they would believe their opinions and needs were relevant to their school and district leadership. A National Board Certified Teacher from North Carolina made the following comment on the BPDl:

The intent of the NCLB staff development section is good, plausible, and well thought out. However, one size does not fit all. What I see is LEAs have mandated certain staff development for everyone even though schools are demographically different, especially in terms of needs. I have seen teachers balk at the 'wholesale' staff development because of a perceived lack of relevance. I know of no teacher input in the decision-making process. (2009)

An additional discovery revealed 69% of the participants state their local school districts continue to hold professional development training sessions that are one-day or short-term workshops. This is further verified by only 42% of the respondents perceiving that professional development activities as high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom. Darling-Hammond (2009) confirmed these findings by stating teachers "suffer from workshop overload and that professional development is occurring in isolation as the 'flavor of the month' or one-shot workshops that do not go hand-in-hand with school improvement efforts" (p. 5).

Although research has proven that the most effective methods for professional development include activities that are on-going, sustained and embedded in daily practice (Joyce & Showers, 2002), this study shows educational leaders are still not providing these opportunities for their teachers. One reason for this could be the implementation costs and lack of funding with many school systems reporting the need to reduce budgets for professional development. A National Board Certified Teacher from Georgia commented on the BPDJ that "funding is frozen now for professional development". Also a NBCT from North Carolina made similar comments when he or

she said, “Professional development has been dramatically cut because of lack of funding”.

A second factor in school systems still only offering one-day or short-term workshops could be their need to invest in additional staff members to broaden their professional development opportunities through the use of school level mentors, content specialists, or instructional coaches. A third consideration for school systems not moving towards on-going, school based professional development could be the extensive amount of time involved from initiation to institutionalization of improved professional development standards and opportunities (Fullan, 1991). It is difficult to make changes in past practices but with NCLB accountability mandates and sanctions some are being forced to do so. A NBCT from Virginia commenting on the BPDJ had this to say:

Five years ago my school was accredited with a warning. The county replaced the principal and added a reading specialist (me). Both of us understood the expectations of the state and outlined professional development that would benefit our teachers/students. We have used various methods of professional development such as: conferences, training provided by another person, one-on-one coaching, mentoring, and group learning. Our test scores gradually began rising. Last year our scores earned us the Governor’s Award of Excellence – given for outstanding achievement – not progress. I think our school’s emphasis on professional development as opposed to money spent on packaged programs (even research-based programs) has had a huge impact on our students’ achievement in all content areas.

The findings of this study revealed that teachers do not perceive they are being provided a higher QUANTITY/QUALITY of professional development today as compared to prior to the passage of the NCLB legislation. Therefore a final implication, and possibly the most important, is that school systems need to make more time for professional development by adjusting the daily teaching schedule and incorporating more days for professional development into the teaching contract..

Eighty percent of a teachers' time in the United States is spent in student contact (Darling-Hammond, 2009), leaving a very small portion of their day for grading papers, conferencing with parents, researching best practices, reviewing curriculum materials, completing lesson plans, attending team meetings, etc. This study reviewed the current state of professional development by asking NBCTs their perceptions of participating in high-quality activities as defined by NCLB, but without the adequate time needed, high-quality professional development can not occur.

When comparing the United States to other high-performing countries, "the nation lags in providing public school teachers with chances to participate in extended learning opportunities" (Darling-Hammond, 2009). Policy makers and legislators must find the means in which to afford teachers time to learn. In many instances those who enact educational rulings and legislation are not aware of the actual effect of their actions on the daily functions of those involved in the school setting.

With teachers perceiving only 8 of the 18 professional development activities listed from Title IX of the NCLB legislation as occurring 50% of the time or higher, the findings from this research and the related literature may assist educational leaders and policy makers in two ways. First, they may realize the necessity to increase their

financial commitment and obligations to provide high-quality professional development to their teachers with justifications of these expenditures to their stake holders. Secondly, they will see the need to align any updates to professional development policy or to create new professional development policy rulings that support proven, research-based practices for implementation and delivery of professional development. Finally, educational leaders should remember that only 36% of the NBCTs participating in this study perceive that professional development activities are developed with extensive participation of teachers. Involving the stakeholders in expenditure and policy decisions would not only benefit the teachers of Appalachia but all teachers across the nation. Then in turn increasing the success of their students because “one of the most important factors in a high quality education is the knowledge, experience, and capability of the classroom teacher” (Mid-Atlantic Equity Center, 2009, p. 1).

Recommendations for Further Research

Because only National Board Certified Teachers in Appalachia provided the data for this study, future researchers may want to extend the research questions of this study to NBCTs outside the 13 states of Appalachia. Appalachia was examined as a group because the area has inherent similarities such as a low minority population rate and a high number of low socio-economic status students (low SES). Future researchers may want to choose other states or areas to survey that are also considered a homogenous group or they may want to survey NBCTs working in very different areas of the United States.

Also, the population chosen to participate in a replicated study may not be limited to just those with National Board Certification but include teachers from all

certification and experience levels. The respondents in this survey had no less than six years of experience. The less experienced teachers were excluded by virtue of the fact they did not have adequate years experience to pursue National Board Certification. Gathering the perceptions of teachers at various certification and experience levels may produce different findings.

A final consideration for future research would be to repeat the study after the reauthorization of the No Child Left Behind Act. Various educational groups have been advocating for a new definition of high-quality professional development to be included in the legislation. Researchers could compare the 2001 definition of professional development found in Title IX, Section 9101(34)A of the legislation to the formal definition found in the reauthorized version of NCLB.

Final Thoughts

In the 1960s through the lenses of desegregation, the War on Poverty, and the Race to Space, then President Johnson said “We must open the doors of opportunity. But we must also equip our people to walk through those doors.” In this statement he recognized it is not enough to acknowledge that ALL children deserve a fair and equitable opportunity for a quality education but that we must ensure that it occurs for each and every child in our charge.

Just as in five decades ago, federal funding alone will not make the difference; but it is the classroom teacher that is the greatest determining factor of success for the student. By modifying the intent of President Johnson’s statement, the findings from this research allow the following conclusion to be made: *Not only must we open the doors of opportunity for each and every teacher. But we must equip our teachers to walk through*

those classroom doors by providing them with high-quality professional development to increase the quality of teaching and learning for ALL children.

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APPENDIX A: SURVEY DOCUMENTS

Permission Letter – National Staff Development Council

Consent Letter to Sample Population – March 23, 2009

Consent Letter to Sample Population – Second Request

Survey Instrument – *Beck's Professional Development Inventory* (BPDI)



NATIONAL
STAFF
DEVELOPMENT
COUNCIL

Joellen Killion
Deputy Executive Director

March 18, 2009

Lisa D. Beck
212 Tanglewood Drive
Danville, WV 25053

Dear Ms. Beck:

In reference to several e-mail correspondences and phone conversations held over the past year regarding your dissertation research entitled: *The Current State of Professional Development in Appalachia as Defined by NCLB*, you have permission to adapt questions from the National Staff Development Council's Online Survey of Educators' Experiences with the Professional Development Provisions of NCLB (2005). You may insert those questions into sections of your survey instrument. With the No Child Left Behind legislation turning six years old and talk of reauthorization, your research seeks to gain information on the influence NCLB is having on professional development. These were the same goals of the earlier online survey conducted by NSDC and Hayes Mizell.

I understand your research is being conducted at Marshall University in Huntington, WV and that you will be surveying National Board Certified Teachers (NBCT) that work in the public school districts located in the 13 states along the Appalachian Mountain Region. You have shared that your survey instrument is entitled the *Beck's Professional Development Inventory* and will be mailed to 650 NBCT who have been randomly selected. They will have the choice of completing and returning the paper copy to you or completing an identical survey online.

I look forward to the results of your research. Best of luck.

Sincerely,

10931 W. 71st Place
Arvada, CO 80004-1337
303-432-0958 voice
303-432-0959 fax
303-520-6790 cell
joellen.killion@nsdc.org
www.nsd.org

March 23, 2009

(Name)
(School District)
(Street Address)
(City/State)

Dear

You are invited to participate in a research project entitled "*The Current State of Professional Development in Appalachia as Defined by NCLB*" designed to determine if educational leaders are providing support and continued high-quality professional development to assist teachers in meeting the mandates and changes associated with the No Child Left Behind legislation. National Board Certified Teachers, from New York state to Mississippi, teaching in the 13 states that lie along the Appalachia Mountain Region of the United States will be asked to discuss their perceptions of professional development opportunities and its influences on the quality of teaching and student learning in their local school districts. This research is being conducted as part of my dissertation at Marshall University (Huntington, WV) and has been approved by the Marshall University Institutional Review Board (IRB).

This survey can be completed in one of two ways. You may either choose to complete the enclosed survey and return it in the postage paid envelope or complete an identical electronic survey located at http://www.surveymonkey.com/s.aspx?sm=L1vK6te4NwMSXbiXsusZ7g_3d_3d. Whichever survey you choose to complete (paper or on-line) it should not take you longer than 10 minutes to do so. If you choose to complete the on-line survey, please return the blank paper copy to me in the return envelope. Also, if you would like a hot link to the on-line survey, you may e-mail me at ldbeck@access.k12.wv.us and the link will be forwarded to you for easy access.

Your replies will be anonymous and participation is completely voluntary. There are no known risks involved with this study. If there are any questions you do not want to answer, just simply leave them blank. If you choose to complete the on-line survey, you can delete your browsing history for added confidentiality. Completing either the paper survey or the on-line version indicates your consent for use of the answers you supply. If you have any questions about the study, you may contact my dissertation chair, Teresa Eagle, at 304.746.8924 or t.eagle@marshall.edu. Also, if you have any questions concerning your rights as a research participant you may contact the Marshall University Office of Research Integrity at (304) 696-4303. Please keep this letter for your records.

As a National Board Certified Teacher, I know you care greatly about the quality of instruction and seek daily to improve student learning. My primary duty and responsibility with my local school district is to provide support to our teachers. This is why I have chosen the topic of professional development for my dissertation. I hope you will take just a few moments of your time to help me "paint a picture" of the support and assistance given to teachers since the passage of NCLB. If you would like a copy of the findings of this research study please feel free to contact me.

Sincerely,

Lisa D. Beck

May 5, 2009

Dear National Board Certified Teacher:

You recently received an invitation to participate in a research project entitled *“The Current State of Professional Development in Appalachia as Defined by NCLB.”* As my window for collecting data is coming to a close, I would like to ask if you haven’t responded to take just a few minutes to complete my survey. The goal of this project is to determine if educational leaders are providing support and continued high-quality professional development to assist teachers in meeting the mandates and changes associated with the No Child Left Behind legislation.

You are one of the approximately 5,500 National Board Certified Teachers, teaching in the 13 states that lie along the Appalachia Mountain Region of the United States. Appalachia covers 410 counties from New York State to Mississippi. Your name was randomly chosen from the NBCT Directory to participate in this research being conducted as part of my dissertation at Marshall University (Huntington, WV).

This survey can be completed in one of two ways. You may either choose to complete the enclosed survey and return it in the postage paid envelope or complete an identical electronic survey located at:

http://www.surveymonkey.com/s.aspx?sm=L1vK6te4NwMSXbiXsusZ7g_3d_3d

Whichever survey you choose to complete (paper or on-line) it should not take you longer than 10 minutes to do so. If you would like a hot link to the on-line survey, you may e-mail me at ldbeck@access.k12.wv.us and the link will be forwarded to you for easy access. If you have any questions about the study, you may contact my dissertation chair, Dr. Teresa Eagle, at 304.746.8924 or t.eagle@marshall.edu.

I selected National Board Certified Teachers as the population for my research because I know you care greatly about the quality of instruction and seek daily to improve student learning. If you have not done so already, I hope you will take just a few moments of your time to complete the survey and help me “paint a picture” of the support and professional development afforded to teachers since the passage of NCLB. If you recently returned a survey to me, thank you so much for your assistance.

***I hope the remainder of the school year is very successful for
both you and your students!***

Sincerely,

Lisa D. Beck

Beck's Professional Development Inventory - Revised

1. Participant Demographics & No Child Left Behind (NCLB)

1. I currently work in the following state:

State:

2. My school district is in the following county:

3. I am:

☐ Male

☐ Female

4. My daily work place is at a:

☐ Elementary School

☐ Central Office

☐ Middle Level School

☐ Professional Development Center

☐ High School

5. I have been an educator for the following number of years:

6. The highest degree I have achieved is:

☐ Bachelors Degree (BA or BS)

☐ Education Specialist (EdS)

☐ Masters Degree (MA)

☐ Doctorate Degree (EdD)

7. The student population for my local school district is:

☐ Less than 5,000

☐ 20,001 to 25,000

☐ 5,001 to 10,000

☐ More than 25,000

☐ 10,001 to 15,000

☐ I do not know

☐ 15,001 to 20,000

2. No Child Left Behind (NCLB)

8. I consider my knowledge of the NCLB law/requirements related to professional development to be:

☐ I did not know NCLB includes provisions related to professional development.

☐ What others tell me

☐ Based on some reading

☐ Knowledgeable about certain provisions

☐ Comprehensive knowledge of the law

Beck's Professional Development Inventory - Revised

9. NCLB includes a one and one-half page definition of professional development. I have:

- ☐ Never heard or read that the law includes a definition of professional development
- ☐ Heard or read that the law includes a definition of professional development
- ☐ Read this definition of professional development or read/heard an explanation of it

3. NCLB and Professional Development

According to Title IX, Section 9101 (34)A, of the No Child Left Behind Act, professional development must include specific activities. Please mark the responses that most accurately reflect your experiences with professional development over the past five years.

PROFESSIONAL DEVELOPMENT ACTIVITIES ...

10. have improved and increased my knowledge of the academic subjects I teach.

- ☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

11. are an integral part of broad schoolwide educational improvement plans.

- ☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

12. are an integral part of broad districtwide educational improvement plans.

- ☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.

- ☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

14. have afforded me the opportunity to improve my classroom management skills.

- ☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.

- ☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

16. are one-day or short-term workshops or conferences.

- ☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

17. support the recruiting, hiring, and training of highly qualified teachers.

- ☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

Beck's Professional Development Inventory - Revised

18. advance teacher understanding of effective instructional strategies that are based on scientifically based research. In general, this means such strategies have been proven to work through research, observation, or data analysis, and they are replicable.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

21. are developed with extensive participation of teachers.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

22. provide training for teachers in the use of technology so that technology and technology applications are effectively used in the classroom to improve teaching and learning in the curricula and core academic subjects in which they teach.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

24. provide instruction in methods of teaching children with special needs.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

25. include instruction in the use of data and assessments to inform and instruct classroom practice.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

26. include instruction in ways that teachers may work more effectively with parents.

☐ Never ☐ Seldom ☐ Sometimes ☐ Frequently ☐ Always

4. Results of NCLB

Beck's Professional Development Inventory - Revised

27. Since the passage of NCLB's accountability requirements, my school district is providing:

- ☐ Significantly more professional development than prior to NCLB.
- ☐ Somewhat more professional development than prior to NCLB.
- ☐ About the same amount of professional development as prior to NCLB.
- ☐ Less professional development than prior to NCLB.

28. I believe that in my school district, the NCLB requirements and expectations for professional development are:

- ☐ Directly or indirectly improving the quality of professional development.
- ☐ Having a marginal effect on improving the quality of professional development.
- ☐ Having no effect on professional development.
- ☐ I do not know how NCLB is affecting professional development.

29. Based on my personal experience and knowledge, I believe that to date the PRIMARY RESULT of NCLB requirements concerning professional development is:

- ☐ Improving the quality of teaching.
- ☐ Increasing student learning.
- ☐ Increasing student test scores.
- ☐ Having no discernable effect on improving the performance of educators or students.
- ☐ I don't know what effect NCLB requirements are having on professional development.

30. Please check the type of professional development you have participated in over the past year. (You may choose more than one if applicable.)

- ☐ Conferences/consultations at the district, regional, state, or national level.
- ☐ Training provided by another person (presenter/speaker in a classroom-type setting).
- ☐ One-on-one coaching or mentoring provided by a colleague or a district staff person.
- ☐ Group learning with my colleagues (data analysis, walk throughs, study groups, examining student work, etc.)
- ☐ A college course.

31. Please provide additional information in the space below concerning your personal experiences with NCLB and its influence on professional development:

APPENDIX B: APPALACHIAN REGION MAPS

The Subregions of Appalachia

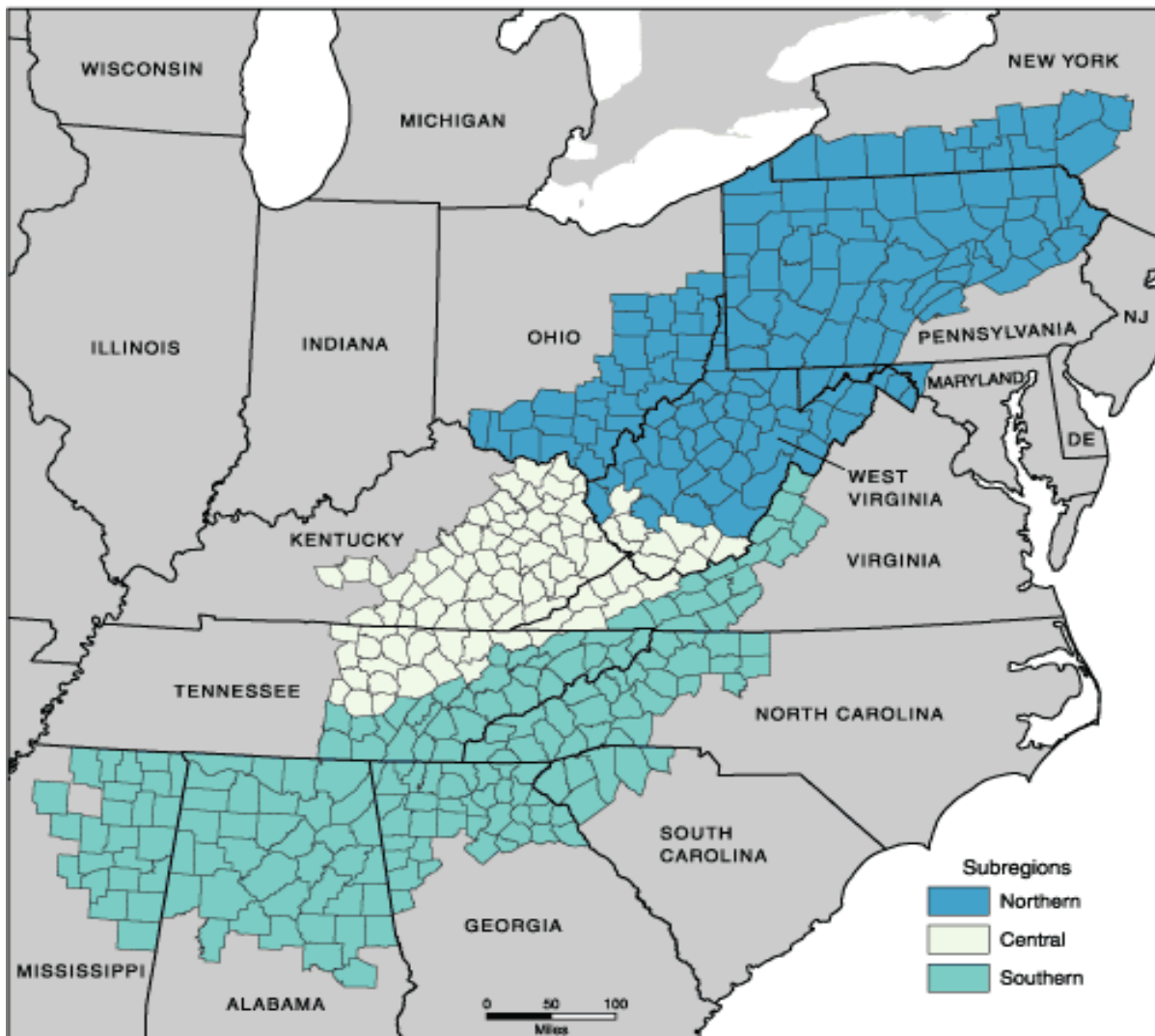
County Economic Status in Appalachia, Fiscal Year 2009

Population Density Rates in Appalachia, 2000

High School Completion Rates in Appalachia, 2000

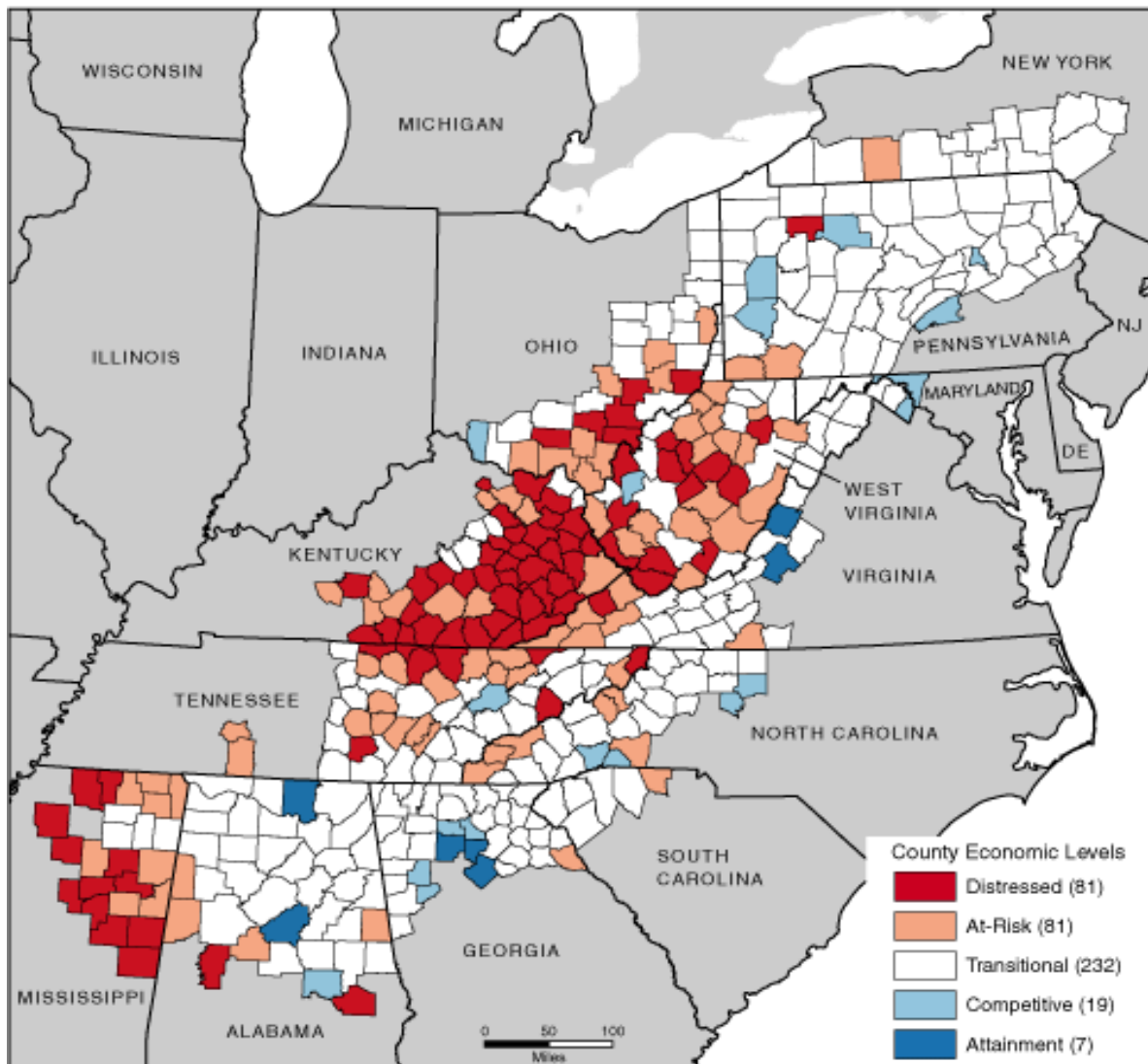
Relative College Completion Rates in Appalachia, 2000

The Subregions of Appalachia



Map Created: June 2002.

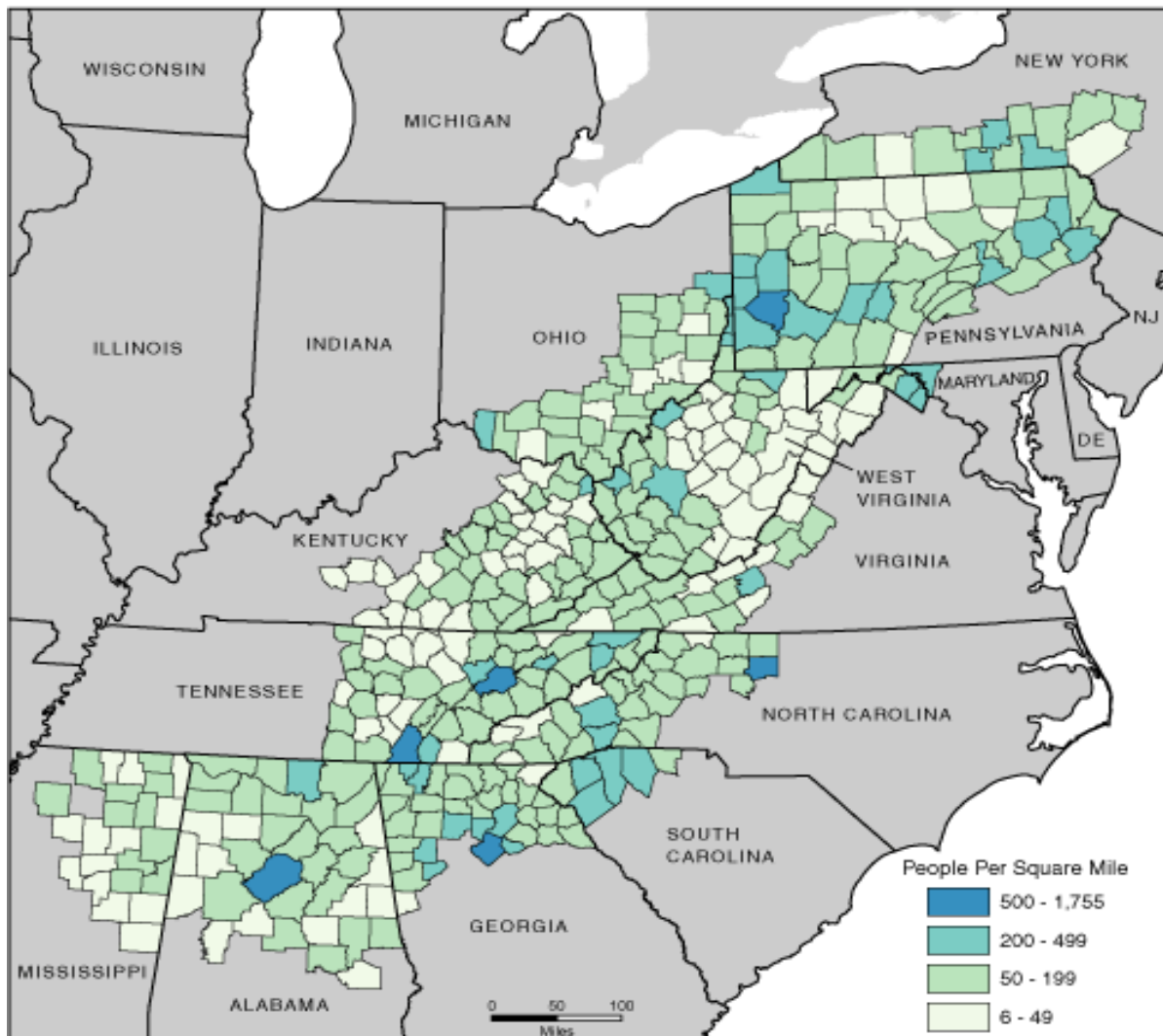
County Economic Status in Appalachia, Fiscal Year 2009



Map by: Appalachian Regional Commission, October 2008.
 Data Sources: U.S. Bureau of Labor Statistics, LAUS, 2004-2006;
 U.S. Bureau of Economic Analysis, REIS, 2005;
 U.S. Census Bureau, 2000 Census, SF3.

Effective October 1, 2008
 through September 30, 2009.

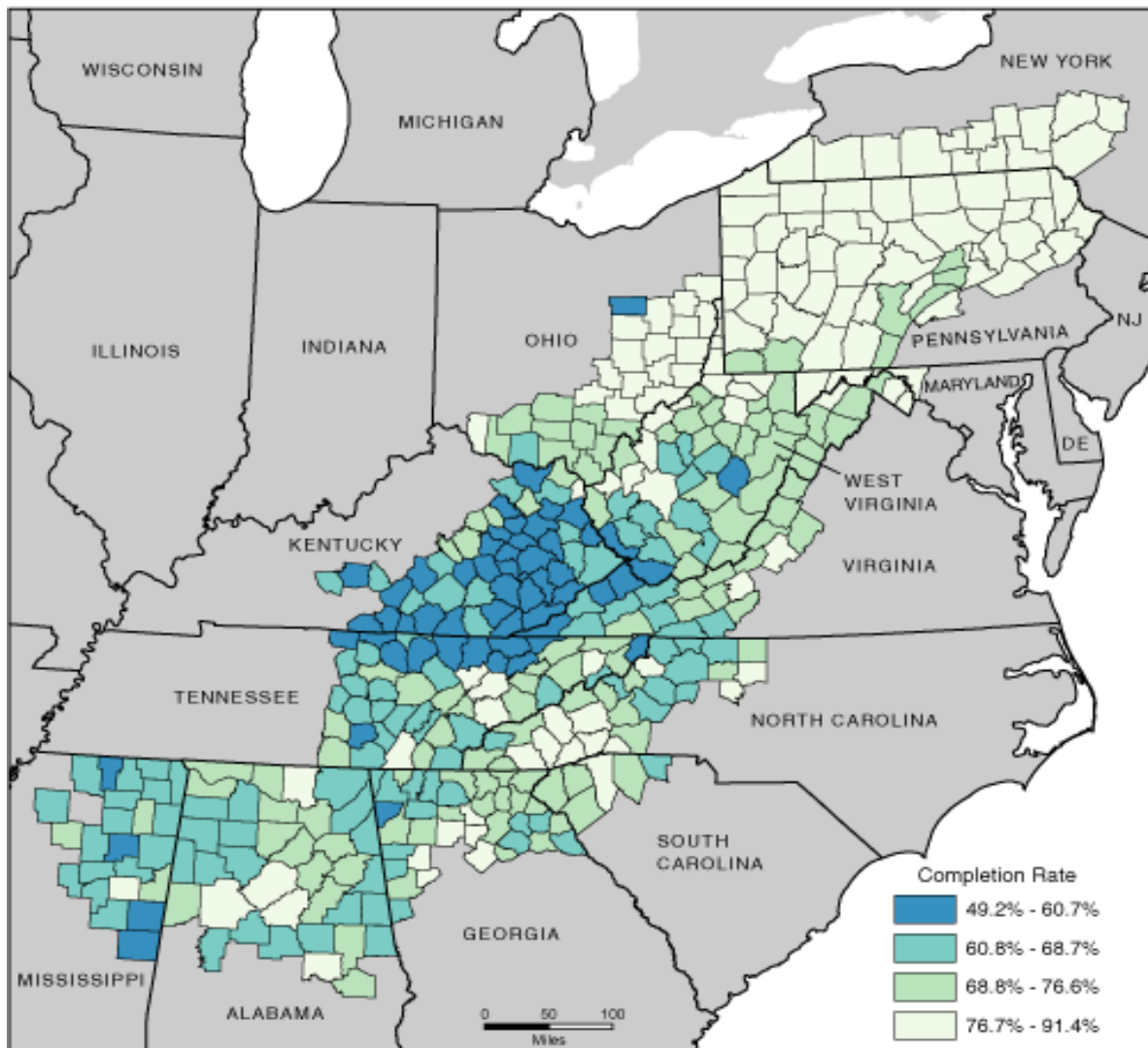
Population Density Rates in Appalachia, 2000



Map Created: October 2003.
Data Source: U.S. Census Bureau, 2000 Census, SF1.

U.S. average = 79.6
Appalachian average = 114.1

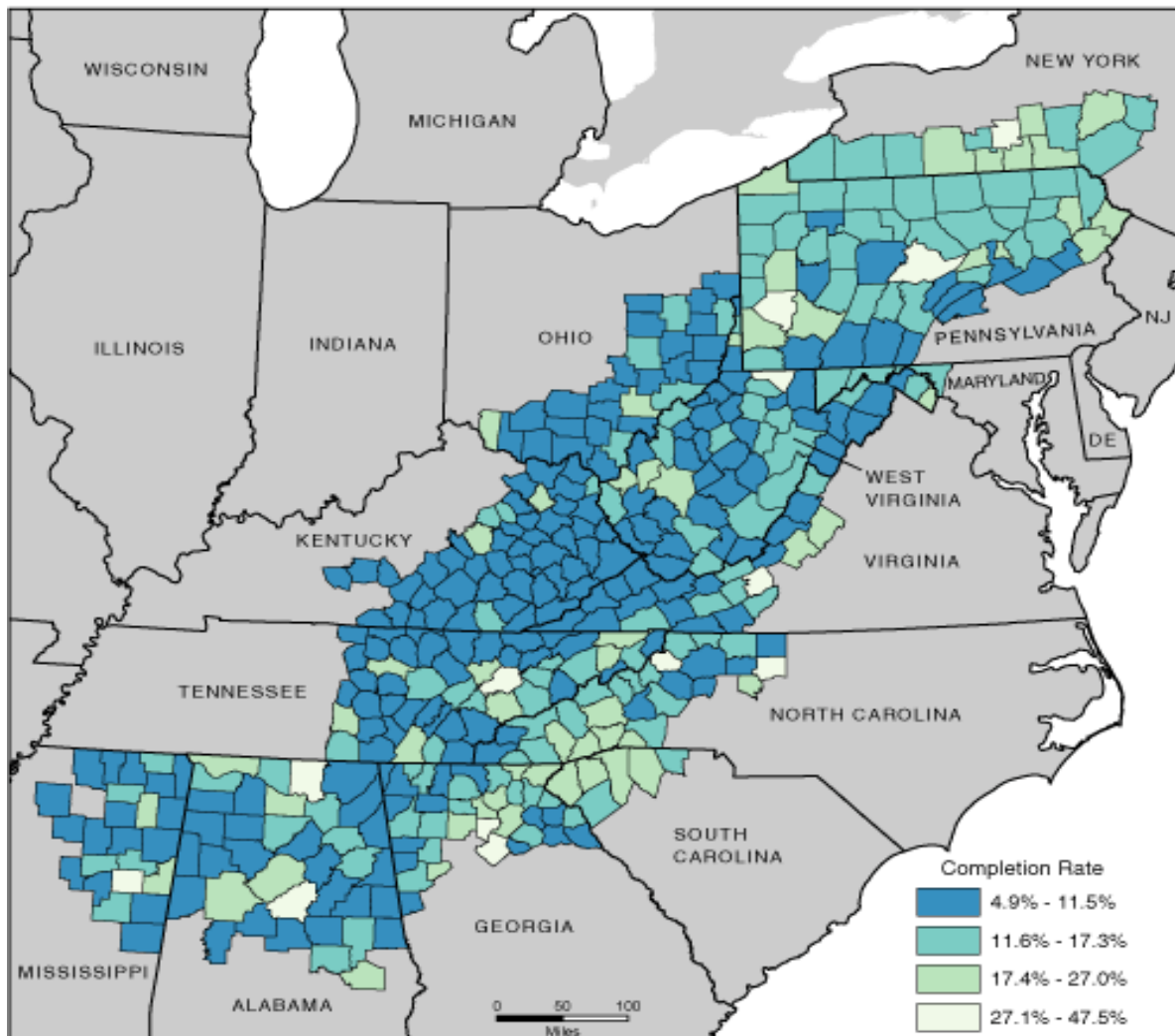
High School Completion Rates in Appalachia, 2000



Map Created: October 2004.
Data Source: U.S. Census Bureau, 2000 Census, SF3.
Data Classification Scheme: Natural Breaks.

U.S. average = 80.4%
Appalachian average = 76.8%

Relative College Completion Rates in Appalachia, 2000



Map Created: October 2004.
Data Source: U.S. Census Bureau, 2000 Census, SF3.
Data Classification Scheme: Natural Breaks.

U.S. average = 24.4%
Appalachian average = 17.7%

APPENDIX C: DEMOGRAPHIC TABLES

Table 18 - Frequency of States Where NBCTs Work

Table 19 - Frequency of Grade Levels Selected as NBCTs' Work Place

Table 20 - Frequency of Years as an Educator Selected by NBCTs

Table 21 - Frequency of Degree Achieved Selected by NBCTs

Table 22 - Frequency of Student Population Selected by NBCTs

Table 18

Frequency of State Where NBCT Work

Appalachian States	Number of Respondents	% of Respondents
Alabama	19	6.67
Georgia	27	9.47
Kentucky	14	4.91
Maryland	1	0.35
Mississippi	14	4.91
New York	1	0.35
North Carolina	105	36.84
Ohio	2	0.70
Pennsylvania	8	2.81
South Carolina	53	18.60
Tennessee	4	1.40
Virginia	8	2.81
West Virginia	29	10.18
Total	285	100.00

Table 19

Frequency of Grade Levels Selected as NBCT's Work Site

Grade Level	Number of Respondents	% of Respondents
Elementary School	146	51.23
Middle School	62	21.75
High School	76	26.67
Non-responses	1	00.35
Total	285	100.00

Table 20

Frequency of Years as an Educator Selected by NBCT

Years as an Educator	Number of Respondents	% of Respondents
5 to 9	29	10.18
10 to 14	59	20.70
15 to 19	73	25.61
20 to 24	48	16.84
25 to 29	34	11.93
30 to 34	28	9.82
35 to 39	8	2.81
40 or More	1	0.35
Non-responses	5	1.75
Total	285	100.00

Table 21

Frequency of Degree Achieved Selected by NBCT

Highest Degree	Number of Respondents	% of Respondents
Bachelors (BA or BS)	40	14.04
Masters (MA)	198	69.47
Education Specialist (EdS)	38	13.33
Doctorate (PhD or EdD)	8	2.81
Non-responses	1	00.35
Total	285	100.00

Table 22

Frequency of Student Population Selected by NBCT

Population	Number of Respondents	% of Respondents
Less than 5,000	72	25.26
5,001 to 10,000	71	24.91
10,001 to 15,000	34	11.93
15,001 to 20,000	14	4.91
20,001 to 25,000	6	2.11
More than 25,000	37	12.98
Non-responses	51	17.89
Total	285	100.00

APPENDIX D: KRUSKAL-WALLIS TEST RESULTS

Table 23 - Kruskal-Wallis Analysis of Teacher Perceptions Based upon States in Which they Work

Table 24 - Kruskal-Wallis Analysis of Teacher Perceptions Based upon Subregion in Appalachia

Table 25 - Kruskal-Wallis Analysis of Teacher Perceptions Based upon Daily Work Place

Table 26 - Kruskal-Wallis Analysis of Teacher Perceptions Based upon Years as an Educator

Table 27 - Kruskal-Wallis Analysis of Teacher Perceptions Based upon Highest Degree Achieved

Table 28 - Kruskal-Wallis Analysis of Teacher Perceptions Based upon Student Population

Table 23

*Kruskal-Wallis Analysis of Teacher Perceptions Based upon
State in which they Taught: Alabama (AL) – North Carolina (NC)*

	AL	GA	KY	MD	MS	NY	NC	p*
Professional development activities ...	Mean Rank							
10. have improved and increased my knowledge of the academic subjects I teach.	178.55	147.60	139.11	74.50	124.54	74.50	151.83	.022
11. are an integral part of broad schoolwide educational improvement plans.	154.37	164.23	166.79	144.50	129.62	13.00	142.49	.415
12. are an integral part of broad districtwide educational improvement plans.	150.11	162.58	158.29	156.00	151.64	63.00	137.49	.702
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	156.34	161.87	164.79	78.00	134.07	78.00	135.75	.254
14. have afforded me the opportunity to improve my classroom management skills.	175.76	142.10	137.61	116.50	145.43	33.50	137.41	.350
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	161.13	153.42	150.93	99.50	126.21	99.50	126.21	.016
16. are one-day or short-term workshops or conferences.	136.13	121.96	141.89	152.50	145.00	12.00	129.65	.032
17. support the recruiting, hiring, and training of highly qualified teachers.	165.88	149.32	124.46	134.00	131.07	56.50	138.73	.071

	AL	GA	KY	MD	MS	NY	NC	p*
Professional development activities ...	Mean Rank							
18. advance teacher understanding of effective instructional strategies	148.95	161.26	156.96	13.00	122.54	62.50	136.30	.150
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	155.58	162.92	146.21	56.50	132.64	56.50	139.03	.144
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	140.83	154.96	163.29	134.00	114.14	42.00	140.88	.510
21. are developed with extensive participation of teachers.	146.37	140.70	142.14	7.50	153.71	43.50	145.55	.645
22. provide training for teachers in the use of technology.	150.29	146.08	126.25	199.50	134.21	88.00	139.42	.341
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	132.53	136.86	167.21	53.50	148.50	53.50	149.25	.079
24. provide instruction in methods of teaching children with special needs.	126.32	150.42	158.36	145.50	137.11	145.5	144.20	.506
25. provide instruction in methods of teaching children with limited English proficiency.	160.34	138.68	66.08	19.00	128.07	88.00	166.75	.000
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	153.66	152.60	171.43	203.00	143.29	203.0	130.38	.755
27. include instruction in ways that teachers may work more effectively with parents.	147.79	133.44	142.43	14.00	164.43	72.00	145.03	.596

Table 23 (continued)

*Kruskal-Wallis Analysis of Teacher Perceptions Based upon
State in which they Taught: Ohio (OH) – West Virginia (WV)*

	OH	PA	SC	TN	VA	WV	p*
Professional development activities ...	Mean Rank						
10. have improved and increased my knowledge of the academic subjects I teach.	74.50	175.06	134..85	100.50	162.50	96.40	.022
11. are an integral part of broad school wide educational improvement plans.	99.50	141.94	132.70	170.50	141.06	115.84	.415
12. are an integral part of broad district wide educational improvement plans.	109.50	161.29	136.54	155.38	155.69	115.50	.702
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	78.00	205.07	140.51	105.62	125.25	125.77	.254
14. have afforded me the opportunity to improve my classroom management skills.	33.50	188.50	135.45	146.00	136.50	140.79	.350
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	21.50	153.50	148.08	80.00	119.75	92.68	.016
16. are one-day or short-term workshops or conferences.	202.00	194.93	172.08	117.38	139.62	127.61	.032
17. support the recruiting, hiring, and training of highly qualified teachers.	56.50	169.81	144.66	141.25	100.79	91.90	.071

	OH	PA	SC	TN	VA	WV	p*
Professional development activities ...	Mean Rank						
18. advance teacher understanding of effective instructional strategies	62.50	175.07	148.81	148.62	113.88	112.71	.150
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	56.50	177.07	144.29	134.25	139.75	103.71	.144
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	134.00	162.50	143.75	90.75	99.50	128.54	.510
21. are developed with extensive participation of teachers.	84.00	137.00	143.74	104.25	134.50	119.46	.645
22. provide training for teachers in the use of technology.	88.00	149.50	157.94	54.00	135.25	120.55	.341
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	30.25	147.19	142.84	111.00	92.06	104.89	.079
24. provide instruction in methods of teaching children with special needs.	142.75	193.25	135.70	118.88	118.88	112.07	.506
25. provide instruction in methods of teaching children with limited English proficiency.	103.00	116.50	149.65	154.50	91.75	73.61	.000
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	149.25	157.44	142.02	131.38	117.94	131.14	.755
27. include instruction in ways that teachers may work more effectively with parents.	96.00	133.50	143.65	98.50	104.50	129.86	.596

Table 24

Kruskal-Wallis Analysis of Teacher Perceptions Based upon Subregion in Appalachia

	North	Central	South	p*
Professional development activities ...	Mean Rank			
10. have improved and increased my knowledge of the academic subjects I teach.	109.61	141.73	147.27	.016
11. are an integral part of broad school wide educational improvement plans.	118.39	165.30	143.39	.076
12. are an integral part of broad district wide educational improvement plans.	123.10	158.13	142.94	.226
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	135.10	166.37	140.34	.382
14. have afforded me the opportunity to improve my classroom management skills.	140.47	142.90	140.96	.994
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	100.29	147.50	146.97	.002
16. are one-day or short-term workshops or conferences.	141.18	135.87	140.69	.969
17. support the recruiting, hiring, and training of highly qualified teachers.	106.62	119.61	142.15	.020
18. advance teacher understanding of effective instructional strategies	117.49	157.47	141.52	.113
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	112.04	140.23	144.23	.044
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	133.58	161.33	139.09	.468
21. are developed with extensive participation of teachers.	116.50	135.57	144.49	.105
22. provide training for teachers in the use of technology.	125.88	123.70	143.61	.267
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	107.10	164.87	142.23	.013
24. provide instruction in methods of teaching children with special needs.	132.01	157.50	139.60	.532
25. provide instruction in methods of teaching children with limited English proficiency.	82.65	67.64	154.14	.000

	North	Central	South	p*
Professional development activities ...	Mean Rank			
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	140.90	166.37	138.07	.374
27. include instruction in ways that teachers may work more effectively with parents.	124.55	144.80	142.44	.375
28. Since the passage of NCLB's accountability requirements, my school district is providing ...	126.70	120.96	141.73	.333

*Significance attained at $p < .05$

Table 25

Kruskal-Wallis Analysis of Teacher Perceptions Based upon Daily Work Place

	Elementary School	Middle School	High School	p*
Professional development activities ...	Mean Rank			
10. have improved and increased my knowledge of the academic subjects I teach.	155.50	133.49	119.08	.003
11. are an integral part of broad school wide educational improvement plans.	155.05	127.36	122.82	.004
12. are an integral part of broad district wide educational improvement plans.	154.23	124.98	126.02	.008
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	151.16	133.87	124.71	.038
14. have afforded me the opportunity to improve my classroom management skills.	144.91	145.60	127.66	.239
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	147.40	135.96	128.68	.203
16. are one-day or short-term workshops or conferences.	146.95	132.41	132.54	.270
17. support the recruiting, hiring, and training of highly qualified teachers.	143.33	133.08	121.76	.143
18. advance teacher understanding of effective instructional strategies				
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	153.01	128.52	119.52	.003
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	155.16	128.88	114.88	.000
21. are developed with extensive participation of teachers.	153.30	122.25	126.27	.007
22. provide training for teachers in the use of technology.	149.66	137.45	121.01	.028

	Elementary School	Middle School	High School	p*
Professional development activities ...	Mean Rank			
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	147.67	128.72	126.29	.090
24. provide instruction in methods of teaching children with special needs.	140.41	142.41	133.42	.746
25. provide instruction in methods of teaching children with limited English proficiency.	147.06	143.35	119.52	.037
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	156.70	127.01	115.61	.000
27. include instruction in ways that teachers may work more effectively with parents.	149.80	129.62	127.17	.058
28. Since the passage of NCLB's accountability requirements, my school district is providing ...	151.28	126.46	120.47	.007

*Significance attained at $p < .05$

Table 26

Kruskal-Wallis Analysis of Teacher Perceptions Based upon Years as an Educator

	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	p*
Professional development activities ...	Mean Rank							
10. have improved and increased my knowledge of the academic subjects I teach.	127.50	133.99	127.18	157.38	144.72	155.80	144.12	.198
11. are an integral part of broad schoolwide educational improvement plans.	127.66	119.41	143.16	138.25	153.85	164.39	139.38	.104
12. are an integral part of broad districtwide educational improvement plans.	139.52	130.15	134.67	132.20	152.99	161.02	141.81	.368
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	117.55	136.01	134.19	156.97	143.26	145.32	131.00	.264
14. have afforded me the opportunity to improve my classroom management skills.	137.67	134.26	127.39	154.23	151.60	136.00	142.50	.432
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	119.00	133.05	129.43	161.76	139.06	148.95	145.88	.134
16. are one-day or short-term workshops or conferences.	135.47	136.29	142.40	125.68	147.09	132.86	160.62	.628
17. support the recruiting, hiring, and training of highly qualified teachers.	133.57	142.33	136.73	129.78	140.11	111.19	131.86	.815

	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	p [*]
Professional development activities ...	Mean Rank							
18. advance teacher understanding of effective instructional strategies	127.26	125.59	129.69	151.40	157.69	145.57	112.00	.235
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	125.28	125.77	131.87	153.61	149.64	148.33	124.44	.326
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	146.64	138.40	132.97	137.56	147.21	135.98	173.50	.034
21. are developed with extensive participation of teachers.	135.29	134.55	124.72	140.55	151.73	145.52	187.69	.273
22. provide training for teachers in the use of technology.	142.10	132.52	127.83	153.72	144.98	133.39	142.50	.437
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	139.31	142.93	117.50	147.35	148.65	132.67	141.00	.339
24. provide instruction in methods of teaching children with special needs.	117.48	133.23	140.32	151.66	133.70	125.13	182.19	.204
25. provide instruction in methods of teaching children with limited English proficiency.	124.62	133.60	137.75	152.94	130.33	137.50	138.06	.806
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	119.69	128.39	132.71	148.18	156.83	144.67	146.81	.455
27. include instruction in ways that teachers may work more effectively with parents.	118.53	135.44	134.16	148.38	153.52	125.33	168.63	.371

Table 27

Kruskal-Wallis Analysis of Teacher Perceptions Based upon Highest Degree Attained

	BA/BS	MA	EdS	EdD/PhD	p*
Mean Rank					
8. I consider my knowledge of the NCLB law/requirement related to professional development to be ...	116.85	142.56	149.24	198.94	.033
9. NCLB includes a 1 ½ page definition of professional development. I have ...	116.35	140.58	163.71	220.00	.001
Professional development activities ...					
10. have improved and increased my knowledge of the academic subjects I teach.	139.99	137.31	164.31	128.75	.254
11. are an integral part of broad schoolwide educational improvement plans.	129.35	136.92	170.28	146.00	.076
12. are an integral part of broad districtwide educational improvement plans.	125.19	138.18	167.19	148.50	.100
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	120.97	141.38	152.73	157.50	.263
14. have afforded me the opportunity to improve my classroom management skills.	146.45	138.04	146.57	143.62	.876
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	136.18	135.89	162.82	153.31	.232
16. are one-day or short-term workshops or conferences.	148.40	141.54	133.50	91.62	.239

	BA/BS	MA	EdS	EdD/PhD	p*
	Mean Rank				
17. support the recruiting, hiring, and training of highly qualified teachers.	155.86	126.74	155.24	152.31	.042
18. advance teacher understanding of effective instructional strategies that are based on scientifically based research.	127.93	133.34	170.50	165.25	.024
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	128.04	135.30	166.15	155.31	.082
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	134.28	135.30	156.80	168.94	.264
21. are developed with extensive participation of teachers.	149.76	135.30	151.82	136.12	.528
22. provide training for teachers in the use of technology.	140.03	133.45	160.22	188.75	.056
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	147.03	131.97	148.70	190.44	.105
24. provide instruction in methods of teaching children with special needs.	127.34	131.97	148.70	190.44	.242
25. provide instruction in methods of teaching children with limited English proficiency.	144.53	134.10	149.82	181.56	.236
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	124.62	137.57	159.55	164.44	.166
27. include instruction in ways that teachers may work more effectively with parents.	145.59	135.43	145.27	183.00	.296

*Significance attained at $p < .05$

Table 28

*Kruskal-Wallis Analysis of Teacher Perceptions Based upon
the Student Population of their Local School District*

	< 5,000	Up to 10,000	Up to 15,000	Up to 20,000	Up to 25,000	> 25,000	p*
Professional development activities ...	Mean Rank						
10. have improved and increased my knowledge of the academic subjects I teach.	120.05	117.34	96.12	113.93	123.00	126.76	.437
11. are an integral part of broad schoolwide educational improvement plans.	109.26	122.86	117.14	92.82	117.00	120.27	.595
12. are an integral part of broad districtwide educational improvement plans.	108.33	122.17	117.65	88.29	138.17	121.50	.369
13. give educators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards.	114.68	117.06	107.11	125.43	149.33	112.26	.721
14. have afforded me the opportunity to improve my classroom management skills.	116.46	120.65	112.68	117.50	125.25	103.89	.859
15. are high-quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.	110.38	114.57	113.29	117.64	143.92	123.86	.788
16. are one-day or short- term workshops or conferences.	116.32	125.23	113.85	109.86	132.25	92.04	.183
17. support the recruiting, hiring, and training of highly qualified teachers.	106.11	117.81	115.03	119.65	96.33	115.69	.865

	< 5,000	Up to 10,000	Up to 15,000	Up to 20,000	Up to 25,000	> 25,000	p*
Professional development activities ...	Mean Rank						
18. advance teacher understanding of effective instructional strategies	107.75	111.94	118.89	104.93	128.50	124.00	.766
19. include strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers.	109.47	120.76	105.86	112.79	137.25	113.49	.744
20. are aligned with and directly related to state academic content standards, student academic achievement standards, and assessments.	108.72	112.14	117.22	139.35	148.25	110.17	.428
21. are developed with extensive participation of teachers.	107.96	119.01	110.44	122.00	121.50	117.97	.899
22. provide training for teachers in the use of technology.	110.43	122.18	106.78	113.29	122.25	113.53	.843
23. are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement.	110.81	113.87	108.62	130.14	105.67	120.33	.880
24. provide instruction in methods of teaching children with special needs.	112.17	126.47	101.08	125.89	130.17	100.64	.219
25. provide instruction in methods of teaching children with limited English proficiency.	91.17	128.30	113.48	136.86	88.17	125.83	.004
26. include instruction in the use of data and assessments to inform and instruct classroom practice.	117.63	124.91	90.06	106.57	132.50	109.97	.150
27. include instruction in ways that teachers may work more effectively with parents.	111.69	121.30	103.22	107.61	119.08	118.68	.788

APPENDIX E: RESPONSES TO ITEM 32 ON THE BPD

What are your personal experiences with NCLB and its influence on professional development?

The National Board Certified Teachers working in the Appalachia Region shared the following thoughts on their personal experiences with NCLB and its influence on professional development:

- (AL) – It has flaws, but it has moved the focus where it needs to be: improved student data.
- (AL) – NCLB has caused me to personally reflect on my actions for teaching ALL students.
- (AL) – Professional development has been targeted to increasing scores by taking a closer look at teaching only standards on the test used to evaluate student/school performance. Uniformity in teaching seems sometimes to be what higher ups are desiring.
- (AL) – I feel that NCLB has had little effect on the teaching in my district and is an ineffective program.
- (AL) – Professional development, since NCLB, has seemed to move from “how to teach students” to “how to teach the test.” We are getting further away from teaching a love of learning in order to focus on filling in bubbles correctly.
- (GA) – Personally, I don’t think NCLB affects me directly, with the exception of increases testing requirements. The positive affects of increased teacher training is more indirect, but I have seen improvements in the past few years. I don’t know that it has translated into improved student performance as of yet.
- (GA) – I feel that our county was already providing opportunities for professional development. Our biggest issue is the lack of funds for technology. We have one SmartBoard and one computer lab for 750 students.
- (GA) – I have found that lots of materials, data, content application, modifications, differentiation, etc. is redundant. Accomplished teachers have, for the most part, learned and have been teaching in this mode as a standard. Should professional development not be “differentiated” for educators, too, to provide more success in meeting specific skills needed in their teaching?
- (GA) – Due to the requirements of NCLB, I have had to take classes on improving student achievement, teaching strategies, and technology.
- (GA) – _____ County Schools are involved in a program called Working on the Work (WOW). We have been provided opportunities to attend conferences in other states. WOW is “an action plan for teachers, principals, and superintendents” (Phillip C. Schlechty).
- (GA) – Funding is frozen now for professional development.
- (GA) – I am deeply concerned over the NCLB teaching “a test” all year which is what is basically asked of us. I quote ... “let the test drive your instruction.” This is so wrong in so many ways. I hope to see a change in the standardized testing status. We must hold teachers accountable, students, and parents as well.

- (KY) – NCLB is encouraging teachers to evaluate and improve lesson plans to prepare students for the real world!
- (KY) – Prior to NCLB, our school/district were providing extensive professional development based on national and state standards.
- (KY) – NCLB requirements haven't significantly changed the quantity and quality of professional development in my state. Prior to NCLB legislation, our state had rewritten legislation including high stakes assessment and school accountability.
- (KY) – We have an on-going professional learning community that existed before NCLB. I do not know how our academic leaders have been affected by NCLB, or if our PD has been affected by NCLB.
- (MS) – Our professional development has always been pertinent to the standards and curriculum and very high quality. It continues to be so.
- (MS) – Because of NCLB, our schools district participates in the Reading First program.
- (MS) – I have nothing useful to add.
- (NC) – In the beginning educators were more focused and deliberate in what we chose as professional development opportunities. We had a choice per say. Then we were forced to take workshops/seminars in areas we had no interest. It was a given we were required to take these classes. For example, when I taught kindergarten I had to do extensive data analysis on assessments and content standards! Now that money is scarce our professional development is limited if not non-existent, other than what our administration organizes on site. As usual, things begin with good intentions, however, as time goes by we lose focus and the main goal of NCLB has changed directions and our focus is no longer on children!
- (NC) – Without additional funding NCLB is an unrealistic ambition that is hindering the growth, development and emotional well being of the average and above average student. Staff development has been appropriate and has helped improve my teaching strategies. But there is so much focus on the underachieving child that the other student are being neglected!
- (NC) – In my school district the nature of professional development, the quality and quantity seem about the same as in years past. I've never heard a workshop presenter or administrator say "we're doing this because of NCLB." The emphasis the last two years has been for PLCs within grade levels at each school and among special area teachers at different schools. You mentioned "support and assistance given to teachers since th passage of NCLB" – I don't feel supported or assisted – I only feel like more requirements are piled on to teachers. The exception is technology. ____ County Schools is pushing hard to get us SmartBoards, document cameras, etc. It's wonderful! I don't know if that links to NCLB.

- (NC) – I believe that NCLB has been a great disservice to our ESL and EC students. Students are expected to perform at the same level even with disabilities and lower socio-economic levels. Tests are written for mid-level socio-economic, Anglo-Saxon students.
- (NC) – I personally feel that much of the required training is having the opposite of the desired effect; teachers are being asked to do more and more with fewer resources. Example: A required 30 hour online writing assessment requirement with no additional pay or leave time for 4th grade teachers. No wonder we can't attract quality people ...
- (NC) – NCLB has had less of an effect on my professional development and more impact on my instructional practices. What I have decided as a professional, to pursue my doctorate, has been impacted more as I see the need to have people in places of authority who understand children and the educational process as a whole.
- (NC) – The act has had a positive effect on the quality of professional development available. There is a greater emphasis on research-based interventions and quality data concerning assessments.
- (NC) – Our county tries very hard to offer exceptional professional development. I have gained knowledge even though I am a veteran of 34 years.
- (NC) – NCLB is causing too much stress.
- (NC) – I believe that we have always had opportunities with quality professional development, so I do not feel that NCLB influenced that greatly. I think it did extend the requirements for teachers to be highly qualified in their teaching area.
- (NC) – With North Carolina having its own strict accountability model in place, I think NCLB was overkill.
- (NC) – In my district, staff development seems too broad, sort of a “one size fits all” approach. Not all skills and strategies work for all grade levels or subject areas and very little differentiation is done. For beginning teachers, this must be confusing and may be a factor in curriculum ‘push down’. Teachers who move from upper grades to lower grades may not understand the needs of early learners.
- (NC) – I work in a district that has always taken education and professional development very seriously. It is hard to say if NCLB has really had an effect on the quality of education in our county.
- (NC) – I feel we are told we are getting training for ‘out of the box’ teaching and learning, but really we are just being placed in a different box. This stat is OBSESSED with test scores rather than improving students’ abilities to think critically. Data analysis is only based on test scores, not classroom achievement or student surveys.

- (NC) – Professional development has been dramatically cut because of lack of funding.
- (NC) – Our district has had ongoing staff development since before the NCLB mandates.
- (NC) – My county has spent a lot of money on Learning Focused Strategies. I'm not sure it is worth its cost, but I think it hasn't hurt. Teachers in my county resent and question the instructional coach positions. We feel another classroom teacher might be a better use of the money.
- (NC) – NCLB influence in my school/district has produced required, extra paper work for administration which sends required ineffective paper work/data/classroom practices that "teach testing skills" not meaningful objectives to students. Neither has been effective in showing student growth consistently. My biggest concern is the significant change in student processing skills. How they are unable to independently process and use information independently and use the skill across various situations. Data driven education and testing accountability from NCLB has seriously affected the natural learning process.
- (NC) – The intent of NCLB 'staff development' section is good, plausible, and well thought out; however, one size does not fit all. What I see is LEAs have mandated certain staff development for everyone even though schools are demographically different, especially in terms of needs. I have seen teachers balk at this 'wholesale' staff development because of a perceived lack of relevance. I know of no teacher input in the decision-making processes.
- (NC) – I know that NCLB requires professional development to be research based. Unfortunately, much of it is "fluff."
- (NC) – I think, due to NCLB, our focus has switched from student thinking, learning, discourse and deep understanding to memorizing and skill/drill to pass the tests. "Teacher accountability" now is equal to good test scores. We've lost foreign language, drama, and dance classes in our school with NO time or NO money to be creative.
- (NC) – I teach special education. I do not feel NCLB works for my population. The areas of testing appropriate to student needs – specifically alternate testing on ability levels per course of study – There are not enough opportunities to train for alternate testing criteria.
- (NC) – In my experience since NCLB legislation went into effect there has been much pressure placed on teachers to have great improvement in test scores. The professional development that has been provided has mostly focused on increasing content-area knowledge while providing some strategies. We are still lacking quality training that target reaching the students who are close to performing at grade level, but not quite making it. It seems that each teacher is

- (NC) – Our school system has always provided quality staff development. Recent staff development has been provided system-wide so that our teachers all understand the same strategies for teaching and speak the same language of strategies. I do not know if NCLB has anything to do with the recent and excellent staff development provided by _____ County.
- (NC) – Professional development will happen regardless of NCLB!
- (NC) – Professional development in my school system is much more strategically aligned with the needs of students in our county as determined by standardized tests in grades 3-12 and portfolio assessments in grades K-2.
- (OH) – I believe that NCLB is ineffective in its present state for professional development. The National Board Certification is much more beneficial as a professional development tool.
- (PA) – I am an art teacher. NCLB has given me less time with my students. I teach K-5. The talents that my students are given the opportunity to grow are not recognized or “tested” but contribute heavily to real life situations!
- (PA) – I agree that professional development is important to improving the quality of teaching, which leads to an increase in student learning. However, no matter what type of professional development opportunities are provided, they still have to be implemented by the teachers. It is also important for school districts to evaluate what areas of weakness are common among teachers, so they can provide professional development in those areas. Or, it would be effective if districts would provide several options for professional development so we can focus individually on what we need to improve upon.
- (PA) – My school has consistently met its AYP goals. Not all of the schools in my district have. While lobbying for NBPTS on Capital Hill last July, many congress members I met with (10 in all) were unsure of NCLB’s future. As politicians, they could not explain its value. It was a great initiative that was negatively perceived and has died a slow, painful death. Good riddance ...
- (PA) – Prior to NCLB, our professional development centered on best practice methods of instruction and assessment. Since NCLB, our professional development has primarily shifted to focus on increasing test scores, although we have recently added a large emphasis on literacy, so that at least does benefit the students.
- (PA) – I wish NCLB was “as gone” as Bush; it’s about as effective as he was.
- (SC) – NCLB law doesn’t provide help for the communities or families. Though professional development is done without adequate planning time/free from

students during the day. Most teachers do not have enough time to reflect on the new practices learned.

- (SC) – As a literacy coach in a Reading First school, I feel that the focus on embedded, ongoing professional development has and will continue to improve teaching and increase student learning. It takes time and money to bring about lasting change in schools.
- (SC) – My district has always been strong in the area of professional development so I'm not sure that NCLB has had a tremendous impact; however, for other districts it has forced more professional development. With our state's budget cuts the quality of professional development will be weakened. I think there will be more in-house professional development just to document the requirement.
- (SC) – Our district and school already offered significant opportunities for professional development. Before NCLB, we seemed to have more classes offered for college credit now have shorter classes held more often.
- (SC) – I think NCLB does not take into consideration of a child's home life. We can't improve learning until we have everyone involved – educators, parents, law makers, etc. I think this is just a way to point the finger at education as to why our educational system doesn't work!
- (SC) – NCLB ... No Teacher Left Standing! Too many hours out of the classroom takes away from planning opportunities to create innovation lessons for students.
- (SC) – Our district has always had significant professional development and sought continuous improvement regardless of NCLB.
- (SC) – We have had more "focus" at the district level – i.e. we, as a district, focused on Ruby Payne and Poverty. Two years later we focused on rigor and relevance. We have also incorporated more ½ days. It is hard to tell if this is related to NCLB because it isn't stated. We also have an SLC grant so we have worked a lot with teaming. However, I'm not sure that would be connected to NCLB.
- (SC) – Our district places more emphasis on meeting state standards than NCLB.
- (SC) – Conferences are much more valuable than any district level in-service program. District level training is usually mediocre at best.
- (SC) – I have heard of this but never is there a reference for NCLB to influence professional development this much. We have been Title I and I think most of our training was a result of this.
- (SC) – I'm not sure that NCLB is realistic with its expectations – especially now. Our budgets are stretched. Our salaries are lower. Our classes are larger.

- (SC) – I believe that NCLB, while good-intentioned, places demands on teachers that make them feel the overall goal is unattainable which adds more stress and less motivation.
- (SC) – I am constantly reminded that all students need to be proficient per NCLB. Unfortunately, not all students are able to learn at the same rate and have the same home support. As always, the pressure and responsibility are on the teacher.
- (TN) – Reading First sponsored professional development has been exceptional and applicable to the needs of students and teachers today. Unfortunately, most professional development is based on subjective information rather than scientific findings. Teachers graduating today have not been provided with the knowledge of how to teach reading. Many of them do not have even a basic understanding of the mechanics and workings of the English language. It is my belief that our colleges and universities must do a better job of preparing future teachers. I believe teachers need to understand how children learn to read and why some children have difficulty with reading. They need to know what must be taught during reading and how to teach most effectively. They should understand why all components of reading instruction are necessary and how they are related; how to interpret individual differences and how to explain the form and structure of English. A thorough understanding of these principles would give teachers a solid foundation in reading to begin their teaching careers.
- (VA) – I have mixed feelings about NCLB and its influence on quality of teaching and student learning. I know that there is less creativity in the classroom and more practice testing for success on standardized test. Perhaps there is more quantity of curriculum covered, but I'm not sold on the quality. Honestly, I do not discern that NCLB has changed our professional development.
- (VA) – Five years ago my school was accredited with a warning. The county replaced the principal and added a reading specialist (me). Both of us understood the expectations of the state and outline professional development that would benefit our teachers/students. We have used all of the methods described in item #31. Our test scores gradually began rising. Last year our scores earned us the Governor's Award of Excellence – given for outstanding achievement – not progress. I think our school's emphasis on professional development as opposed to money spent on packaged programs (even research-based programs) has had a huge impact on our students' achievement in all content areas.
- (WV) – Nothing has changed! Still the same boring professional development that usually has nothing that helps me; or if it does, follow-up (materials, etc.) never gets to the teachers. Teachers have NO input!! Those who don't know what we do, decide – typical!!

- (WV) – My present position is a direct result of NCLB and its influence on professional development. As the curriculum facilitator at my school, one of my responsibilities is to plan, develop, and deliver job-embedded professional development to the teachers and administrators in our school.
- (WV) – The language of the law provides for opportunities for discernable improvement in professional development; however, my school district is oblivious as to how to improve the efficiency of professional development programs.
- (WV) – Professional development is more focused and the presents are more accountable. My county did a good job on professional development before NCLB. They seem to be getting better at providing options – scaffold PD.
- (WV) – Accountability is the keystone!
- (WV) – I've had extensive training in best practices, backward design, 21st century teaching and learning, and technology training. This is ongoing in my district.
- (WV) – My county has bought a program for professional development that fosters "learning communities." I find it ineffective, not related directly to what I need, and, generally, a waste of time.
- (WV) – I did not even realize that NCLB had anything to do with staff development.
- (WV) – I believe that reading, math, and special education receive more attention than other subjects since the passage of NCLB. Science and social studies are no longer stressed as they once were.
- (WV) – Need funding support to allow participation in meaningful staff development.
- (WV) – Special educators are least likely to meet "highly-qualified" status therefore forced to teach in more than one area. This has a tremendously negative effect especially in science! _____ County does an excellent job but this is solely caused by NCLB.
- (WV) – I believe two experiences are worthy of credit from my professional development. One is a vertical teaming between middle and high school language and math teachers; we've met four times yearly for the past two years. The other was training at my school on depth of knowledge in teaching and learning. However, it should have been two day training and didn't even receive a full 2 hours.
- (WV) – As a secondary teacher, I have limited knowledge/information on NCLB. I wish I had more information provided by my school system. In my county, elementary teachers are very aware of the process. Secondary teachers are kept in the dark unless we read about it ourselves.

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