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How States are Meeting the Highly Qualified Teacher Component of NCLB

Jean Pinney
University of New Orleans

HOW STATES ARE MEETING THE HIGHLY QUALIFIED TEACHER COMPONENT OF NCLB

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Jean Pinney

B.A. Stetson University, 1973

M.Ed University of Houston , 1977

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ABSTRACT

As part of the reauthorization of the Elementary and Secondary Education Act the federal government has added the requirement that all schools receiving Title I funds must have "highly qualified teachers" in every classroom. The term "highly qualified teacher" comes from the *No Child Left Behind Act of 2001.* What exactly is a "highly qualified" teacher? This part of the law is widely debated throughout the fifty states, but most agree that a teacher's subject-matter knowledge and experience result in increased student achievement.(Ansell& McCase, 2003)

Some states have made progress in meeting the "highly qualified" requirement of NCLB. However, most states have merely established the criteria for determining if a teacher is highly qualified (Keller, 2003). The Education Trust has called for clarification from the Department of Education on the guidelines for the teacher quality provision of the law. Ten states have put into law all the requirements of the federal law, 22 have done some work toward that goal, and 18 states still have a long way to go (Keller) .

With so many states still grappling with compliance to the law, this study may well give policy makers in those states options that are being used in other states to consider. In addition, the study focuses on middle school and the possible impact these requirements will have on staffing of middle schools. Policy makers would do well to look at this aspect closely since middle school is often where education "loses" many students to dropping out. Also, the middle school is where the greatest number of non-certified teachers work and where the greatest percentage (44%) of teachers are teaching without even a minor in the subject they teach (Ingersoll, 2002).

CHAPTER ONE
INTRODUCTION

As part of the reauthorization of the Elementary and Secondary Education Act (2001) the federal government added the requirement that all schools receiving Title I funds must have "highly qualified teachers" in every classroom. The term "highly qualified teacher" comes from the *No Child Left Behind Act of 2001.* What exactly is a "highly qualified" teacher? This part of the law is widely debated throughout the 50 states but most agree that a teacher's subject-matter knowledge and experience result in increased student achievement (Ansell & McCase, 2003). The *No Child Left Behind Act* (2001) requires all teachers in core academic subjects be highly qualified by the end of the 2005-2006 school year. As part of the law, Congress has defined highly qualified as those possessing state certification and having solid content knowledge of the subjects they teach. The content knowledge can be demonstrated by passing subject-matter tests, having the equivalent of an undergraduate major in the field, or, for "not new" teachers, meeting the High Objective Uniform State Standard of Evaluation (HOUSSE) by the end of school year 2005-2006. The HOUSSE component is the area where the states have the greatest flexibility.

Louisiana has established the criteria for "not new teachers" to meet the "highly qualified teacher" requirement of *NCLB*. Louisiana requires teachers to have 90 Continuing Learning Units (CLU's) by the end of the 2005-2006 school year. They may count hours earned as far back as January, 2002. The state defines a CLU as a professional development activity that builds capacity for effective, research-based, content-focused teaching and learning that has a positive impact on student achievement. In order to qualify as a CLU in Louisiana the professional development must meet the following criteria:

- Be designed to increase the teacher's content knowledge or instructional practices

- Be aligned with Louisiana Content Standards, Benchmarks, and Grade-Level Expectations, and
- Be classroom focused and linked to the teacher's current job responsibilities

The Louisiana State Board of Elementary and Secondary Education policy states educators may earn one CLU for each clock hour of active engagement in professional development. These CLUs may be face-to-face, online, or through video-conferencing. Only hours actually spent in the activity count so if there is an eight hour workshop with an hour for lunch only seven CLUs count. A three credit hour university course counts as 45 CLUs, and a 12 week online course counts for 45 CLUs, eight weeks is 30 CLUs, four weeks is 15, and a two week course is eight CLUs.

Having made the demand that every classroom have a highly qualified teacher, the federal government stepped back and left it up to the states to determine if a teacher met the criteria for highly qualified. This study reveals the vast range of criteria used by the various states and also highlights some commonalities in the various states' definitions of highly qualified.

Context

According to the National Center for Education Statistics, *Schools and Staffing Survey* (1999-2000), 22% of secondary school students (9-12) in the United States are already taught by teachers without a major or minor in the subject and 37% are taught by teachers without both a major and certification in the subject (Ingersoll, 2002). According to the same source, about 44% of middle school students nationwide take a class with a teacher who hasn't acquired even a minor in the subject taught.

A special analysis of results from the U.S. Department of Education's 1999-2000 *Schools and Staffing Survey* was conducted by Richard M. Ingersoll (2002). The data in the survey were from a large, representative sample of American teachers. For the purpose of the study secondary classes were defined as departmentalized courses in grades 7-12 and middle level grades

included departmentalized classes in grades 5-8, but this group was composed of predominantly 7th and 8th grade classes.

According to the analysis, 24% of secondary classes in core academic classes are taught by teachers lacking even a minor in the subject, and in high poverty schools that rate rose to 34% (Ingersoll, 2002). This statistic was even higher in the middle grades where 44% of middle grade classes in core academic subjects were taught by a teacher who lacked even a college minor in the subject being taught, and in high poverty schools that rose to 53% (Ingersoll, 2002). Further results indicated this problem was particularly severe in mathematics where 70% of middle school math classes in high poverty schools were taught by teachers without even a minor in math. This survey defined a major as at least thirty hours in a subject and a minor as having between 12 and 24 hours in a subject. These hours do not include methodology courses, and majors such as science education do not count. The percentage of out-of-field teachers varies by state but Louisiana ranked first with the highest percentage of teachers in secondary schools teaching out of their field.

Public and private elementary and secondary enrollment is expected to increase 10% by 2006 (Hussar & Gerald, 1996). Of that increase, 5% is expected to occur in grades K-8 and 21% in grades 9-12. As of 2001 there were 1,945,000 elementary teachers and 1,319,000 secondary teachers working in the U.S. By the year 2006, it has been projected the U.S. will need 1,974,000 elementary teachers and 1,369,000 secondary teachers (Hussar & Gerald). This means an increase of 32,000 elementary teachers and 50,000 secondary teachers in the U.S. These figures only hold true if no teachers resign, retire, or move to positions outside of the classroom. Obviously that is not going to happen, so the demand will be even greater. Therefore, a large percentage of students in schools are already being taught by teachers without a major or a minor

in the field and there will be an increase in the need for teachers in 2006. If one adds to this dilemma the requirement that all teachers be highly qualified by 2006 then the question arises as to how states plan to meet this requirement.

Statement of the Problem

The emphasis on "highly qualified teachers" in the *NCLB Act* is an attempt to address teacher quality or effectiveness. According to Rowe (2000), the most important source of variation in student achievement is not gender, socioeconomic status, nor school, but teacher quality. In a three-year study done in Dallas, students with very effective teachers were able to raise their test scores by 16 percentile points in both reading and math while those with ineffective teachers saw their test scores drop by 18 percentile points in reading and 33 in math (Camphire, 2002).

The National Commission on Teaching and America's Future (2003) described quality teachers as those who:

- have a deep understanding of their subject,
- understand how students learn,
- demonstrate the teaching skills needed to help all students achieve high standards,
- create a positive learning environment,
- use a variety of assessment strategies to respond to individual learning needs,
- integrate technology into the curriculum to support student learning,
- reflect on their own practices to improve their teaching and student learning,
- attend professional growth activities in both content and pedagogy, and
- instill a passion for learning in their students.

These are wonderful criteria but how can teacher quality be regulated or defined prior to a teacher actually working in a classroom? One of the requirements common to all states is that teachers be certified to teach. Does this insure teacher effectiveness? In a study by Goldhaber and Brewer (2000), the answer appears to be no. That study concluded that standard certification

and systematic training do not lead to better teaching (Goldhaber & Brewer, 2000). The study was done with a very small sample, only 58 teachers, and thus rather small to support such an inference.

Darling-Hammond, Berry, and Thoreson (2000) found that certification has a stronger influence on student achievement than having a subject matter degree in the field which shows a positive but non-significant influence on student achievement in math and a negative influence in science. The effect size is actually several times larger for education degrees than disciplinary degrees (Darling-Hammond et al.). One of the ways to show subject matter knowledge in *NCLB* is to have a major in the subject taught, but according to this Darling-Hammond study, that does not have nearly as great an impact on student achievement as having an education degree. Just because someone knows the subject does not necessarily mean he or she knows how to teach it. Rudner (1999) found students of certified math teachers did significantly better in general math ($p<.05$) and algebra ($p<.001$) than those taught by non-certified teachers.

If certification matters, then, why isn't that sufficient to guarantee teacher quality? The main problem appears to be that the requirements for certification are made at the state level and these vary across state lines (National Commission on Teaching and America's Future, 2003). The differences in certification requirements are compounded by the fact that the majority of teachers are prepared in approximately 1,300 different colleges and universities across the country which vary in their quality (National Commission on Teaching and America's Future). Becoming accredited by the National Council for Accreditation of Teacher Education (NCATE) is one way teacher preparation programs are trying to insure that their teachers are prepared to enter the teaching force. A study of 270,000 PRAXIS II test takers showed 91% of students graduating from an NCATE accredited program passed the content exams for teacher licensing while only 84% passed if they graduated from a non-accredited program (Educational Testing Service, 1999).

Another problem with certification is a teacher may be trained in one state and then move to a different state to teach only to find that more courses are needed in order to be certified in

that state. From personal experience, I know that in order to be certified in Texas a teacher must take a class in Texas history. In California teachers must take a course in the U.S. Constitution and a fifth year of coursework if they do not have a master's degree. Becoming Nationally Board Certified is one way teachers can avoid this problem and is a step toward a national teacher certification program.

Purpose of the Study

The purpose of this study was to do a comparative analysis of how the different states defined "highly qualified teacher." The study examined all requirements for teacher certification both before and after the requirement for teachers to be highly qualified, and the impact the new requirements are predicted to have on middle schools throughout the United States due to the difficulty in finding enough "highly qualified" middle school teachers. In many states middle school teachers prior to NCLB could hold either an elementary teaching certificate or a secondary certificate, but the new law will require middle school teachers to have more single-subject content knowledge than is required of elementary school teachers and thus may impact the availability of "highly qualified" middle school teachers who meet this new criteria. The results of this study may influence policy makers in the United States as they struggle with how to define "highly qualified teacher" and how they can meet the requirements of the law.

Research Questions

This study was designed to focus on the middle school teacher. Several research questions, indicated below, were involved in the study.

1) What are the differences in certification requirements in each state for a middle school teacher before and after the enactment of *NCLB?*
2) What percentage of middle school teachers in each state are non-certified, or working with a one year certificate, or teaching out of their field, or are teaching on waivers in the middle school?
3) What is the definition of highly qualified teacher in each state?

4) What percentage of the current middle school teachers are certified but not highly qualified, are certified and highly qualified, or are neither highly qualified nor certified?
5) What impact will the "highly qualified" component of NCLB have on middle school staffing?

Significance of the Study

Some states have made progress in meeting the "highly qualified" requirement of *NCLB*. However, most states have merely established the criteria for determining if a teacher is highly qualified (Keller, 2003). The Education Trust has called for clarification from the Department of Education on the guidelines for the teacher quality provision of the law. As of 2003, ten states had put into law all the requirements of the federal law, 22 had done some work toward that goal, and 18 states still had a long way to go (Keller). Wisconsin determined that "highly qualified" means a bachelor's degree, completion of an approved licensing program, and passing an exam in the subject taught (Keller, 2003). Tennessee will meet the standard by saying teachers are "highly qualified" based on improvement in student test scores. These requirements are generally applied to new teachers but states are struggling with how to determine if experienced teachers without a major in their field are "highly qualified." Some states are utilizing the National Board Certification, meeting assessment requirements set up under an individual professional development plan, or service on curriculum committees. More controversial methods are having three satisfactory evaluations or having 21 credit hours in the subject (Keller).

With so many states still grappling with compliance to the law, this study may well give policy makers in those states options to consider that are being used in other states. In addition, the study focuses on middle school and the possible impact these requirements will have on staffing of middle schools. Policy makers would do well to look at this aspect closely since middle school is often where education "loses" the students. Also, the middle school is where the greatest number of non-certified teachers are working and where the greatest percentage (44%) of teachers are teaching without even a minor in the subject they teach (Ingersoll, 2002).

Overview of Methodology

This study was a descriptive study of all 50 states and the District of Columbia and how they are defining "highly qualified teacher" for middle schools. The participants for the study were the certification officers in each state. Every certification office in each state was contacted by the researcher via phone or e-mail prior to the start of the study to explain what was being studied. In January, 2005, a questionnaire, a cover letter reminding them of our previous contact, and a stamped return envelope were sent to each certification office. The letter also included alternate ways to contact the researcher, such as e-mail, FAX, or phone, for clarification or to respond to the questionnaire.

Three weeks following the initial mailings a FAX was sent to those certification officers who had not responded. The FAX consisted of a cover sheet briefly explaining the study again and the original questions with a request for their assistance. A third attempt to contact the certification officers who had not responded was made via e-mail six weeks after the initial mailings. Finally, a phone call was made to the certification officers who still had not responded to gain their co-operation in completing the data collection.

Several charts summarize the data collected. One table was constructed to show the various ways the states determine if a teacher was highly qualified. This table was then analyzed for commonalities and differences. These were then reported in chart form to highlight common themes. Two other tables were constructed showing certification requirements for middle school teachers prior to NCLB and another one showing certification requirements after NCLB. A comparison was made of the two tables and reported in an "index of change" table.

Another chart was constructed indicating the number of teachers in the middle schools who were not fully certified for their subject. Responses to the question about the impact of the new certification requirements for middle school teachers under NCLB were analyzed and reported in the results section.

Definition of Terms

For the purposes of this study, middle school teachers are defined as those teaching sixth, seventh, or eighth grades. Secondary school teachers are those teaching ninth, tenth, eleventh, and twelfth grades and elementary are those teaching grades one through five. Any deviations from this definition by state are noted in the data.

The term "major" is defined as being 25% of the total number of hours in a degree program. This means if a degree program requires 128 credit hours then a major would require 32 hours. Similarly a minor is defined as 15% of the total hours and would require 19 credit hours.

Attrition is the number of people who leave the teaching profession. Ingersoll and Jerald (2002) called the high attrition rate in education the "revolving" door of teaching.

Teacher quality is defined as a teacher's ability to help all students reach high standards. This is measured by scores on standardized tests in NCLB although teachers, students, and parents argue there is more to achievement than what one does on standardized tests.

CHAPTER 2
REVIEW OF THE LITERATURE

An analysis of the federal Schools and Staffing data of 1994 and 2000 indicates that the rate of highly qualified teachers based on certification and a major in the field did not improve in the majority of the states. Using the 2000 data, only about two-thirds of the secondary math and science teachers would meet the current *NCLB* criteria of highly qualified (Blank, 2003). Further analysis of these surveys indicates that increases in enrollment, the need for more teachers, and class size reduction policies have reduced the chances of having highly qualified teachers. Fortunately, the requirements of *NCLB* allow the states some flexibility in determining other criteria to determine if a teacher is highly qualified.

Based on recently released results from the federal Schools & Staffing Survey, the percentage of out-of-field teaching is high, with the largest concentration of these teachers in high poverty and high minority schools (Jerald & Ingersoll, 2002). The problem is even worse in the middle school than in the high school. According to a comparison of this survey and one done in 1993-1994, there has been no reduction in out-of-field teachers and as a matter of fact there has been a slight increase.

The questions raised by the Jerald and Ingersoll (2002) study include why are there so many out-of-field teachers, who is to blame for the problem, and are these teachers concentrated in one area? Another major question is how and why this practice varies across the states.

A special analysis of results from the U.S. Department of Education's 1999-2000 Schools and Staffing Survey was conducted by Richard M. Ingersoll (2002). The data in the survey were

from a large, representative sample of American teachers. For the purpose of the study secondary classes were defined as departmentalized courses in seventh through twelfth grade and middle level grades included departmentalized classes in fifth through eighth grade, but this group was composed of predominantly 7th and 8th grade classes.

According to the analysis, 24% of secondary classes in core academic classes were taught by teachers lacking even a minor in the subject and in high poverty schools that rate rises to 34% (Ingersoll, 2002). This statistic was even higher in the middle grades where 44% of middle grade classes in core academic subjects were taught by a teacher who lacked even a college minor in the subject being taught and in high poverty schools this rose to 53% (Ingersoll, 2002). Further results indicated this problem was particularly severe in mathematics where 70% of middle school math classes in high poverty schools were taught by teachers without even a minor in math. This survey defined a major as at least thirty hours in a subject and a minor as having between 12 and 24 hours in a subject. These hours do not include methodology courses and majors such as science education do not count. The percentage of out-of-field teachers varies by state but Louisiana ranked first with the highest percentage of teachers in secondary schools teaching out of their field.

There is no arguing the fact that teacher quality is a critical determinant of how much students learn. Good teachers can advance their students a full grade level more than the students assigned to a bad teacher (Sanders & Rivers, 1996). Further research confirms teacher quality variables such as being fully certified and having a major in assigned teaching areas strongly predict students' individual achievement (Kaplan & Owings, 2001). The Secretary's Annual Report inaccurately reports that only 38% of teachers have an undergraduate or graduate degree outside of education (U.S. Department of Education, 2002). NCES data in this same report

shows that 95% of high school teachers and 66% of middle school teachers had a degree in the subject they taught or in subject area education which requires the equivalent number of hours as a degree in the subject as well as methodology courses (Darling-Hammond & Youngs, 2002). How can the same report state that only 38% have a degree outside of education and then say 95% of high school teachers have a degree in the subject they teach and 66% of middle school teachers also have a degree in their subject? These figures are contradictory – you can't have it both ways. Feistritzer (1999) found schools with teacher preparation programs required undergraduate students to have 36-39 hours in the subject they plan to teach and post-baccalaureate students to have 31-33 hours in the subject they plan to teach. These hours do not include methodology hours so in most states this is equivalent to the number of hours required for a major in the field.

Jerald Ingersoll (2002) sees the problem with out-of-field teaching not simply one of shortages in the teaching profession. They blame it on a combination of factors including the way schools are organized and operated, and how teachers get assigned within the school systems. They also attribute the problem to the "revolving door" nature of teaching where teachers keep leaving the profession.

The Ingersoll (2002) study demonstrates the current problem with certified teachers in the middle school on a nationwide basis. Further investigation needs to be done on the problem in this country and how the definition of "highly qualified" will help or hinder the hiring of teachers for the middle school, as outlined in the *No Child Left Behind Act* (2001).

Public and private elementary and secondary enrollment is expected to increase 10% by 2006(Hussar & Gerald, 1996). Of that increase, 5% is expected to occur in grades K-8 and 21% in grades 9-12. As of 2001 there were 1,945,000 elementary teachers and 1,319,000 secondary

teachers working in the U.S. By the year 2006, it has been projected the U.S. will need 1,974,000 elementary teachers and 1,369,000 secondary teachers (Hussar & Gerald). This means an increase of 32,000 elementary teachers and 50,000 secondary teachers in the U.S. These figures only hold true if no teachers resign, retire, or move to positions outside of the classroom. Obviously that is not going to happen so the demand will be even greater. The data indicates that the need to hire new teachers is not a result of more students but of teacher turnover (Ingersoll, 2002).

By 2007 there will be nearly three million more children in school than there are today – approximately 54 million students (U.S. Department of Education, 1998). This is happening just as teacher retirement is increasing meaning many of these children will be taught by new teachers. Already more than 500,000 people enter the profession on emergency or provisional licenses. Also, fewer than 75% of America's teachers can be considered fully qualified, as defined as being certified in the subjects or areas they teach which is not the same as highly qualified in *NCLB*. This shortage is felt more in high poverty areas especially in science and math. Two programs, Troops to Teachers and Teach for America, have been developed to help overcome this shortage. Unfortunately over 60% of the Teach for America teachers leave after the second year so they have not offered a long-term solution to the teacher shortage much less to the shortage of highly qualified teachers (Education Week, 2004).

A large percentage of students in schools are already being taught by teachers without a major or a minor in the field and there will be an increase in the need for teachers in 2006 even though teachers already represent 4% of the entire civilian workforce (Ingersoll, 2002). If one adds to this dilemma the requirement that all teachers be highly qualified by 2006 then the question arises as to how states plan to meet this requirement. In an interview, Elizabeth Arons,

Chief Executive Officer for Human Resources, New York City schools, stated "We do not expect to find any more teachers coming from the universities and colleges than currently are – mandating legislation does not mean the supply of teachers will increase. So I do not know how the federal government honestly expects the states/localities to meet this mandate by 2006" (Education Week, 2004, p. #4).

However, all the news is not bad. In the past 15 years the number of new teacher graduates has increased by 49% and the number of teacher preparation programs has increased from 1,287 to 1,354 (Feistritzer, 1999). Some other interesting facts which arose from this study:

- People are entering the field later in life and their academic careers
- 28% of prospective new teachers began their study at the post-baccalaureate level
- 65% of the teacher preparation programs offered alternative certification routes
- 49% of the prospective secondary teachers had degrees in fields other than education
- 29% of the prospective elementary teachers had degrees in other fields
- 30% of the prospective middle school teachers had degrees in other fields

What does all this mean for the current study of highly qualified teachers? If all these prospective teachers end up teaching in the field that their previous degrees were in, then they would be considered highly qualified.

Some states have made progress in meeting the "highly qualified" requirement of NCLB. However, most states have merely set-up the criteria for determining if a teacher is highly qualified (Keller, 2003). The Education Trust has called for clarification from the Department of Education on the guidelines for the teacher quality provision of the law. Ten states have put into law all the requirements of the federal law, twenty-two have done some work toward that goal,

and eighteen states still have a long way to go (Keller). Wisconsin has determined that "highly qualified" means a bachelor's degree, completion of an approved licensing program, and passing an exam in the subject taught (Keller, 2003). Tennessee will meet the standard by saying teachers are "highly qualified" based on improvement in student test scores. These requirements are generally applied to new teachers but states are struggling with how to determine if experienced teachers without a major in their field are "highly qualified". Some states are utilizing the National Board Certification, meeting assessment requirements set up under an individual professional development plan, or service on curriculum committees. More controversial methods are having three satisfactory evaluations or having 21 credit hours in the subject (Keller). Virginia teachers can meet the highly qualified standard via performance evaluations and subject matter competency (Education Week, 2004).

Louisiana has developed two sets of requirements to be deemed "highly qualified". Teachers who are new elementary teachers must have a valid elementary certificate and pass the Praxis elementary education exam. A new middle school teacher (grades 6-8) must hold a valid teaching certificate, pass the Praxis content area exam for every subject taught OR have a major in every subject taught OR have earned a master's degree in every subject taught. A new secondary school teacher must have a valid secondary education teaching certificate for every subject taught and pass the Praxis content area exam for every subject taught OR have a major in every subject taught OR have earned a master's degree in every subject taught. In addition to these requirements, new teachers are required to complete 150 clock hours of professional development over a five-year period to maintain their certification (Governor's Office of Education, 2003). Experienced teachers have two additional methods for becoming "highly qualified." Regardless of the grade level, experienced teachers can meet the "highly qualified"

requirement by achieving National Board certification or acquiring 90 Continuing Learning Units by the end of the 2005-2006 school year (Louisiana Department of Education, 2004).

According to Rod Paige in his annual report on teacher quality, one of the problems with using subject-matter tests to determine content knowledge is that each state determines its own passing rate on the test (U.S. Department of Education, 2002). Often states set these scores below the national average. The Praxis Pre-Professional Skills Test is used in 29 states, including Louisiana, for certification. Louisiana has set the passing score on the reading part of this test at 172 which is less than the 20th percentile. In math, Louisiana set a passing score of 170, again less than the 20th percentile. Writing is set at the 16th percentile for passing (U.S. Department of Education).

State certification processes also need to be streamlined in order to facilitate the hiring of teachers with higher academic standards (U.S. Department of Education, 2002). The Annual Report on Teacher Quality recommends eliminating the student teaching component of the certification process or making it optional. Attending a school of education would be optional, and other bureaucratic hurdles would be eliminated (U.S. Department of Education). It appears Louisiana is going in the opposite direction with its new certification structure by trying to keep most of the old requirements and adding even more requirements.

Another aspect of certification attacked in the Secretary of Education's report is pedagogy. According to this report, "there is little evidence that education course work leads to improved student achievement" (U.S. Department of Education, 2002, p. 19). Paige goes on to say, "knowledge of pedagogy, degrees in education, or amount of time spent practice teaching which are requirements that make up the bulk of teacher regimes" is surrounded by a "great deal of contention (U.S. Department of Education, 2002, p. 8). Louisiana's new certification structure

has taken this as gospel and now requires only nine hours of methodology coursework for middle school teachers (grades 4-8), six semester hours in reading coursework, and nine hours of student teaching.

The Secretary's Annual Report has been challenged on many grounds regarding teacher quality and preparation. The report suggests that it is based on solid research but the little bit of research cited does not meet the Department of Education's standards for the use of scientifically-based research to formulate policy (Darling-Hammond & Youngs, 2002). Darling-Hammond and Youngs (2002, p. 15) assert that the Secretary's report "cites almost no research that would meet scientific standards, misrepresents findings from a large number of sources, and includes many unsupported statements about teacher education and teacher certification." The contention that teacher education and certification do not matter was refuted by a study done in 2001 which analyzed 57 studies correlating teacher education and teacher effectiveness as measured by student achievement across socioeconomic status and prior achievement levels (Wilson, Floden, & Ferrini-Mundy, 2001) Goldhaber and Brewer (2000, p. 139), in the same report cited by the Secretary as saying a major in the field was more important than certification, state :

> We find that the type (standard, emergency, etc.) of certification a teacher holds is an important determinant of student outcomes. In mathematics, we find that students of teachers who are either not certified in their subject (in these data we cannot distinguish between no certification and certification out of subject area) or hold a private school certification do less well than students whose teachers hold a standard, probationary, or emergency certification in math. Roughly speaking, having a teacher with a standard certification in mathematics rather than a private school certification or a certification out of subject results in at least a 1.3 point increase in the mathematics test.

The study also shows that certified teachers had a greater effect on student achievement than having a degree in the subject they teach. This would suggest that taking the courses needed for certification increases the effectiveness of teaching the content.

The 34th Annual Phi Delta Kappa/Gallup Poll set out to determine how the public feels about the *No Child Left Behind Act* (2001) and the expanded role of the federal government in education (Rose & Gallup, 2002). The questions in the poll relating specifically to teacher certification are the ones of interest here. Nearly all of the respondents felt teachers should be certified in the subject they teach. When asked what schools should do if there was a shortage of certified teachers in the field, 93% indicated the most qualified teacher available should be used.

The survey was done using a sample of 1,000 adults over the age of 18. The sample used was an unclustered, directory assisted, random-digit telephone sample based on a proportionate stratified sampling design (Rose & Gallup, 2002). The final sample was weighted so the distribution of the sample matched current estimates from the U.S. Census Bureau (Rose & Gallup).

The poll yielded some interesting results concerning licensing (certifying) teachers. In response to the question of how important it is to have teachers licensed by the state in the subject area they teach, 84% of public school parents said it was very important and an additional 13% said it was somewhat important. Respondents also felt that teachers should have to pass a competency exam in the subject they teach before being certified. However, when asked what schools should do if they cannot get enough certified teachers, respondents came up with three alternatives. These were: use the most qualified teacher available, reduce the number of courses offered, and increase the number of students in a class. The most telling question is what respondents felt were the most pressing problems facing the public schools in their

community. Only 8% felt getting good/quality teachers was a problem. This would seem to indicate most people surveyed are satisfied with the quality of the teachers in their schools. If this is true then why does the federal government feel it is necessary to add “highly qualified” to the requirements to teach? Will this lead to more qualified teachers in the middle school or to a greater shortage?

CHAPTER 3
METHODOLOGY

Introduction

The purpose of this study was to analyze how the fifty states and the District of Columbia defined "highly qualified teacher" for middle schools and then to explore how these new definitions will impact staffing in the middle schools. As an administrator in a middle school, I realize that finding good middle school teachers is difficult. Louisiana currently has no middle school certification but has an elementary (grades 1-8) certification which allows individuals to teach in the middle school. This certification means a teacher can teach more than one subject and allows flexibility in middle school scheduling. With the new requirements for "highly qualified" teachers, these elementary certified personnel will not qualify for middle school teaching. Many states are facing similar dilemmas of how to recruit and retain enough middle school teachers while also meeting the "highly qualified" stipulation of No Child Left Behind.

Research Questions

Survey research was used to obtain answers to the following research questions:

1. What are the differences in certification requirements in each state for a middle school teacher before and after the enactment of *NCLB?*
2. What percentage of middle school teachers in each state are non-certified, or working with a one year certificate, or teaching out of their field, or are teaching on waivers in the middle school?
3. What is the definition of highly qualified teacher in each state?

4. What percentage of the current middle school teachers are certified but not highly qualified, are certified and highly qualified, or are neither highly qualified nor certified?
5. What impact will the "highly qualified" component of NCLB have on middle school staffing?

Significance

It is important that administrators in middle schools and policy makers develop an understanding of what is meant by "highly qualified" under the No Child Left Behind legislation (2001) and how this differs across state lines. This new requirement will have significant impact on the process of hiring new teachers for middle school positions when the policy is fully enacted for the 2006-2007 school year. Administrators of middle schools will have to delve more deeply into applicants' preparation before assigning them to teach a single subject, personnel offices will have to specify what subject an applicant is allowed to teach in the middle school according to what they are considered to be "highly qualified" to teach, and policy makers will have to revamp certification structures to avoid the problem of having teachers who are certified but not "highly qualified".

Participants

Certification officers from the states and the District of Columbia participated in this study. Sometimes the certification function was carried out by other offices such as the teacher credentialing office, educator licensing office, accountability office, educational credentialing office, teacher standards board, board of educational examiners, or office of professional preparation services. Regardless of the name, the jobs are the same – to evaluate and approve applications for teacher certification. In some cases the certification officers referred the questions to other personnel at their state department of education. The *NASDTEC Manual on the Preparation and Certification of Educational Personnel* (2003) was used to obtain the correct address and phone number of persons responsible for certification in the various states.

The actual names of the people in the various state offices were obtained from the individual states' websites. Every certification office in each state was contacted by the researcher via phone or e-mail prior to the start of the study to explain what was being studied.

Instrumentation

A questionnaire (See Appendix A) was developed for use in this research and piloted with the cooperation of the certification officer in Delaware. The questionnaire and a transmittal letter on UNO letterhead prepared by the researcher were mailed to the Professional Accountability Office, Delaware Department of Education. The questionnaire asked for data concerning the number of certified middle school teachers in the state, how many of these teachers would be considered highly qualified, and what the certification officer believed the impact of NCLB would be on staffing middle schools. A dialogue via e-mail was conducted to clarify any unclear questions.

Questions 6 and 9 were the two questions needing clarification based on this field test. The certification officer in Delaware was unsure how to respond to the question, "How many middle school teachers are teaching out of their field?" The officer explained most of their middle school teachers were certified in elementary education which allows them to teach every subject so they could never be teaching out of their field. This question was modified to ask, "How many middle school teachers are teaching with less than 12 semester hours in the subject they teach?" Twelve hours was used because that was the least amount of hours found to constitute a minor in the field.

The other question needing revision was, "What do the certification officers perceive the impact of the current certification requirements will be on middle school staffing?" The Delaware officer asked what was meant by impact. He wanted to know if I meant what the state

was doing to increase middle school certification or how the state was changing middle school certification. I told him what I was really looking for was how many middle school teachers would meet the criteria for being "highly qualified" by the deadline given in the legislation. The question was then revised to ask, "In your best informed estimate, what percentage of middle school teachers in your state will be "highly qualified" by 2006?". These questions were revised to reflect the changes and the final questionnaire was developed (See Appendix B).

Procedures

This research used a macro approach, analyzing data collected from the State Departments of Education (DOE) of all fifty states and the District of Columbia. The DOE websites provided much of the initial data for the study. More detailed information was collected, via a questionnaire, from state officials who deal with certification and the *No Child Left Behind Act of 2001.* Clarification on information found on the websites was also collected from these officials.

In addition to information found on each state's website regarding certification and "highly qualified teachers," the Title II reports from each state made to the federal government were studied to obtain further information. These reports were based on data from the preceding year while the state's websites were based on current data.

Once the questionnaire was developed, it was submitted to the University of New Orleans Human Subjects Committee. Dr. Scott Bauer, then chairman of the committee, determined that approval was not necessary for the study because all respondents were public officials. However, Dr. Bauer left the University in August 2004 before the study could be completed. Thus, another request to the committee was sent in December 2004 and approved on January 28, 2005.

Every certification office in each state was contacted by the researcher via phone or e-mail

(depending upon which contact information was available from the state web site) prior to the start of the study to explain what was being studied. In January, 2005, the questionnaire, a cover letter reminding them of our previous contact, and a stamped return envelope were sent to each certification office. The letter also included alternate ways to contact the researcher, such as e-mail, FAX, or phone, for clarification or to respond to the questionnaire.

Three weeks following the initial mailings, a FAX was sent to those certification officers who had not responded. The FAX consisted of a cover sheet briefly explaining the study again, the original questions, and a request for their assistance. A third attempt to contact the certification officers who had not responded was made via e-mail six weeks after the initial mailings. Finally, a phone call was made to the certification officers who still had not responded to gain their co-operation in completing the data collection.

Data Analysis

Research Question 1: What are the differences in certification requirements in each state for a middle school teacher before and after NCLB?

This study used descriptive quantitative methods to find patterns in the data. Several tables were constructed in order to give a visual display of the data. One table was developed to show certification requirements before and after NCLB. The headings were changed as more states responded with different requirements. Initially the chart, based on categories identified by the U.S. Department of Education, began as follows:

Table 1
Certification requirements before NCLB

State	Degree			Hrs in major	Testing			State Eval.	Certification Categories			
	None	B.A.	M.A.		Praxis	NTE	State Test		K-6	K-8	Middle	Sec.

The state evaluation column refers to new teacher evaluations which the teachers must pass in order to be considered fully certified. These evaluations usually are based on observations of the teacher in the classroom but may also include portfolios, video-taped lessons, and student input. The observations may be done by school-based administrators, district-level personnel, or outside observers.

Table 2
Certification requirements after NCLB

State	Degree			Hrs in major	Testing			State Eval.	Certification Categories			
	None	B.A.	M.A.		PRAXIS	NTE	State test		K-6	K-8	Middle	Sec.

An index of change table was created to show how states changed their certification requirements after the enactment of NCLB. This table was created to show change across all the certification categories indicated in tables one and two. An analysis was done of this third table

to determine how many categories a state typically changed in regard to certification and if the rigor of the requirements changed after the enactment of NCLB.

Table 3
Index of Change in Certification Requirements

State	Number of Categories[a]	Rigor in Categories[b]	Index of Change[c]
Example	(+2) -1 = +1	+2(after NCLB)	+3

[a] Number of types of requirements that changed after NCLB

[b] Relative rigor of requirements before and after NCLB

[c] Number of categories + rigor = Index of change

Tables one and two answered Research Question 1: What are the differences in certification requirements in each state for a middle school teacher before and after the enactment of NCLB? Certification requirements prior to NCLB were obtained from the *NASDTEC Manual on the Preparation and Certification of Educational Personnel (1999)* and from the first question of the survey, "What were the certification requirements for middle school teachers before 2001?" Current certification requirements were found in the *NASDTEC Manual on the Preparation and Certification of Educational Personnel* (2003) and from question two of the survey, "What are the certification requirements for middle school teachers?" Frequency distributions were created for each category in the certification tables for both before and after NCLB. Any changes in certification requirements were noted in an index of change table. Because the data are categorical, each frequency distribution was presented in visual form as a bar chart for before and after NCLB.

Research Question 2: What percentage of middle school teachers in each state are non-certified, or working with a one year certificate, or teaching out of their field, or are teaching on waivers in the middle school?

The data collected to answer Research Question 2 were shown in Table 4. This table evolved as new types of not fully certified certificates were discovered. If the same type of not fully certified certificate appeared in the response of five or more states then another column was added to the table. If it appeared less than five times it was simply listed under the other column in the table.

The data derived from the answers to Research Question 2 were analyzed on a percentage basis by state. This was done by adding all four categories to obtain a total for the state. These were averaged to obtain a national percentage.

Table 4
Percentage of Not Certified Teachers by Category

State	One Year Cert.	Temporary Cert.	Waiver	Other	Total

Research Question 3: What is the definition of a "highly qualified teacher" in each state?

Another table was constructed showing requirements for teachers to be considered highly qualified. Table 5 shows the requirements as applied to new teachers. Table 6 shows the High Objective Uniform State Standard of Evaluation (HOUSSE) for currently employed teachers to be considered "highly qualified". The HOUSSE requirements vary greatly by state. These tables also evolved as more data was collected but they began as this:

Table 5
Requirements for New Teachers to be "Highly Qualified"

State	Major in field	Minor in field	Subject Area Test	Evaluation

Table 6
Requirements for "Not New Teachers" to be "Highly Qualified" (HOUSSE)

State	# of CLUs	Value-Added	Experience	Evaluations

Table 5 shows the requirements for new teachers to be highly qualified in each state and Table 6 shows the requirements for veteran or "Not New Teachers" to be highly qualified. Information for the tables was compiled from each state's Department of Education website and responses to question three of the survey, "What are the requirements for a middle school teacher to be highly qualified?" The tables indicating the requirements for a middle school teacher to be "highly qualified" were also analyzed using a frequency distribution. Each individual category was analyzed using a frequency distribution and presented as a bar graph. In addition, the table was analyzed as a whole using a frequency distribution by category and presented as a bar graph.

Research Question 4: What percentage of the current middle school teachers are certified but not highly qualified, are certified and highly qualified, or are neither highly qualified nor certified?

Information for this analysis came from questionnaire responses, each state's Department of Education website, and each state's Title II report to the Federal Government. The data was

entered into Table 7 and a frequency distribution was done and displayed in bar charts compared to the national average which was computed from the data collected from all states.

Table 7
Certified not Highly Qualified, Both or Neither

State	Certified not highly qualified	Certified and highly qualified	Not highly qualified nor certified

Research Question 5: What impact will the "highly qualified" component of NCLB have on middle school staffing?

The final table, Table 8, was constructed showing the predicted shortage of middle school teachers in each state based on highly qualified middle school teachers as defined by the state. This analysis looked at the current number of middle school teachers, the current shortage of "highly qualified" middle school teachers, and the predicted turnover rate of teachers based on either the state's reported turnover rate or on the national average. These data were used to predict the shortage of "highly qualified" middle school teachers for the 2005-2006 school year in each state and the District of Columbia. This calculated total was compared to responses to Question nine of the survey – "In your most informed estimate, what percentage of middle school teachers in your state will be "highly qualified" by 2006?" A predicted national shortage of middle school teachers was calculated by adding all of the state's shortages. This table was as follows:

Table 8
Impact of NCLB on Middle School Staffing

State	# Middle School Teachers	% "Not Highly Qualified"	Predicted Turnover %	Shortage	Predicted # of Not Highly Qualified Middle School Teachers

As data arrived, they were entered into the various matrices. When new categories arose they were added to the correct table. The column labeled shortage was calculated by adding Turnover percentage and Not Highly Qualified percentage. This is not entirely accurate because there will probably be some not highly qualified teachers included in the turnover percentage but there is no way to predict this amount. This was considered the worst case scenario. A best case scenario was also computed by assuming all of the turnover came from the "Not highly qualified" percentage. This computation was done by subtracting the turnover percentage from the percentage of "Not highly qualified" and multiplying the resulting percentage by the total number of middle school teachers. The data are presented in summary form in Chapter 4 and the findings are discussed in Chapter 5.

CHAPTER 4
RESULTS

Introduction

In 2001 the *No Child Left Behind Act* was passed calling for major reforms in education across the country. One of the least publicized of those reforms was the call for "highly qualified teachers" in every classroom. While this component has not caught the attention of the general public as much as the Annual Yearly Progress part of the law has, it has departments of education across the country scrambling to comply. This study looked at how the fifty states are meeting the challenge of putting a "highly qualified teacher" in every classroom.

Information was collected from a variety of sources. Questionnaires were mailed to the certification offices of every state and DC requesting information pertinent to the study. A copy of the questionnaire is found in Appendix B. Additional information was taken from each state's Department of Education website and information the states reported to the federal Department of Education which was subsequently posted on its website.

Research Question 1

What are the differences in certification requirements in each state for a middle school teacher before and after the enactment of NCLB?

Response Rate

Forty-seven states replied to Question 1 of the survey. Eleven states' responses were very detailed about the requirements for being certified to teach middle schools. Twenty-nine states' responses were not as complete so they were augmented with data from the *NASDTEC Manual*

on the Preparation and Certification of Educational Personnel. The data that was provided by the states was compared to that in the NASDTEC manual and found to be identical except the manual provided more detail. Seven states simply replied that they had no separate middle school certification so all of the data for these states came from the NASDTEC manual. This yielded a response rate of 92% even though they were not all complete responses.

Results for Question 1

Certification requirements for each state and the District of Columbia prior to NCLB were obtained from the *NASDTEC* and from the first question of the survey, "What were the certification requirements for middle school teachers immediately prior to 2001?". Only 11 certification officers responded to this question with detailed explanations of the requirements for middle school teachers. These eleven states were Colorado, Florida, Indiana, Kansas, Maryland, Michigan, Missouri, Nebraska, New Mexico, Ohio, and West Virginia. The other 29 respondents were vague in their answers or did not have separate middle school certification. Alaska, Arizona, California, Hawaii, Idaho, Illinois, Iowa, Louisiana, Maine, Minnesota, Mississippi, Montana, Nevada, New Hampshire, New Jersey, New York, Oregon, South Carolina, and Washington reported not having a separate middle school certification but allowed teachers certified as K-6, K-8, K-9, or secondary to teach at the middle school level. The seven other states answering question one, Arkansas, Hawaii, Pennsylvania, Rhode Island, South Dakota, Tennessee, and Utah were a little vague in their responses by basically saying middle school teachers either held elementary or secondary certification. Illinois and Kansas both reported having had a K-9 certification, Delaware defined middle school as grades 5-8, and Florida defined them as 5-9. Four returned surveys did not answer Question one at all.

Appendix C contains tables showing the certification requirements in the 50 states and DC

prior to NCLB and after NCLB. Information for the table for any states who did not respond to the survey or who did not answer Question one of the survey was obtained from the National Association of State Directors of Teacher Education & Certification (NASDTEC).

Each category was analyzed using a frequency distribution and plotted on a bar chart. Another frequency distribution was done for the entire table and also presented in visual form as a bar chart. The data were presented individually in order to show the frequencies of the subcategories under degree required, subject hours required for middle school teachers, testing, and certification categories. The hours required in a subject to be taught in middle school are shown as ranges. The ranges are 0-14, 15-19, 20-24, and 25+.

The first category, degrees required, refers to the type of degree necessary to teach in a middle school prior to NCLB. The subcategory None was used in some states for vocational courses, special courses such as Alaskan languages, and for some art and foreign language courses. It is included in this chart because the arts and foreign languages are considered part of NCLB when defining “highly qualified teachers”. All of the states that included none in their responses for these subjects also required a BA for the other subjects so data for these states were entered twice in SPSS. It was entered once for the “none” category and once for the BA. This accounts for the total N in SPSS being 58 as opposed to 51. No states really required a master’s degree to teach but some required a fifth year above the BA, so these were included in that category. These data were not entered twice since those states will not issue a teaching credential without the fifth year.

Table 9
Degrees Needed to Teach in Middle Schools Prior to NCLB

Degree	Frequency	Percent	Cumulative Percent
none	7	12.1	12.1
BA	49	84.5	96.6
5th year	2	3.4	100.0
Total	58	100.0	

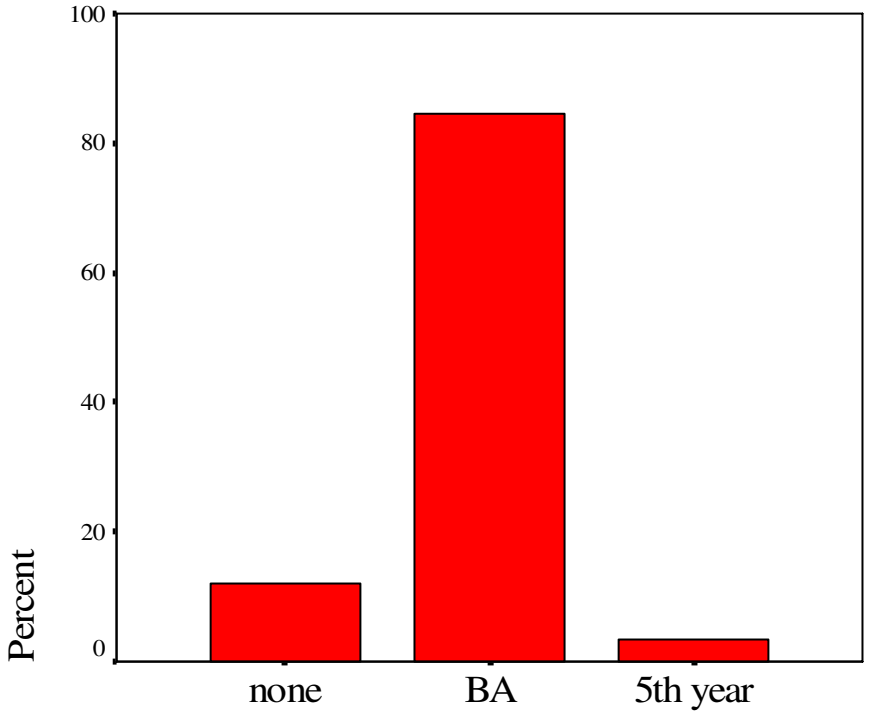

Figure 1. *Degrees required prior to NCLB*

The second category, hours in subject, refers to the number of semester credit hours required in the subject matter taught by a middle school teacher. There were three states that reported this information in terms of hours spread over multiple subjects. Delaware required middle school teachers to have nine credit hours in three different subject areas which is why it is

recorded in the range of 25+. Maine required middle school teachers to have a total of 16 subject hours but divided among four subjects so it was included in the range of 15-19. New York required its middle school teachers to have six hours in each of four subjects so it was included in the range of 20-24.

Table 10
Semester Hours Required in a Subject to Teach in Middle School Prior to NCLB

Hours	Frequency	Percent	Cumulative Percent
0-14	32	55.2	55.2
15-19	13	22.4	77.6
20-24	10	17.2	94.8
25+	3	5.2	100.0
Total	58	100.0	

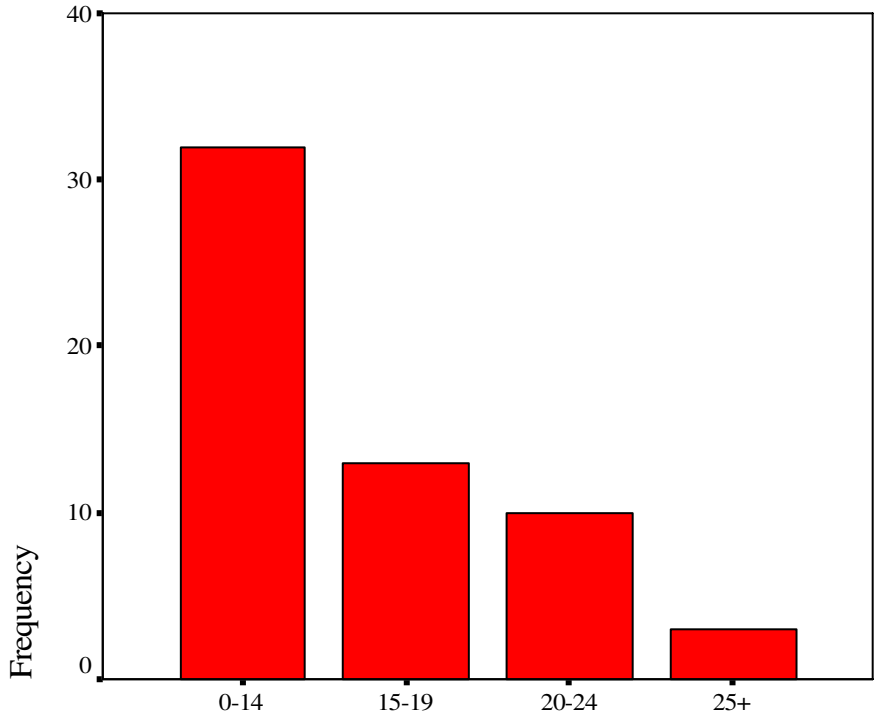

Figure 2. S*emester Hours Required in a Subject to Teach in Middle School Prior to NCLB*

The next category, testing, refers to tests a middle school teacher was required to pass before being certified in that state. There were five possible responses – none, PRAXIS, NTE, a state developed test, or other. Only two states, Connecticut and Nebraska, indicated other in this category. Connecticut required their middle school teachers to have a minimum of a 22 on the English section of the ACT and a 19 on the math portion. If teachers took the SAT then they needed a composite score of 1000 with nothing lower than 400 in either the verbal or math portion of the test. Nevada required their middle school teachers to pass the CBT which was actually the state test developed for California teachers.

Table 11
Teacher Testing Requirements Prior to NCLB

Test	Frequency	Percent	Cumulative Percent
No testing	16	27.6	27.6
Praxis	11	19.0	46.6
NTE	15	25.9	72.4
State Test	13	22.4	94.8
Other	3	5.2	100.0
Total	58	100.0	

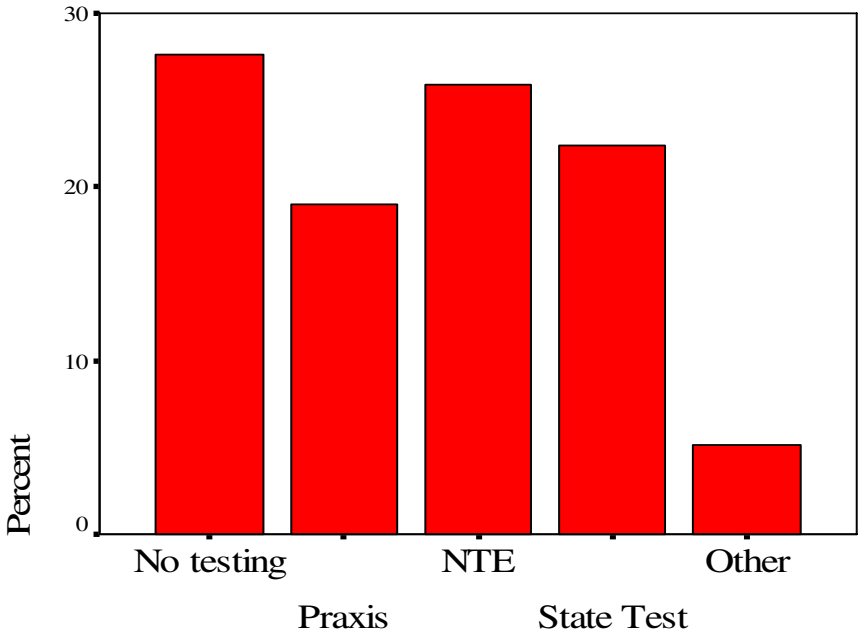

Figure 3. *Required Testing Prior to NCLB*

Passing a state evaluation was part of the certification process in some states prior to NCLB. This evaluation differed from state to state. Some states reported they required observations of the teacher by a team of observers, others required a portfolio to be evaluated, and a few states required a video of the teacher teaching in the classroom which was then evaluated by trained observers. The one thing all of these had in common is that they were designed by the state's Department of Education and were applied to all new teachers prior to receiving any certification. These were all completed during the first year of a teacher's classroom teaching. Other states had local evaluations or state evaluations but these were not tied to certification but merely to attaining tenure or a lifetime certificate.

Table 12
State Evaluations Prior to NCLB

Evaluations	Frequency	Percent	Cumulative Percent
None Required	45	77.6	77.6
Required	13	22.4	100.0
Total	58	100.0	

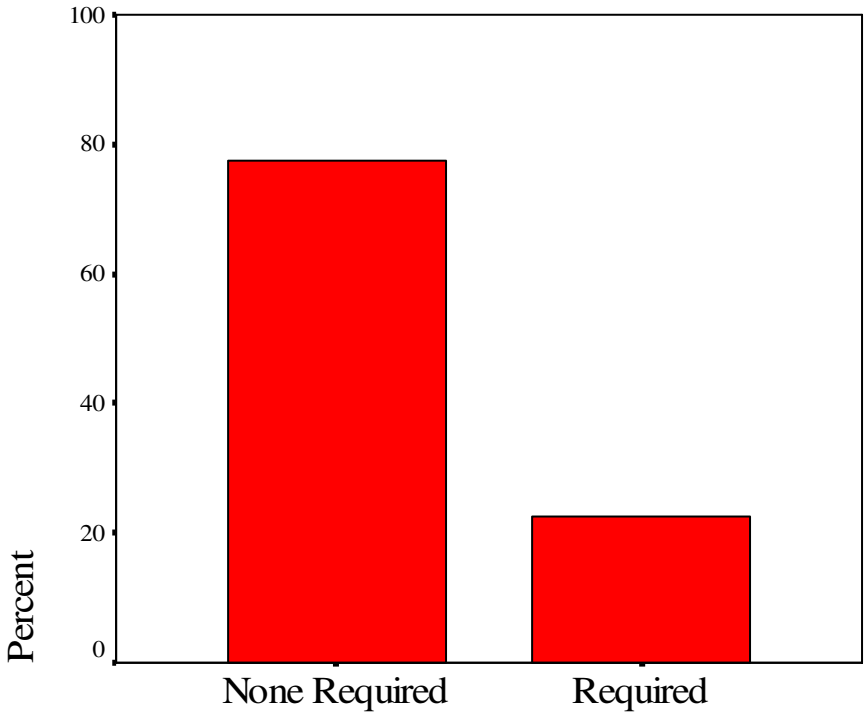

Figure 4. *State Evaluations Prior to NCLB*

Certification categories vary from state to state. The data in Table 13 came from the responses to Question 1 of the survey and the *NASDTEC Manual.* The categories indicated are only those from states that allow teachers to be certified to teach middle school. Just because a state does not indicate K-6 certificates does not necessarily mean they do not have such a certificate but merely that a holder of this certificate is not authorized to teach middle school. Indiana and Illinois offer a K-9 certification which I listed as a K-8 certificate. All combinations of certificates which appeared in the data were listed. Thus states were only counted once except in the cases of those states which allow some middle school teachers to work without a Bachelor's degree.

Table 13
Certification Categories Prior to NCLB

Grade Categories	Frequency	Percent	Cumulative Percent
K-6 and Secondary	8	13.8	13.8
K-8 and Secondary	16	27.6	41.4
Middle and Secondary	7	12.1	53.4
K-8, Mid. & Sec	6	10.3	63.8
K-6,Middle & Secondary	14	24.1	87.9
K-6, K-8, Mid. & Sec.	4	6.9	94.8
secondary	3	5.2	100.0
Total	58	100.0	

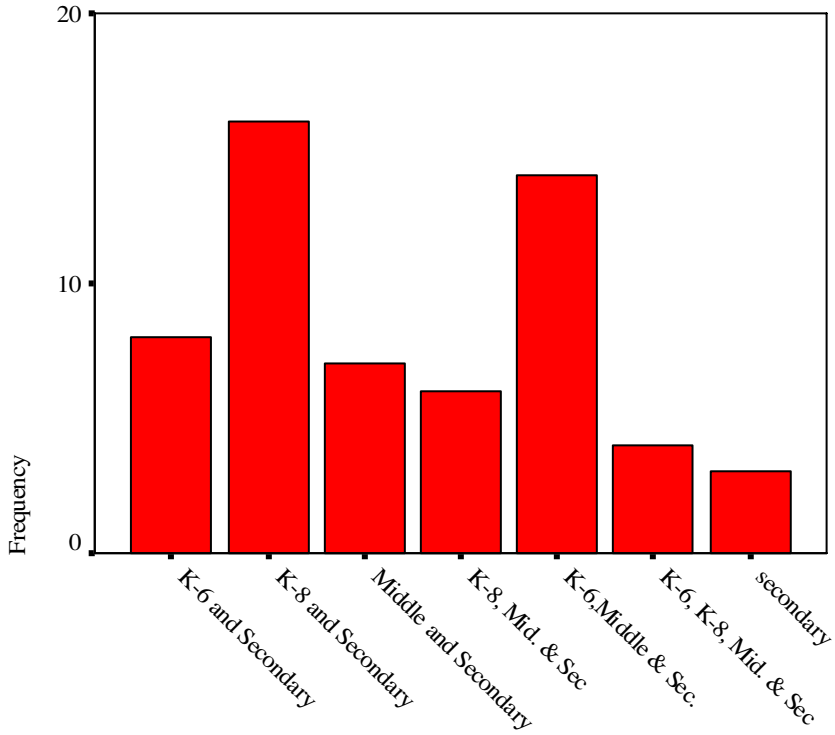

Figure 5. *Certification Categories Prior to NCLB*

The Grade Point Average (GPA) requirement mentioned by the states refers to the teacher's final overall GPA upon graduation from college. It was not subject specific nor was it used for a prospective teacher to get into a teacher education program.

Table 14
Grade Point Average Requirement Prior to NCLB

GPA	Frequency	Percent	Cumulative Percent
None Required	52	89.7	89.7
2.5 Required	6	10.3	100.0
Total	58	100.0	

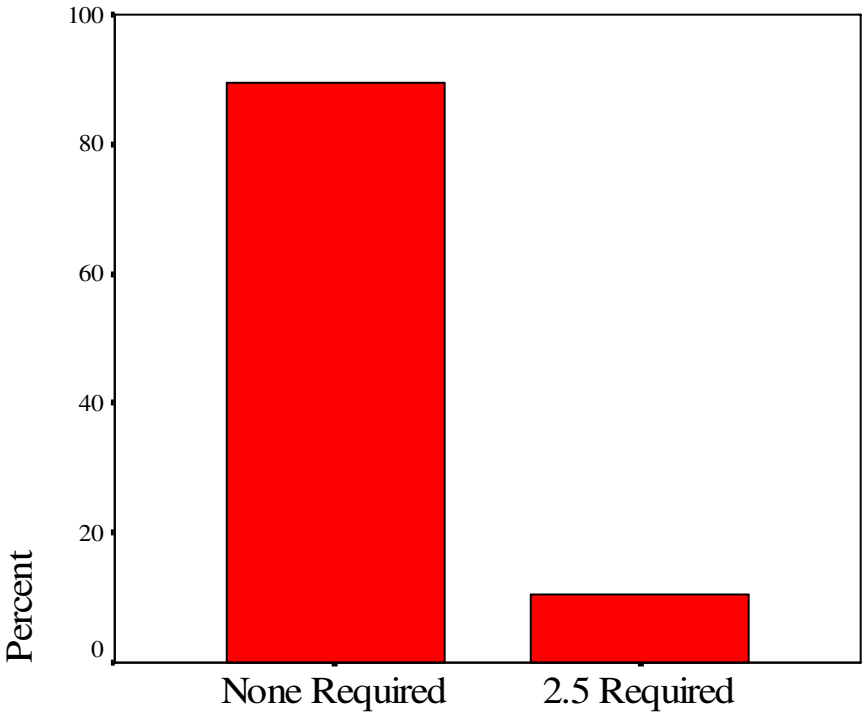

Figure 6. *Required Grade Point Average Prior to NCLB*

Some states required specific courses for middle school teachers. In Alaska teachers were required to complete a course in Alaskan studies and one in multi-cultural education. In California a course in the U.S. Constitution is required for certification. The other states requiring special coursework did not specify what those courses were.

Table 15
Specific Course Requirements Prior to NCLB

Special Courses	Frequency	Percent	Cumulative Percent
None Required	52	89.7	89.7
Required	6	10.3	100.0
Total	58	100.0	

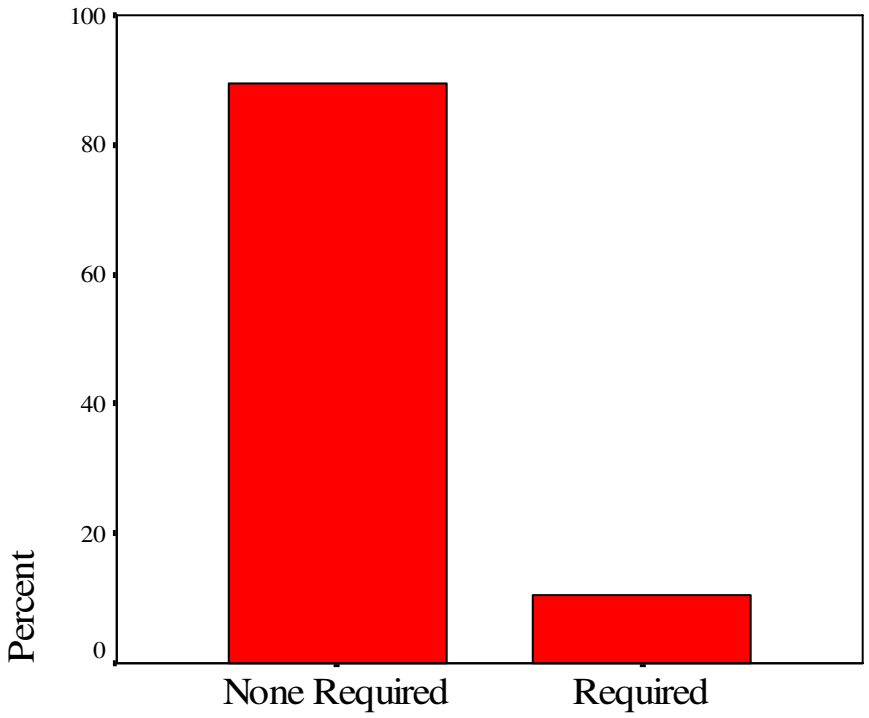

Figure 7. *Specific Course Requirements Prior to NCLB*

Prior to NCLB all but two states, New York and Pennsylvania, required teachers to complete an approved teacher preparation program at a college or university. Approved refers to an NCATE approved college or university program or one that is approved by the state.

How have all of these requirements changed since the enactment of NCLB? This was the second part of survey Question 1. All of the certification officers who responded to my survey referred me to their Department of Education website in order to get the most current information. The data gleaned from those websites and the latest NASDTEC Manual is displayed in the second table located in Appendix C.

The data for requirements after NCLB were analyzed in the same manner as the data for requirements prior to NCLB. The degree required to teach in each state and DC was analyzed first using a frequency distribution and charted as a bar graph. The "none" category still refers to some vocational courses, arts, and foreign languages. Very few changes were made in the degree requirements after *NCLB.*

Table 16
Degrees Needed to Teach in Middle Schools After NCLB

Degrees	Frequency	Percent	Cumulative Percent
None Required	8	13.3	13.3
BA	51	85.0	98.3
+1 Year	1	1.7	100.0
Total	60	100.0	

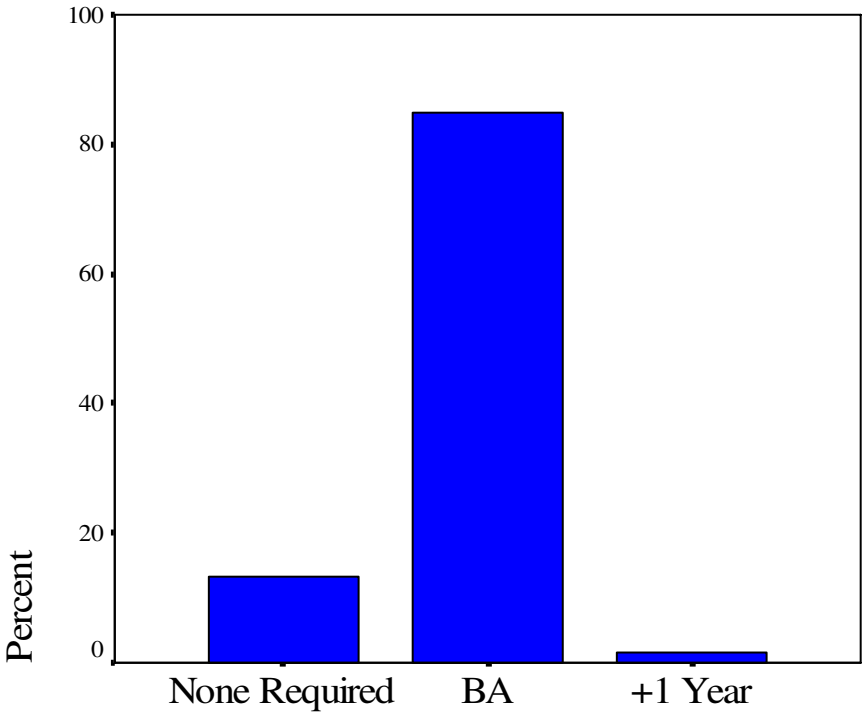

Figure 8. *Degree Required after NCLB*

With the emphasis in the *NCLB* with subject matter knowledge it would seem logical that the states would implement a requirement for a certain number of hours in a subject the teacher was planning to teach. The number of hours shown here only refers to the requirement to teach a subject in middle school, secondary requirements may be different. Also, a teacher teaching 6th grade in an elementary school may be allowed to teach a subject under the elementary school requirements. Some states already had this requirement prior to *NCLB* but did the other states follow suit and did the states which already had this requirement increase their number of required hours?

Six additional states added a requirement for a certain number of points in the subject area in order to teach middle school. Of the 24 states which already had a subject hour

requirement, six increased the number of hours required and four states either lowered the requirement or dropped it altogether after *NCLB.*

Table 17
Subject Hours Required to Teach a Subject in Middle School after NCLB

Subj. Hours	Frequency	Percent	Cumulative Percent
0-15	38	63.3	63.3
16-19	2	3.3	66.7
20-24	11	18.3	85.0
25+	9	15.0	100.0
Total	60	100.0	

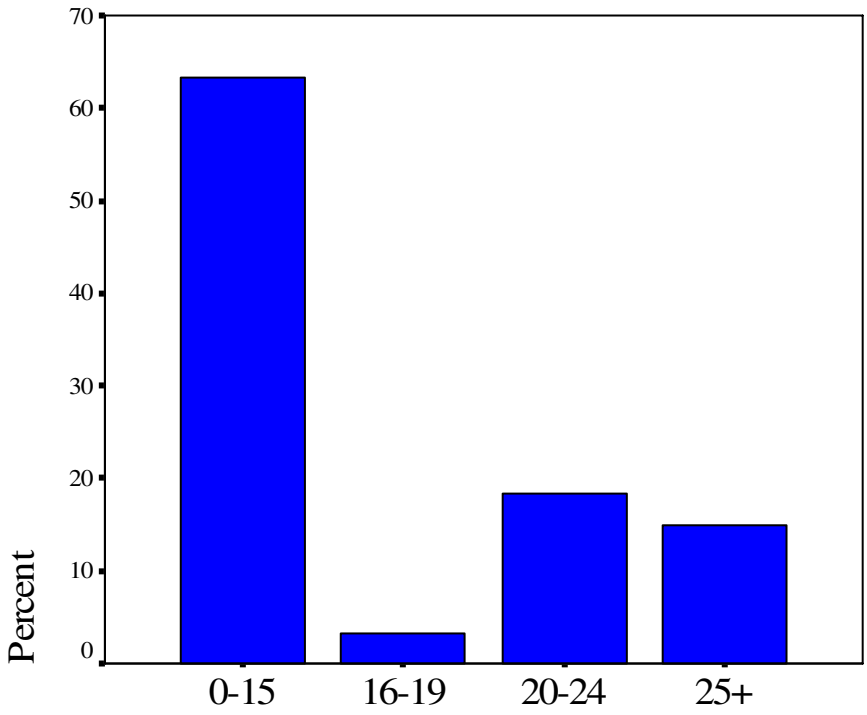

Figure 9. *Subject Hours Required to Teach a Subject in Middle School After NCLB*

Teacher testing refers to paper and pencil tests, or in some cases computerized tests, which a new teacher must take and pass prior to being fully certified. Because colleges and

universities are now receiving report cards based partially on how well their graduates do on these tests many schools are not letting their teacher education students graduate until they pass these tests. The category 'Other' disappeared after *NCLB* as states which required testing required the PRAXIS, the NTE, or a state test with no additional tests allowed.

Table 18
Required Teacher Testing after NCLB

Tests	Frequency	Percent	Cumulative Percent
None	8	13.3	13.3
Praxis	34	56.7	70.0
NTE	2	3.3	73.3
State Test	16	26.7	100.0
Total	60	100.0	

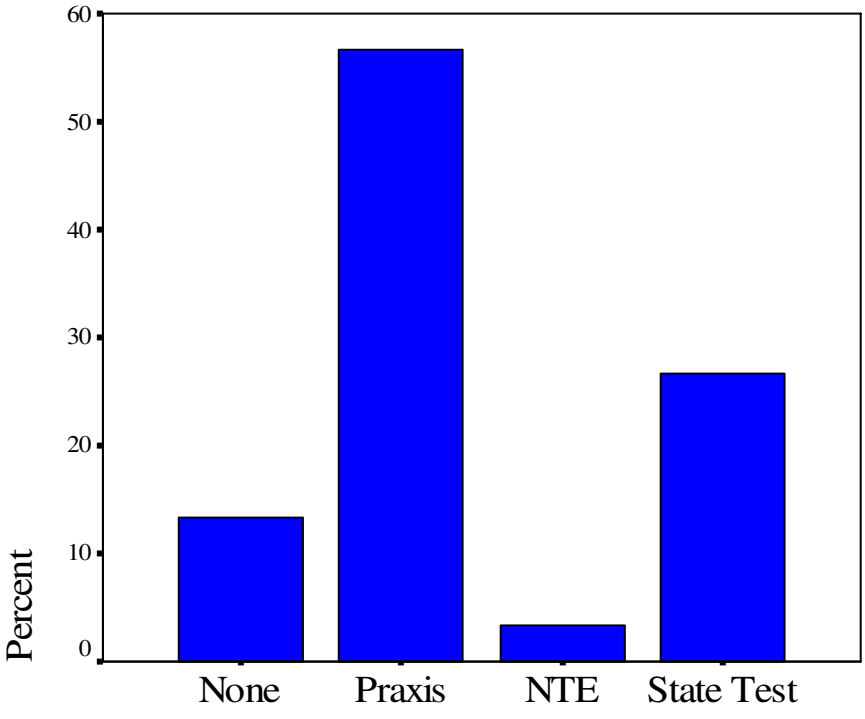

Figure 10. *Required Teacher Testing After NCLB*

The category of state evaluations has an added component – portfolios. Three states indicated portfolios were included as part of the state evaluation process before new teachers are certified the portfolio must be evaluated by state assessors. This addition came only after *NCLB.*

Table 19
State Evaluations Required After NCLB

Evaluations	Frequency	Percent	Cumulative Percent
None Required	34	56.7	56.7
Required	26	43.3	100.0
Total	60	100.0	

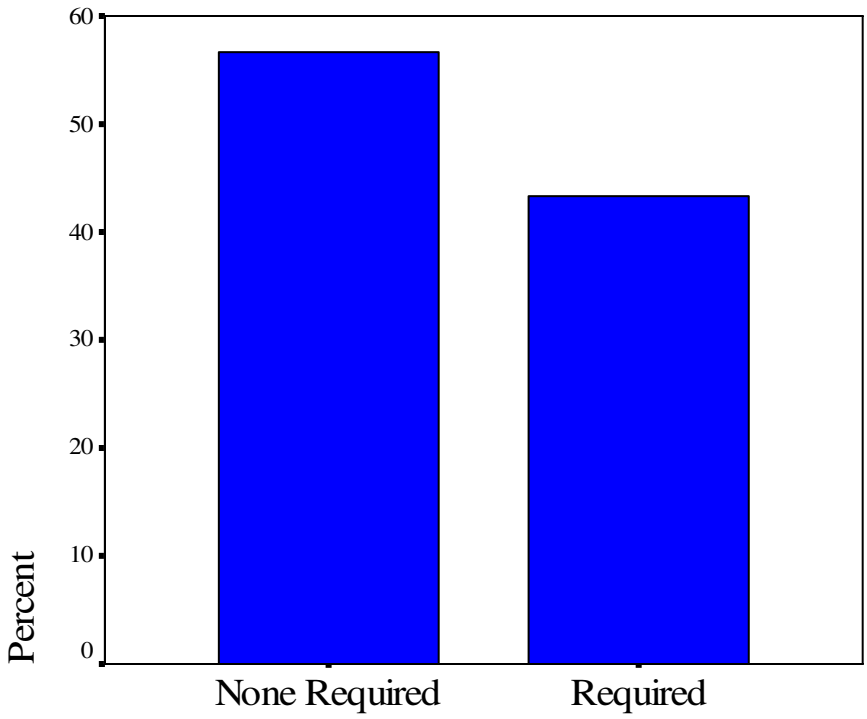

Figure 11. *State Evaluations Required After NCLB*

Certification categories for middle school teachers is one area where the states differ greatly. There were still four categories of certification which allow teachers to teach in middle schools, K-6, K-8, Middle, and Secondary, but many states changed their categories after *NCLB.*

Prior to *NCLB* 23 states allowed a teacher certified K-6 to teach in a middle school but after *NCLB* this number dropped to 22. Twenty-seven states had a K-8 or K-9 certification prior to *NCLB* which allowed teachers to teach in a middle school but after *NCLB* this number dropped to 26. Middle school certification was available in 31 states prior to *NCLB* and after only 25 states still had this certification. Only 1 state no longer allows a secondary certified teacher to teach in middle school. The numbers themselves do not tell the whole story as states shifted their requirements from one certification category to the next. A more detailed comparison can be found in the tables showing certification requirements both before and after *NCLB* found in Appendix C.

Table 20
Certification Categories After NCLB

Certification Categories	Frequency	Percent	Cumulative Percent
K6 & Sec	11	18.3	18.3
K-8 & Sec	15	25.0	43.3
Mid & Sec	6	10.0	53.3
K-8, Mid, Sec	8	13.3	66.7
K-6, Mid & Sec	14	23.3	90.0
K-6, K-8, Mid, & Sec	3	5.0	95.0
Secondary	3	5.0	100.0
Total	60	100.0	

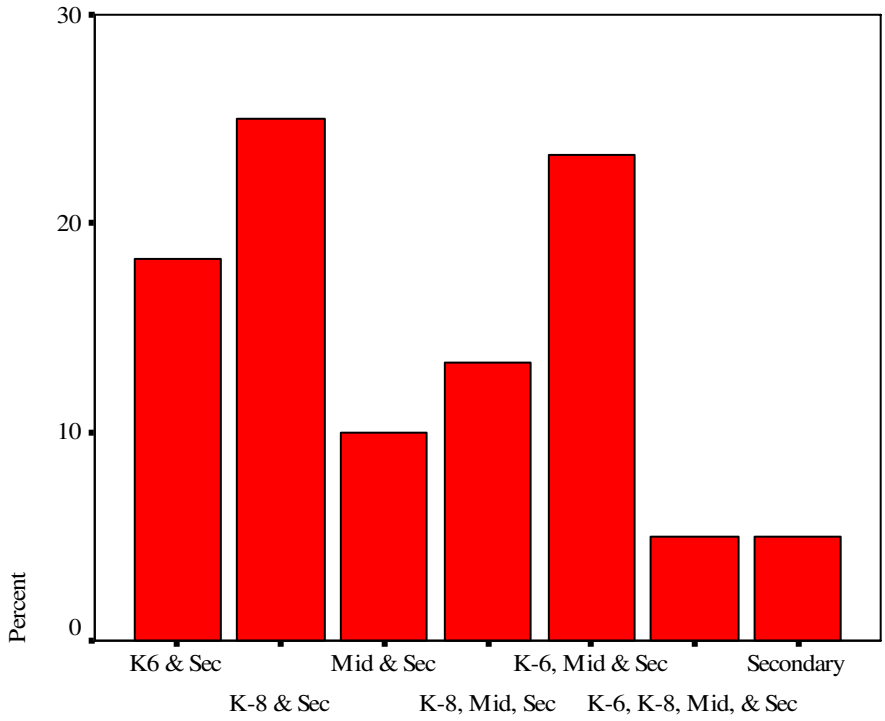

Figure 12. *Certification Categories After NCLB*

The term GPA refers to Grade Point Average. Some states added this requirement for certification after *NCLB.* A few states had a 2.5 GPA requirement prior to the enactment of *NCLB* but after *NCLB* other states added the same requirement or an even higher requirement. This data does not indicate if states have a GPA requirement for students to enter a teacher education program it only refers to the GPA required upon graduation in order to obtain certification. This is an overall GPA, not just in education or in their major if they had a subject matter major.

Table 21
GPA Requirements After NCLB

GPA	Frequency	Percent	Cumulative Percent
None required	39	65.0	65.0
2.5 required	16	26.7	91.7
2.75 required	3	5.0	96.7
3.00+ required	2	3.3	100.0
Total	60	100.0	

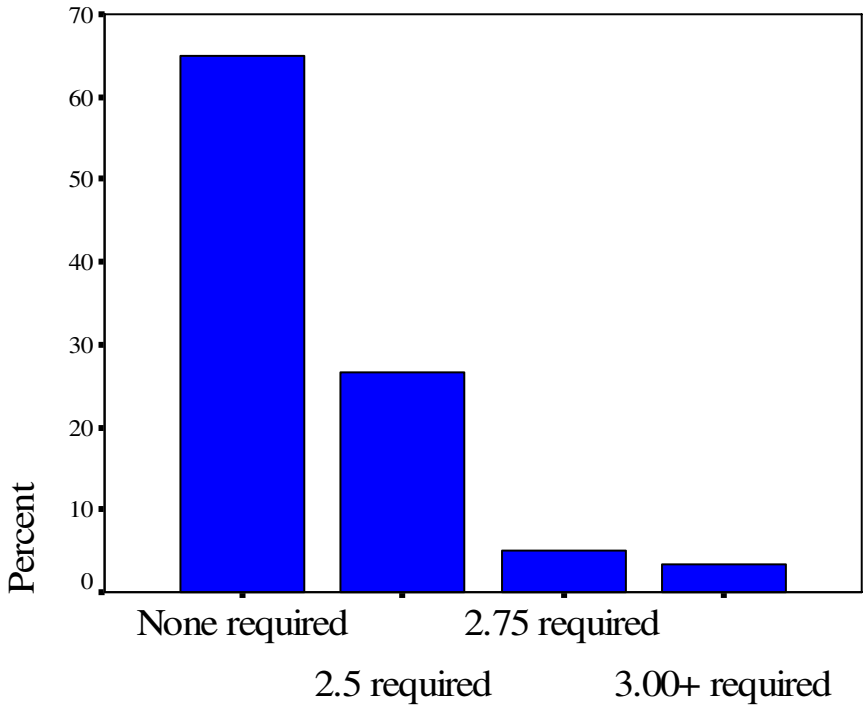

Figure 13. *GPA Requirements After NCLB*

Specific courses refers to courses required in the state in addition to the regular courses required for graduation. These courses usually have something to do with the uniqueness of the state or to special characteristics of the student population a teacher in the state may encounter. In Alaska, for instance, a course is required in Alaskan studies since a large part of Alaska is populated by Aleutians, the native Alaskans. Some states require courses in multi-culture because they have such a diverse population. Texas requires a course in Texas history.

Eleven states added specific course requirements after *NCLB*. These additional courses involve technology in the classroom or special education students in the regular education classroom (inclusion). Three of the states also added a multicultural requirement.

Table 22
Specific Courses Required After NCLB

Courses	Frequency	Percent	Cumulative Percent
none required	41	68.3	68.3
required	19	31.7	100.0
Total	60	100.0	

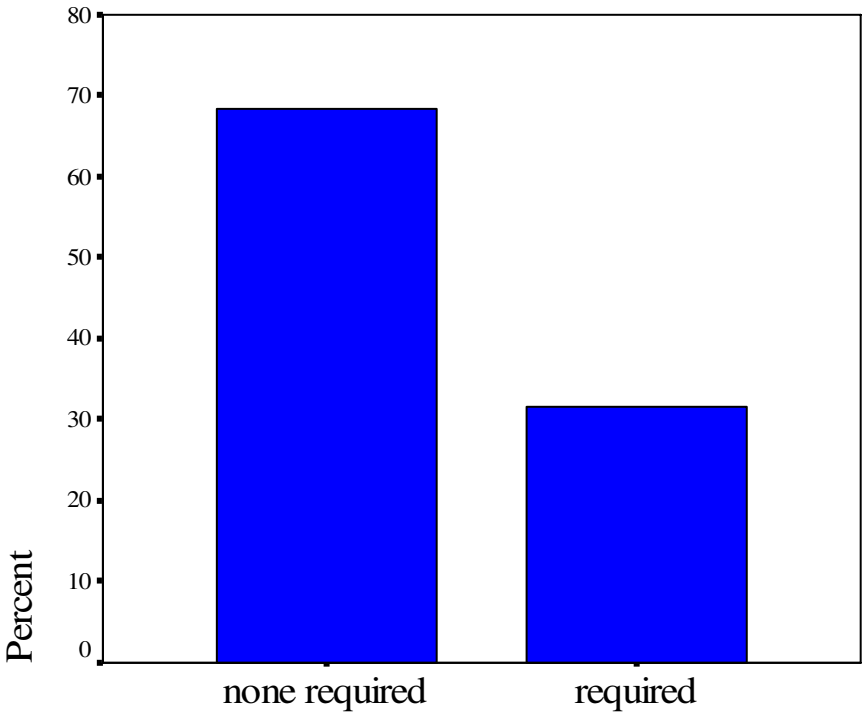

Figure 14. *Specific Courses Required After NCLB*

Prior to *NCLB* only two states did not require the completion of a teacher preparation program in order to obtain certification. Since there were only two states which did not require it a frequency table and chart were not created. After *NCLB* this changed so Table 23 shows the frequency for not requiring the completion of a teacher preparation program. The category other refers to the states where a teacher applying for certification has a choice of having completed a

teacher education program or can present a performance portfolio to be evaluated by the licensing bureau for certification.

Table 23
Teacher Preparation Program Requirement After NCLB

Teacher Preparation	Frequency	Percent	Cumulative Percent
none required	8	13.3	13.3
required	48	80.0	93.3
other	4	6.7	100.0
Total	60	100.0	

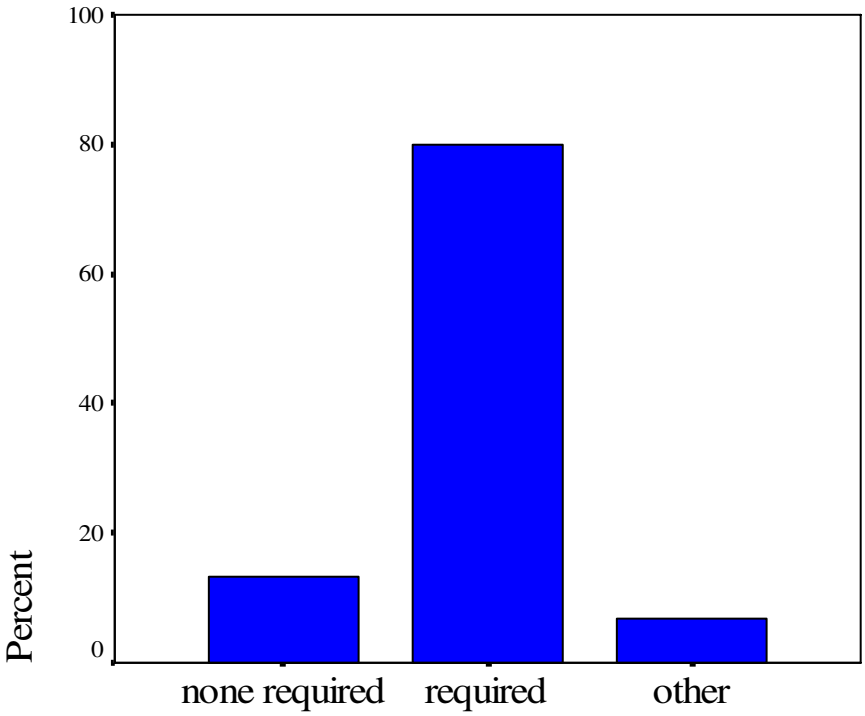

Figure 15. *Teacher Preparation Program Requirement After NCLB*

A category that did not appear at all in the information provided for requirements for certification prior to *NCLB* is that of the recency of credit. This category refers to how long ago the applicant for certification received their college credit. Several states added this requirement for certification. The term recency varied from state to state but the range was between the last five years to the last ten years. This recency requirement only applied if the person had not been

teaching during the time between acquiring the college credit and the current application for certification.

Table 24
Recency of Credit

Recency	Frequency	Percent	Cumulative Percent
not required	51	85.0	85.0
required	9	15.0	100.0
Total	60	100.0	

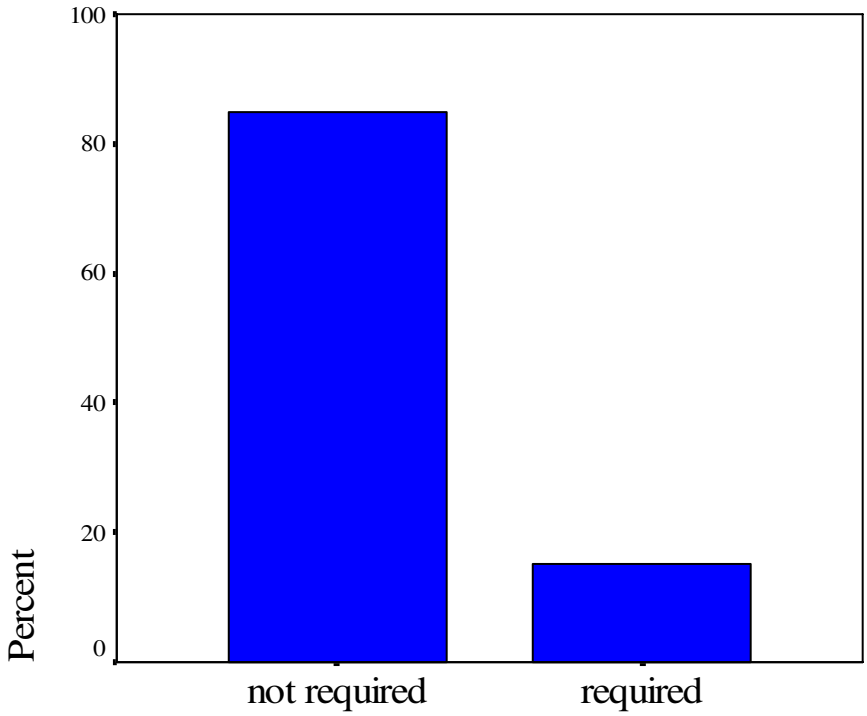

Figure 16. *Recency of Credit*

A final bar graph was constructed to show a comparison between requirements in each category before and after *NCLB*. The number of responses for after *NCLB* rose to 60 because more states allowed a person to teach without a degree so they were entered twice.

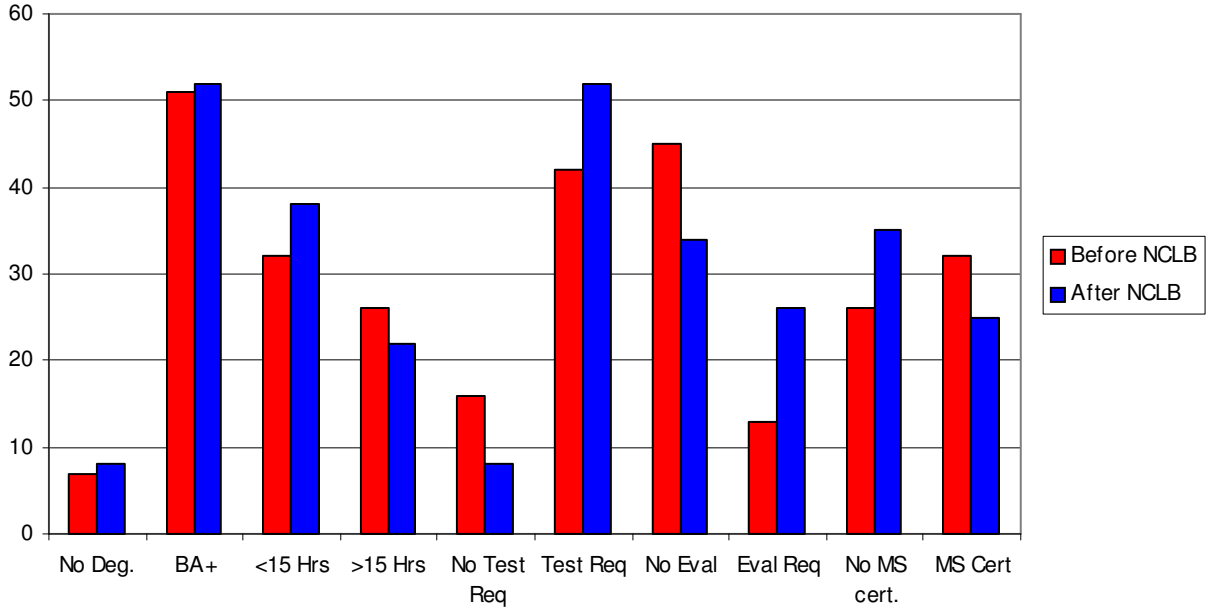

Figure 17. *Comparison of Before and After NCLB Certification Requirements #1*

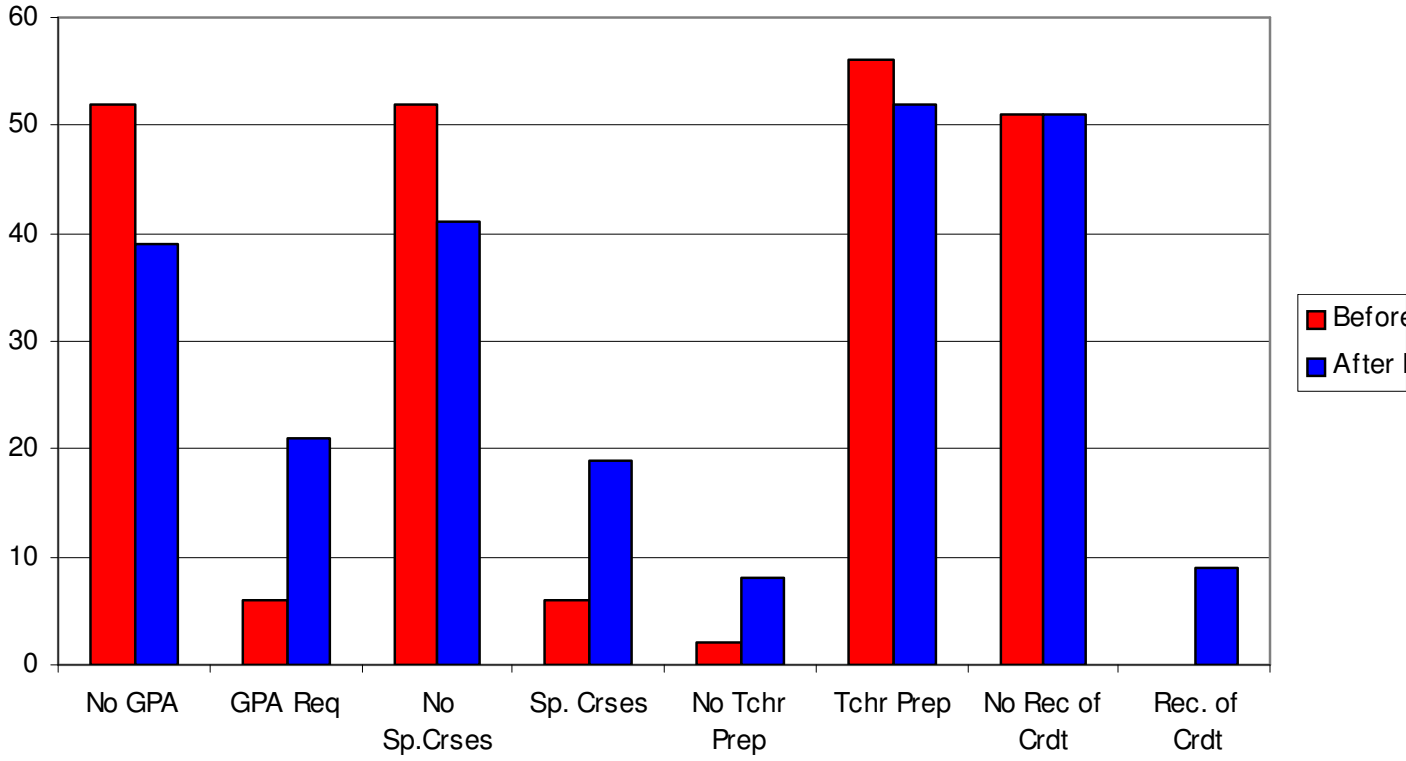

Figure 18. *Comparison of Before and After NCLB Certification Requirements #2*

An index of change table was created to show how the requirements changed in all the states after *NCLB.* The table indicates how many categories were changed in every state and how the rigor in those categories changed. For example, if there was an addition of two categories but the state deleted one requirement then this change was recorded as +2 -1=+1. In the rigor column, a point was assigned if the requirement increased in difficulty. For example, if a state did require a GPA prior to *NCLB* but after *NCLB* the GPA requirement increased this would be listed in the rigor category as a +1. However, if in this same state the number of hours in a subject decreased then it would be listed as +1-1=0. The category column and the rigor column were added to indicate an "index of change" for that state.

Table 25
Index of Change

State	Number of Categories[a]	Rigor in Categories[b]	Index of Change[c]
Alabama	+2	0	+2
Alaska	+2	+1	+3
Arizona	+1-1=0	-1	-1
Arkansas	+1-2=-1	0	-1
California	0	0	0
Colorado	-3	+1	-2
Connecticut	+1-1=0	+1	+1
Delaware	+1-1=0	+1	+1
DC	+2-1=+1	+1	+2
Florida	-4	+1	-3
Georgia	+3-1=+2	+1	+3
Hawaii	-2	-1	-3
Idaho	-1+1=0	+1-1=0	0

Table 25, Cont.

Illinois	0	0	0
Indiana	+2-1=+1	0	+1
Iowa	-3+1=-2	-1	-3
Kansas	+2-1=+1	+1	+2
Kentucky	-3+2=-1	-1	-2
Louisiana	+4-1=+3	+2	+4
Maine	+1	+1	+2
Maryland	+1-1=0	0	0
Massachusetts	+2	+1	+3
Michigan	-2	0	-2
Minnesota	+3	0	+3
Mississippi	-2+1=-1	+1	0
Missouri	+1	+1	+2
Montana	-1	-1	-2
Nebraska	+4-2=+2	+3	+5
Nevada	+1	+1	+2
New Hampshire	+2	+1	+3
New Jersey	+1	+1	+2
New Mexico	-3+1=-2	0	-2
New York	+2-1=+1	+1	+2
North Carolina	-3+2=-1	+1	0
North Dakota	+3-1=+2	+2	+4
Ohio	0	-1	-1
Oklahoma	+3-1=+2	+1	+3

Table 25, Cont.

Oregon	-2+2=0	0	0
Pennsylvania	+3-2=+1	+2	+3
Rhode Island	-2+1=-1	0	-1
South Carolina	+4-2=+2	+1	+3
South Dakota	+3	+2	+5
Tennessee	+3-2=+1	+1	+2
Texas	+1	0	+1
Utah	+4	0	+4
Vermont	+1	0	+1
Virginia	-1+1=0	0	0
Washington	+1	0	+1
West Virginia	+5-2=+3	+2	+5
Wisconsin	+3-2=+1	+2	+3
Wyoming	-3+1=-2	+1	-1
Total	+26	+29	+54

[a] Number of types of requirements that changed after NCLB

[b] Relative rigor of requirements before and after NCLB

[c] Number of categories + rigor = Index of change

The mode for changes in the number of categories is two. Eleven states had a +2 change in categories. Utah had the greatest change adding categories for a score of +4, and Florida reduced the number of categories for a score of -4. The range for the index of change was -3 to +5. There were nine states with an index of change of two and nine states with an index of

change of three. In all 30 states became more rigorous after *NCLB* , eight remained the same, and 13 became less rigorous. The median of change was +1.06.

Research Question 2

What percentage of middle school teachers in each state are non-certified, or working with a one year certificate, or teaching out of their field, or are teaching on waivers in the middle school?

Response Rate

All 50 states and the District of Columbia responded to survey Question five. Only 38 of them filled in all parts of the question. This gave a total response rate of 72%. The other 13 states only answered the second, third, and fourth, parts of Question five. It is unknown if the omission of parts one and five meant these states had no non-certified teachers or teachers with less than 12 hours in the subject they are teaching, the respondents did not know the percentages, or they just did not answer them.

Only 15 states and the District of Columbia responded to Question six of the survey. These 16 actually only answered half of the question. The second part of the question asked what the requirements were for each of the not fully certified certificates and how these certificates will be addressed for *NCLB.* This gave a response rate of only 31% for this question. Other states may have different certifications but they did not indicate it in their responses to Question six.

Results for Research Question 2

The data to answer research Question two came from Questions five and six of the survey. Question five originally asked how many teachers were teaching out of their field but was changed to teaching with less than 12 hours in the subject they are teaching. Based on the confusion from the field test, the item was changed to "teaching with less than 12 hours" because

the research indicated that to be the least number of credit hours in any state which would constitute a minor.

Question 6, regarding temporary certification also was added after the initial responses, because the data reported to the federal government on teacher qualifications allows states to not include teachers as "temporary" or "provisional" if they are pursuing alternate routes to certification or those who are long-term substitutes as defined by the state. This particular exclusion allowed states to employ other teachers and classify them as "emergency certificates." These teachers are not included in the waivers or other categories since they do not expect to be rehired the following year unless they enroll in teacher preparation programs. Also, these teachers do not receive the same pay as certified teachers and thus can be considered "long-term substitutes" in the federal reporting. Not to include this new question could underestimate the number of teachers typically thought of as "not certified."

Only 16 states reported having any other types of temporary, provisional, or emergency certificates. Alaska, Georgia, Hawaii, Washington, and Wisconsin reported having an emergency certificate which allows a person to teach with a Bachelor's degree only. It is only valid if the employing district cannot find any certificated teachers for the position. California, Kentucky, New Jersey, Oklahoma, and Tennessee have certificates which allow a person to teach for one year in lieu of their student teaching. Upon successful completion of that year the teacher is issued a standard license if all other requirements have been met. The District of Columbia and Nebraska issue provisional certificates. Florida issues a statement of eligibility which allows a person to be hired by a district in a shortage area and then apply for a certificate when all requirements are met. Wyoming issues a permit to teach in any area for which a certificated person cannot be found but this permit does not even require a bachelor's degree only 60 hours

of coursework is needed. Maine issues a targeted need certificate in shortage areas but it does require a degree in that subject.

A breakdown of state percentages for each category is presented in Table 26. The following paragraphs explain how each category is defined in that table. The non-certified category refers to teachers who do not have a major in the subject nor have they applied for certification. These may include teachers who are certified in another state which does not have a reciprocal agreement with the current state.

One-year certificates are good for only one year and are non-renewable. These are issued if the teacher is missing only one portion of the certification requirements and they are employed by a school in the state. The most common requirements are passing scores on Praxis, NTE, a state test, or state evaluation.

Temporary certificates are issued to teachers enrolled in an alternative teacher education program. These are renewable for a limited number of years. The amount of time these are renewable ranges from one to five years.

Waivers are issued to teachers who are employed by a school system but who have failed to meet all the requirements for certification. These are also issued to teachers who had a one year certificate the previous year but still did not satisfy the certification requirement they were missing. A waiver may be issued to someone in order to fill a vacancy where no qualified teacher can be found. The only requirement for a waiver is to have a degree. This differs from the non-certified because these teachers are employed in the district and the district applies for the waiver.

Table 26 below shows the percentage of middle school teachers who are non-certified, hold a one-year certificate, a temporary certificate, a waiver, teaching out of their field, and

teaching on an emergency certificate. If a column is left blank it means the respondent did not answer that part of the survey. It does not necessarily mean there are no teachers who fall into these categories. The out of field category may contain teachers who fall into one of the other 4 categories as well so they may be double counted. This also affects the total column as well as the national percentage. For states reporting the data the non-certified category ranges from .8% in South Dakota to a high of 18.1% in Mississippi. One year certificates range from a low of 0% in Washington, D.C. to a high of 18% in Delaware. Temporary certificates range from 0% in New Mexico to 18% in Washington D.C., the Waiver category has a low of 0% in Nevada to a high of 13% in Georgia, and the Out of Field category ranges from 4% in North Carolina to a high of 40% in Idaho. The total percentages of not fully certified ranges from a low of 4% in Wyoming and Utah to a high of 74% in Mississippi.

Table 26
Percentage Not Fully Certified

State	Non-certified	One Yr Cert.	Temp. Cert.	Waiver	Out of Field	Total
Alabama	11.00%	11.0%	2.0%	<1%	12%	36%
Alaska		7.0%	1.0%	2.0%		10%
Arizona	12.80%	4.0%	3.0%	3.0%	35%	56%
Arkansas	5.60%	11.0%	7.0%	3.0%	23%	50%
California	6.80%	9.0%	11.0%	7.0%	17%	50%
Colorado	10.50%	12.0%	2.0%	6.0%	15%	46%
Connecticut	10.80%	7.0%	3.0%	1.0%	13%	35%
Delaware		18.0%	2.0%	9.0%		29%
D.C.		0.0%	18.0%	1.0%	35%	54%
Florida	9.60%	9.0%	3.0%	7.0%	15%	45%
Georgia	8.00%	2.0%	4.0%	13.0%	37%	64%
Hawaii		2.0%	2.0%	4.0%	19%	27%
Idaho	5.80%	6.0%	1.0%	4.0%	40%	57%
Illinois	5.90%	9.0%	5.0%	3.0%	31%	54%
Indiana	0.90%	11.0%	3.0%	2.0%	7%	24%
Iowa	12.80%	17.0%	3.0%	0.0%	27%	60%
Kansas	10.71%	12.0%	7.0%	<1%	25%	55%
Kentucky	5.50%	8.0%	2.0%	5.0%	23%	44%
Louisiana	9.10%	12.0%	6.0%	8.0%	33%	68%

Table 26 Cont.

Maine	2.50%	9.0%	3.0%	7.0%	11%	34%
Maryland		4.0%	5.0%	10.0%		19%
Massachusetts	3.70%	5.0%	7.0%	3.0%	25%	44%
Michigan	2.90%	4.0%	3.0%	2.0%	15%	27%
Minnesota	4.00%	1.0%	9.0%	6.0%	15%	35%
Mississippi	18.10%	7.0%	12.0%	0.0%	37%	74%
Missouri	7.30%	4.0%	3.0%	2.0%	27%	43%
Montana	2.80%	2.0%	1.0%	<1%	32%	38%
Nebraska	3.30%	3.0%	2.0%	<1%	17%	23%
Nevada		7.0%	2.0%	0.0%		9%
New Hampshire		11.0%	1.0%	<1%		12%
New Jersey	2.50%	16.0%	9.0%	3.0%	24%	55%
New Mexico		12.0%	0.0%	7.0%		19%
New York	2.50%	6.0%	6.0%	7.0%	7%	29%
North Carolina	3.50%	11.0%	6.0%	8.0%	4%	33%
North Dakota	2.00%	2.0%	3.0%	2.0%	24%	33%
Ohio	8.70%	4.0%	2.0%	1.0%	27%	43%
Oklahoma	4.30%	3.0%	2.0%	<1%	37%	46%
Oregon	4.20%	4.0%	5.0%	2.0%	37%	52%
Pennsylvania	6.60%	4.0%	3.0%	2.0%	27%	43%
Rhode Island		12.0%	7.0%	3.0%		22%
South Carolina	15.00%	4.0%	4.0%	7.0%	25%	55%
South Dakota	0.80%	4.0%	2.0%	<1%	25%	32%
Tennessee	1.00%	3.0%	2.0%	1.5%	28%	36%
Texas	4.70%	6.0%	3.0%	9.0%	30%	53%
Utah		2.0%	2.0%	0.0%		4%
Vermont		15.0%	4.0%	3.0%		22%
Virginia	11.10%	7.0%	2.0%	7.0%	29%	56%
Washington	1.20%	4.0%	3.0%	2.0%	39%	49%
West Virginia		6.0%	1.0%	6.0%		13%
Wisconsin	6.60%	3.0%	2.0%	2.0%	22%	36%
Wyoming		2.0%	1.0%	1.0%		4%
National %	6.45	6.9%	4.0%	3.5%	25.5%	46%

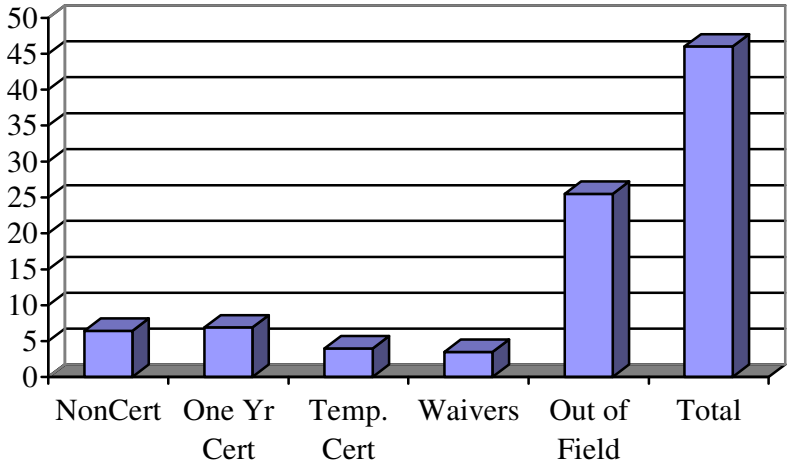

Figure 19. *National Percentages of Not Fully Certified*

Research Question 3

What is the definition of "highly qualified" teacher in each state?

Response Rate

All 50 states and DC responded to Questions 3 and 4 of the survey. However the type of responses differed. Only five states actually typed an answer to these questions. Forty-two states and D.C. sent copies of their requirements to me. These appeared to be what the states gave to their own teachers to determine if they were "highly qualified". Three states responded via e-mail to this question. Overall this yielded a 100% response rate.

Results for Research Question 3

The data to answer Research Question 3 came from Questions 3 and 4 of the survey. Question 3 referred to new teachers. Question 4 referred to veteran teachers.

After analyzing the responses to Question 3 it was determined that all fifty states and D.C.have the same requirements for "new" teachers. A new teacher must have a degree, be fully certified and show subject matter competency. The subject matter competency may be demonstrated by having a major in the subject they teach, passing a subject matter test in the

subject they teach, a graduate degree in the subject, or, in some cases, a minor is sufficient to show subject matter knowledge. This does not mean that all competency requirements are completely equal since a major can range from 24 to 36 credit hours in a subject and a minor can range from 12 to 24 hours.

The real differences become evident in the HOUSSE requirements for each state. Appendix D shows the HOUSSE requirements for all 50 states and the District of Columbia. The majority of states use a point system to determine if a teacher is "highly qualified" but the value of the points varies across states, areas where points can be earned varies, and the total number of points required also varies. Other states claim if a teacher is fully certified in their state then they are "highly qualified," and some states use some sort of a performance evaluation, either through observations, self-assessment, or portfolios. Seven states claim a teacher is "highly qualified" if he or she passes either a state or district evaluation. Four states indicated if teachers are fully certified in the grade level they teach then they are "highly qualified." Two states use student achievement data to indicate a teacher is "highly qualified." Two states use performance portfolios to demonstrate a teacher is "highly qualified" and one state allows a teacher to complete a self-assessment to claim being "highly qualified."

The column labeled points indicates the number of points required by the state for a teacher to be "highly qualified." If there is no number in the column then it means that state does not use a point system to determine if a teacher is highly qualified.

Table 27
Points Required for Highly Qualified Status

Points	Frequency	Percent	Cumulative Percent
Doesn't use points	16	31.4	31.4
1-30 points	7	13.7	45.1
31-90 pts	4	7.8	52.9
91-100 points	22	43.1	96.1
101+ points	2	3.9	100.0
Total	51	100.0	

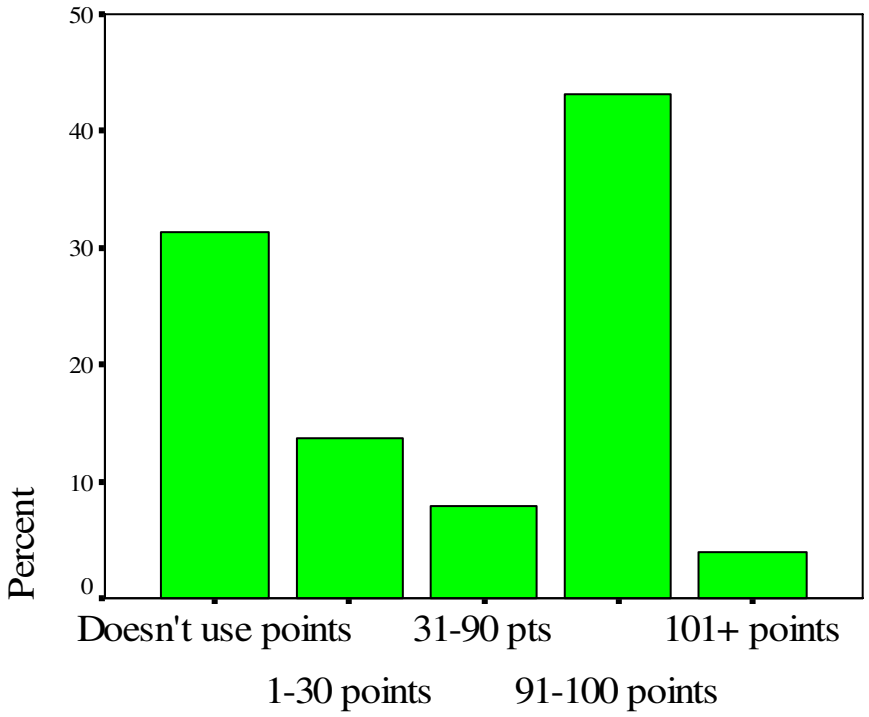

Figure 20. *Points Required for Highly Qualified Status*

The item Profession hours refers to courses in pedagogy which can count for points toward "highly qualified" status. These courses can be methods courses for teaching a particular

course, courses in assessments, or courses in classroom management. These courses cannot be educational psychology, sociology or history of education, or anything similar to these areas.

Table 28
Professional Hours toward HOUSSE Requirements

Professional Hours	Frequency	Percent	Cumulative Percent
Not allowed	40	78.4	78.4
1-3/hour	6	11.8	90.2
4-6/ hour	2	3.9	94.1
7+/hour	3	5.9	100.0
Total	51	100.0	

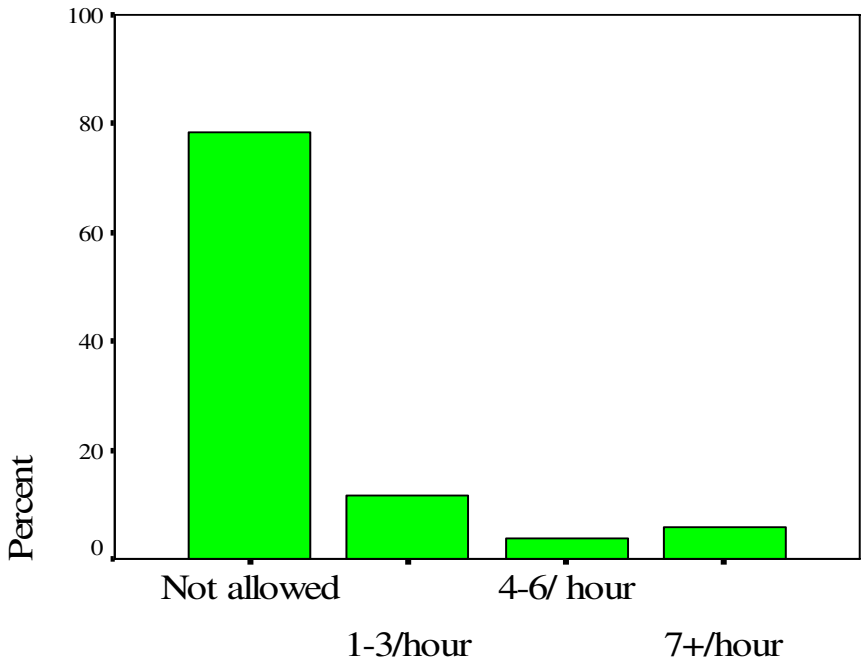

Figure 21. *Professional Hours toward HOUSSE Requirements*

The column labeled Cont. Courses refers to courses only in the content area which the teacher teaches. The points awarded per credit hour range from less than one in New Jersey to a high of 15 per credit hour in Louisiana, Massachusetts, and Nevada. Oregon requires 16 hours in content plus three or more years of experience to be “highly qualified”. Massachusetts and North

Dakota give more points per graduate credit hour than they do for undergraduate hours. In Massachusetts a teacher could take only six hours of graduate work in content and be considered "highly qualified." In Michigan a teacher only needs six hours of undergraduate credit in the content to be considered "highly qualified."

Table 29
Points per Content Hour toward Meeting HOUSSE Requirements

Points per Content Hr	Frequency	Percent	Cumulative Percent
Not allowed	22	43.1	43.1
1-3 credits per hour	16	31.4	74.5
4-6 credits per hour	7	13.7	88.2
7+ credits per hour	6	11.8	100.0
Total	51	100.0	

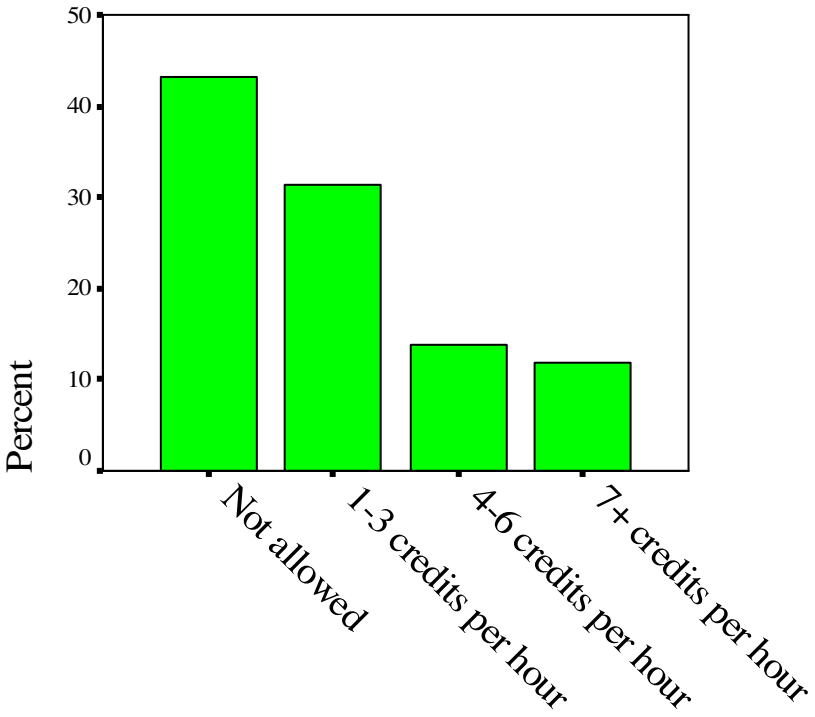

Figure 22. *Points per Content Hour toward Meeting HOUSSE Requirements*

The column Prov. Dev. refers to Professional Development. This can be content specific but it also can include classroom management, cooperative learning, alternative assessment, portfolio design, and any other similar program that directly impacts the learning of students. These professional development activities were awarded points based on either contact hours or on each separate activity. The value of each professional development experience varies from one per year in Oklahoma to 15 per contact hour in Nevada.

Table 30
Professional Development Points toward Meeting HOUSSE Requirements

Professional Development	Frequency	Percent	Cumulative Percent
not allowed	23	45.1	45.1
Less than 1/hr	8	15.7	60.8
1-3/hr	9	17.6	78.4
1-3/activity	5	9.8	88.2
4+/activity	3	5.9	94.1
4+/hour	3	5.9	100.0
Total	51	100.0	

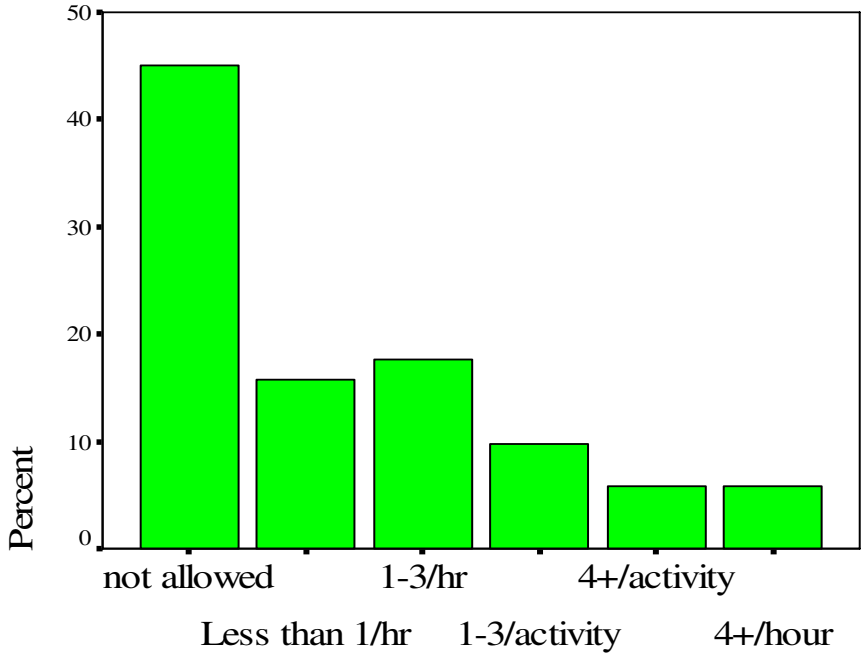

Figure 23. *Professional Development Points toward Meeting HOUSSE Requirements*

Prof. Activities means Professional Activities. These activities do not have to be something that impacts the learning in the classroom. Some of these include department head, curriculum developer, serving on a local or state committee, judging state or local fairs (science or social studies), attendance at regional, state, or national professional conferences, member of national organizations, presenter at state or regional conferences, and other activities similar to these. The value of these activities ranges from a low of 2 per year in Indiana to 15 per hour in Nevada.

Table 31
Professional Activities toward Meeting HOUSSE Requirements

Professional Activities	Frequency	Percent	Cumulative Percent
Not allowed	28	54.9	54.9
1-3/activity	8	15.7	70.6
4-9/activity	12	23.5	94.1
10+/activity	3	5.9	100.0
Total	51	100.0	

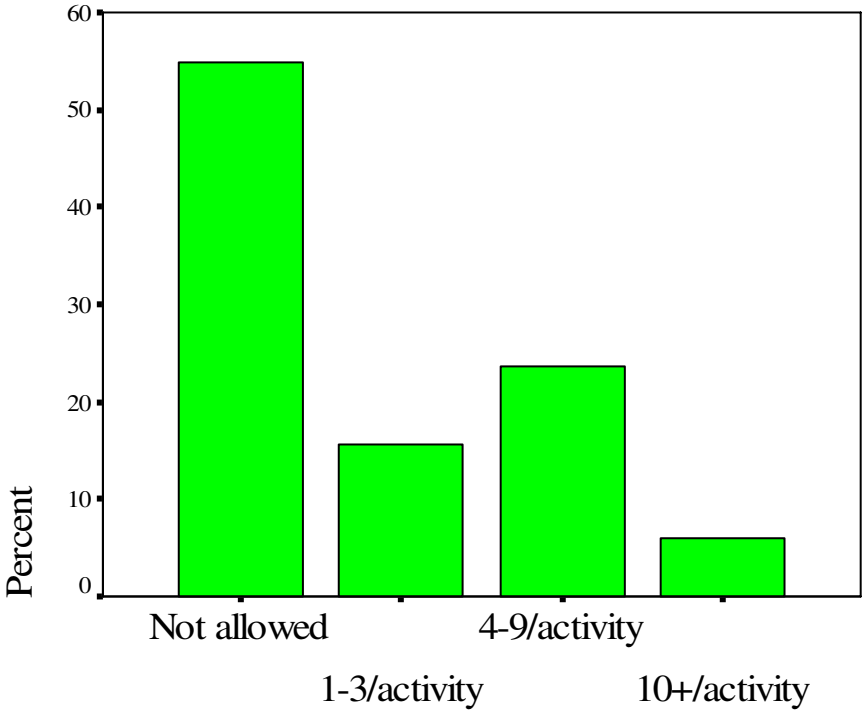

Figure 24. *Professional Activities toward Meeting HOUSSE Requirements*

Experience in content is credit given for years of teaching experience in the content for which the teacher is seeking to be "highly qualified". Some states put a limit on how old this experience can be and all states who use this put a limit on how many points a teacher can gain through this method. Alabama allows teachers to go as far back as 20 years to gain experience points. The point value ranges from one per year in New Jersey to 18 per year in Arkansas. A teacher in Arkansas can be considered "highly qualified" based on years of teaching experience alone.

Table 32
Experience toward Meeting HOUSSE Requirements

Experience	Frequency	Percent	Cumulative Percent
Not allowed	25	49.0	49.0
1-3/year	9	17.6	66.7
4-6/yr	7	13.7	80.4
7+/yr	10	19.6	100.0
Total	51	100.0	

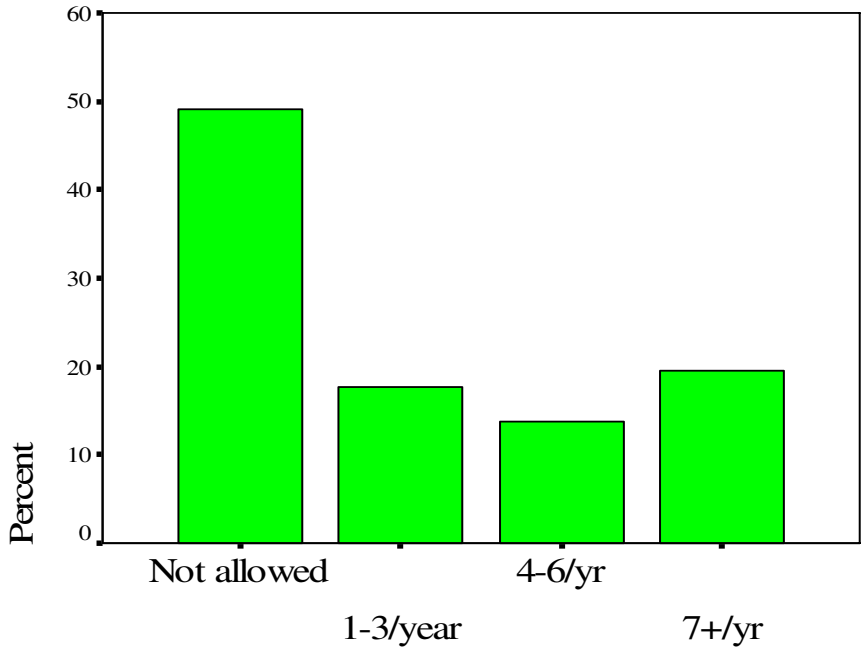

Figure 25. *Experience toward Meeting HOUSSE Requirements*

Recognition refers to awards or recognition the teacher has received during their career. These recognitions can be teacher of the year for the state or the district; publication of an article in a regional, state, or national journal; Milliken Family foundation National Educator Award; outstanding educator awards from content professional organizations; college course instructor; or other similar awards or recognitions. The point value ranges from two per award to 30 per award.

Table 33
Recognition and Awards toward Meeting HOUSSE Requirements

Awards	Frequency	Percent	Cumulative Percent
Not allowed	33	64.7	64.7
1-3/award	5	9.8	74.5
4-6/award	7	13.7	88.2
7+/award	6	11.8	100.0
Total	51	100.0	

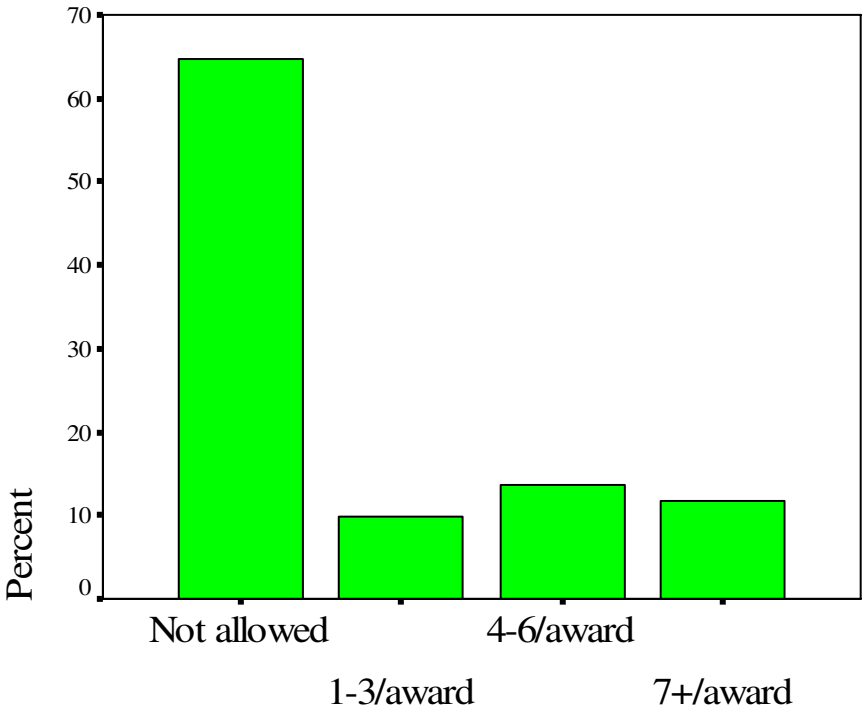

Figure 26. *Recognition and Awards toward Meeting HOUSSE Requirements*

As with new teachers some states are saying an advanced degree will allow veteran teachers to be considered "highly qualified." Alaska gives ten points per endorsement, per minor, and per graduate degree. Georgia awards ten points for a Master's degree and ten points for a PhD. Massachusetts awards 45 points for a thesis and 90 for a dissertation. All of this information and more is found under the Subject Area Points heading.

Table 34
Subject Area Points toward Meeting HOUSSE Requirements

Subject Area Points	Frequency	Percent	Cumulative Percent
None Given	40	78.4	78.4
0-10/advanced degree	2	3.9	82.4
11-50/advanced degree	3	5.9	88.2
51+/advanced degree	6	11.8	100.0
Total	51	100.0	

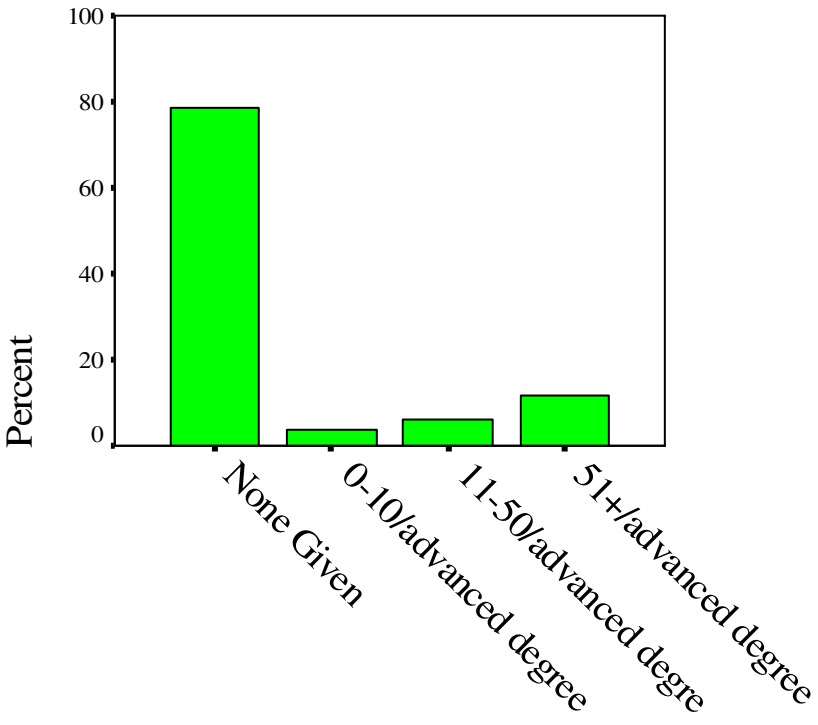

Figure 27. *Subject Area Points toward Meeting HOUSSE Requirements*

The category labeled Other contains ways to earn points that do not fit into any of the other categories and which are limited to just a few states. These range from student achievement data to speaking a language other than English.

Table 35
Other Criteria for Points toward Meeting HOUSSE Requirements

Other	Frequency	Percent	Cumulative Percent
No points given	29	56.9	56.9
Points for subject hours	5	9.8	66.7
foreign language	1	2.0	68.6
Portfolios	2	3.9	72.5
Student achievement	4	7.8	80.4
Teacher mentor	2	3.9	84.3
Fully certified	5	9.8	94.1
self-assessment	1	2.0	96.1
Content standards	1	2.0	98.0
Tutoring	1	2.0	100.0
Total	51	100.0	

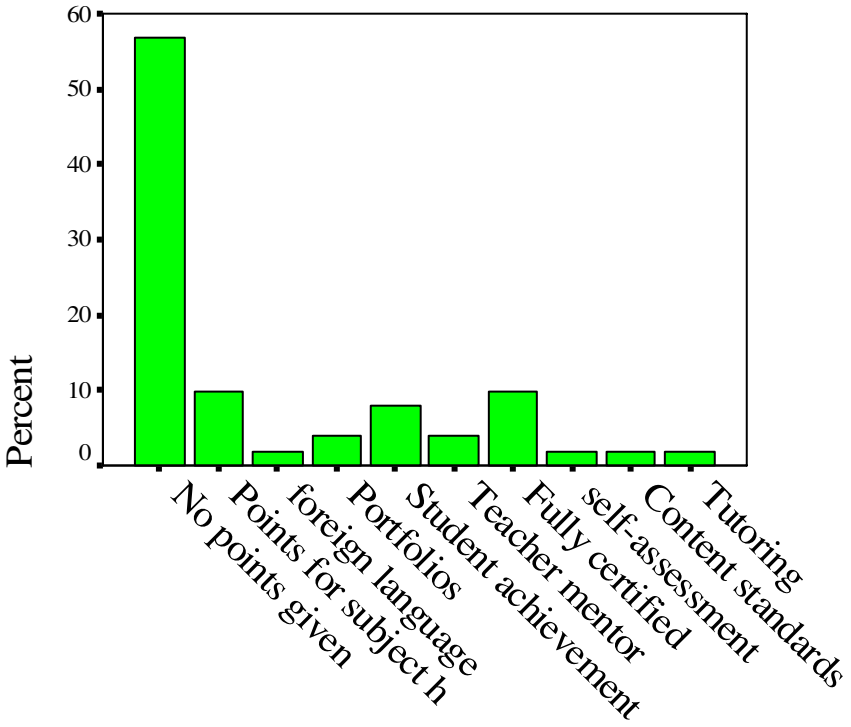

Figure 28 . *Other Criteria for Points toward Meeting HOUSSE Requirements*

Evaluation refers to either state or district evaluations which allow a teacher to be deemed "highly qualified". New Mexico requires two years of successful evaluations, 16 hours in the content area, five years experience, and observation by a local panel before a veteran teacher can be considered "highly qualified".

Table 36
Evaluation Points toward Meeting HOUSSE Requirements

Evaluation	Frequency	Percent	Cumulative Percent
No Points	44	86.3	86.3
Successful eval=highly qualified	7	13.7	100.0
Total	51	100.0	

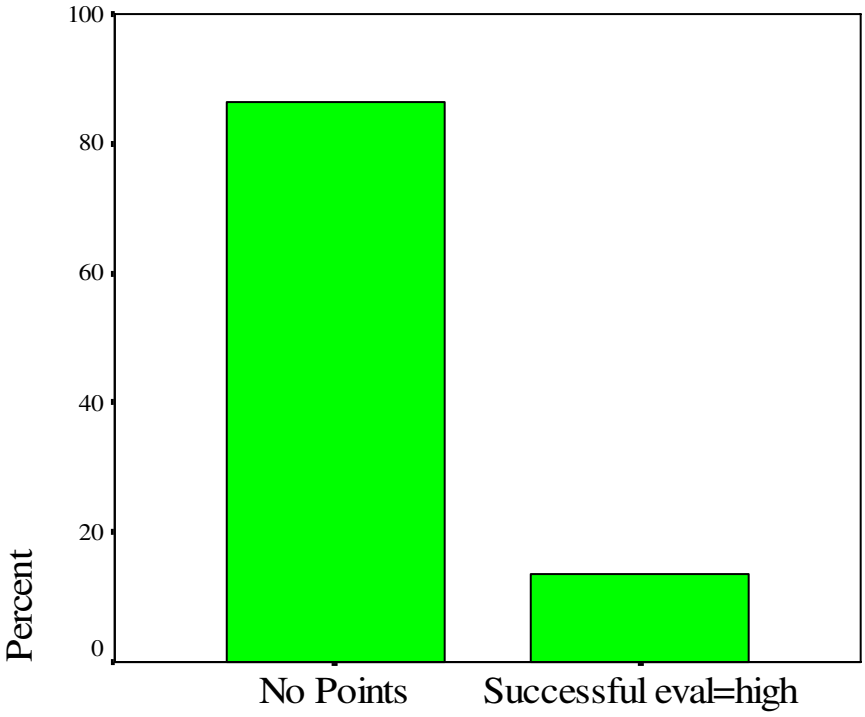

Figure 29. *Evaluation Points toward Meeting HOUSSE Requirements*

Research Question 4

What percentage of the current middle school teachers are certified but not highly qualified, are certified and highly qualified, or are neither highly qualified nor certified?

Response Rate

The response rate for Questions 5 and 6 were discussed previously. The final response rate for Question 8 was only 55%. According to 17 of the respondents who did not answer Question 8 this was simply because they did not have the data available.

A combination of data from Questions 5, 6, and 8 were used to answer this research question. Question 8, what percentage of your middle school teachers are certified but not "highly qualified", provided the data for the first part of the question. Questions 5 and 6 provided the data for the third part of this research question. The percentage of teachers who are certified and "highly qualified" was derived by adding the percentages from parts one and three of the question and then subtracting from 100%. A teacher would fall into only one of these categories and the total of all three categories gives me 100% of the teachers. This percentage will be constantly changing as more teachers in every state satisfy the HOUSSE requirements for veteran teachers. All of this data is based on information from the 2003-2004 school year. The data is presented in Table 37.

Twenty-six states and the District of Columbia did not answer Question 8 of the survey. I contacted these certification offices by phone as soon as I received the surveys. Sixteen of the states responded that they had not collected HOUSSE data yet to determine if their certified teachers were "highly qualified" or not. These states assured me that as soon as this data was available it would be sent to me, but they did not expect to have it before the end of the 2004-2005 school year. Four states indicated the data had just been received in their offices and would

be sending it within two weeks. One state indicated their HOUSSE plan had been rejected by the Department of Education and thus would have to recalculate these figures based on the new criteria established. Six other states directed me to a different office to obtain the information. These six offices required me to resubmit my request to them. These requests were sent at the beginning of February. An e-mail request was sent in mid February to the 11 states who had indicated they would send the missing data. Of those 11, four sent the missing data in time to be included in this report. If a state did not respond to Question 8 of the survey then the data only from Questions 5 and 6 were used and subtracted from 100% to calculate the percentage who were certified and "highly qualified." This most likely paints a rosier picture than is actually true, but it does indicate a part of the problem. A national percentage was also calculated using the states' percentages.

Results for Research Question 4

If the "neither" category and the certified but not "highly qualified" category are added then you have the percentage of teachers in a state who are not "highly qualified" in the middle school. This percentage differs from what many states are reporting because their reports do not include all of the teachers working on a temporary certificate, with waivers, with a one-year certificate, or on an emergency certificate even though none of these are "highly qualified" since to be "highly qualified" you must first be fully certified. Not included in these counts are teachers who are teaching out of their field as they may actually be certified and "highly qualified" in their field. The possibility also exists that these teachers are not "highly qualified" in their field, but since this is unknown it is not included in the table.

Table 37 was analyzed by category for the range and median. The "Neither" category ranged from 4 to 37 percent. The median for the category was 19 percent. The certified but not

“highly qualified” category had a range of .7 to 13.6 percent. Certified and “highly qualified” ranged from 52.1 to 96 percent and had a median of 78 percent.

Table 37
Certified but not “highly qualified”, Certified & “highly qualified” or Neither

State	Neither	Certified but not "highly qualified"	Certified & "highly qualified”
Alabama	14.0%	2.1%	83.9
Alaska	10.0%		90
Arizona	21.0%	5.9%	73.1
Arkansas	27.0%		73
California	33.0%	8.0%	59
Colorado	31.0%	7.5%	52.5
Connecticut	22.0%		78
Delaware	29.0%		71
D.C.	19.0%		81
Florida	30.0%	13.6%	52.4
Georgia	27.0%	9.8%	63.2
Hawaii	9.0%	11.0%	80
Idaho	17.0%		83
Illinois	23.0%	1.7%	75.3
Indiana	17.0%	5.7%	77.3
Iowa	23.0%		77
Kansas	30.0%	9.1%	60.9
Kentucky	21.0%	9.2%	69.8
Louisiana	35.0%	12.9%	52.1
Maine	23.0%		77
Maryland	19.0%		81
Massachusetts	19.0%	8.9%	72.1
Michigan	8.0%	7.4%	84.6
Minnesota	20.0%	4.0%	76
Mississippi	37.0%	3.2%	60.8
Missouri	16.0%	5.0%	79
Montana	6.0%	0.7%	92.3
Nebraska	6.0%	10.0%	84
Nevada	9.0%		91
New Hampshire	12.0%		88
New Jersey	31.0%		69
New Mexico	19.0%	10.0%	71
New York	22.0%	9.9%	68.1
North Carolina	29.0%	7.2%	63.8
North Dakota	11.0%		89

Table 37, Cont

Ohio	16.0%	7.5%	76.5
Oklahoma	9.0%	7.2%	83.8
Oregon	15.0%		85
Pennsylvania	16.0%	6.2%	77.8
Rhode Island	22.0%		78
South Carolina	30.0%	2.3%	67.7
South Dakota	7.0%	7.3%	85.7
Tennessee	8.0%	8.5%	83.5
Texas	23.0%	13.3%	63.7
Utah	4.0%		96
Vermont	22.0%		78
Virginia	27.0%	7.0%	66
Washington	10.0%	4.7%	85.3
West Virginia	13.0%		87
Wisconsin	14.0%		86
Wyoming	4.0%		96
National %	19.0%	7.3%	76.6%

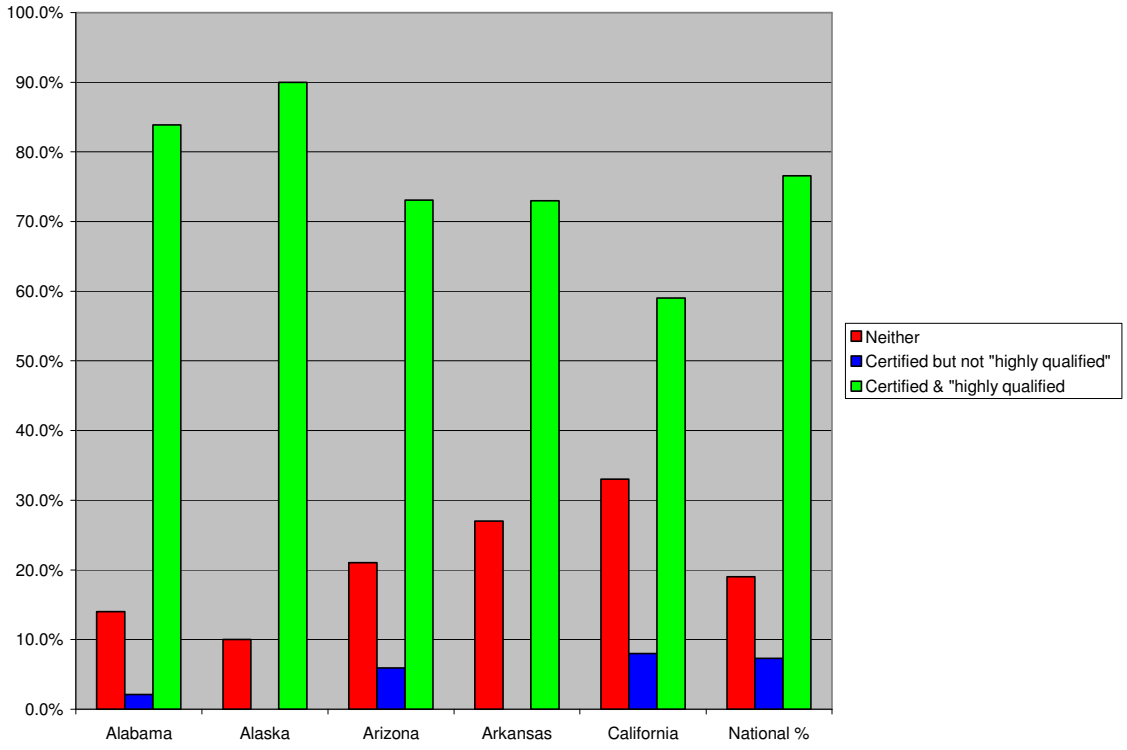

Figure 30. *Alabama-California compared to National %*

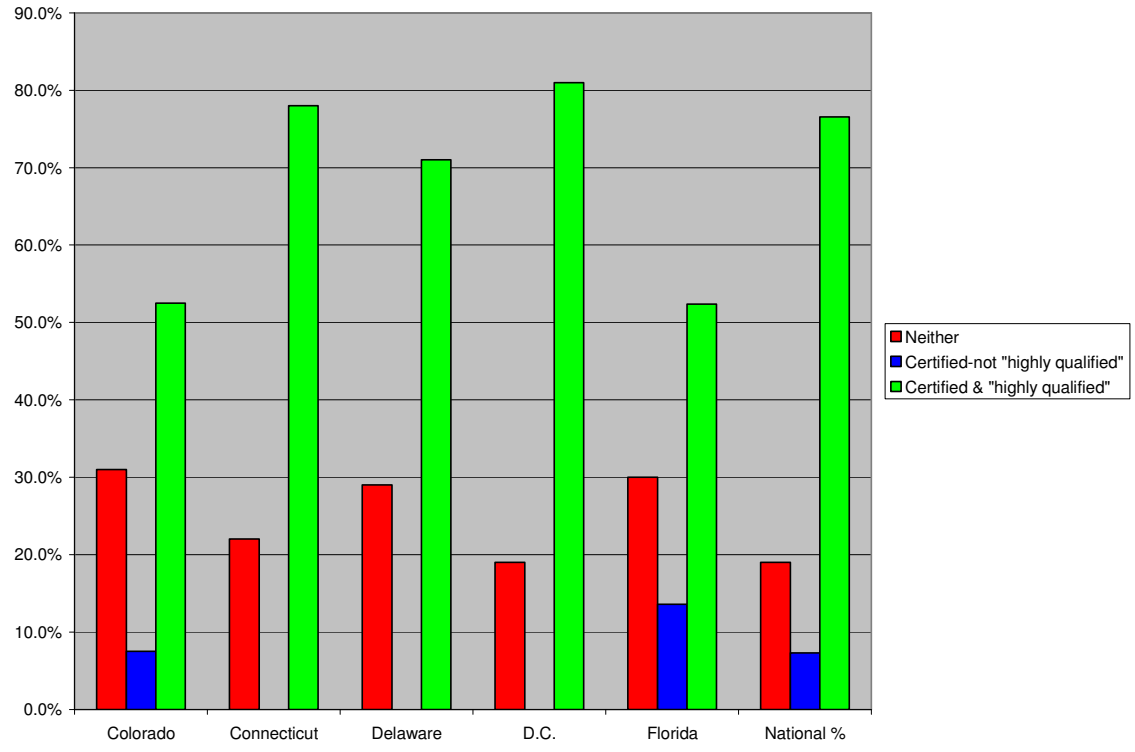

Figure 31. *Colorado – Florida compared to National %*

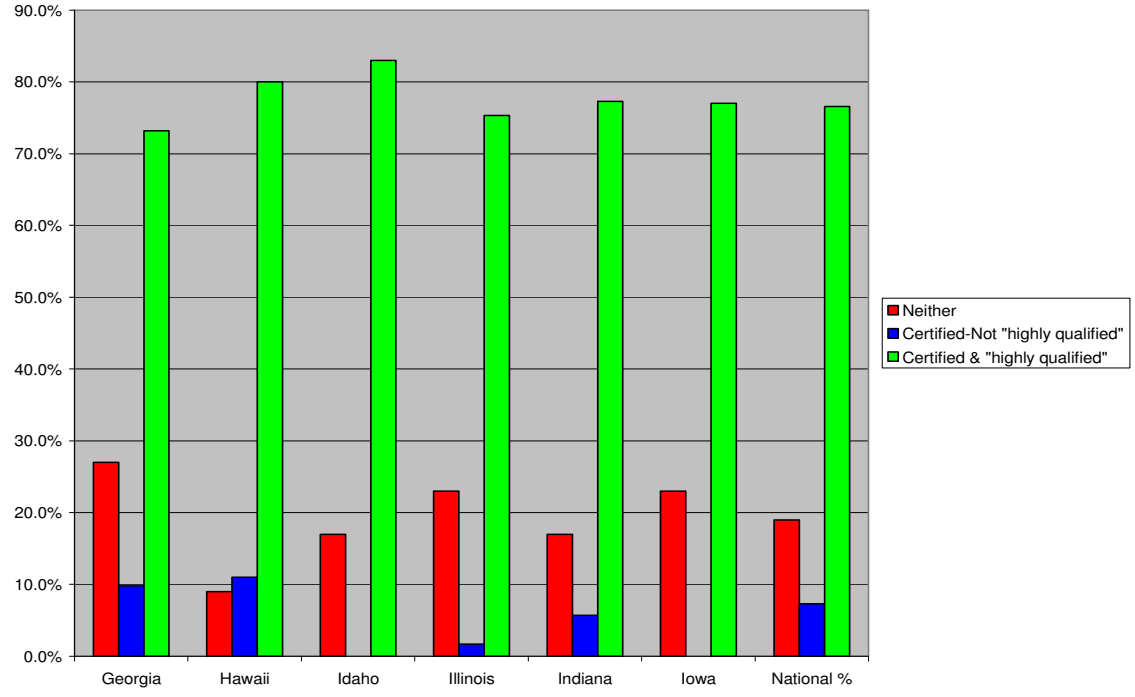

Figure 32. *Georgia – Iowa compared to National %*

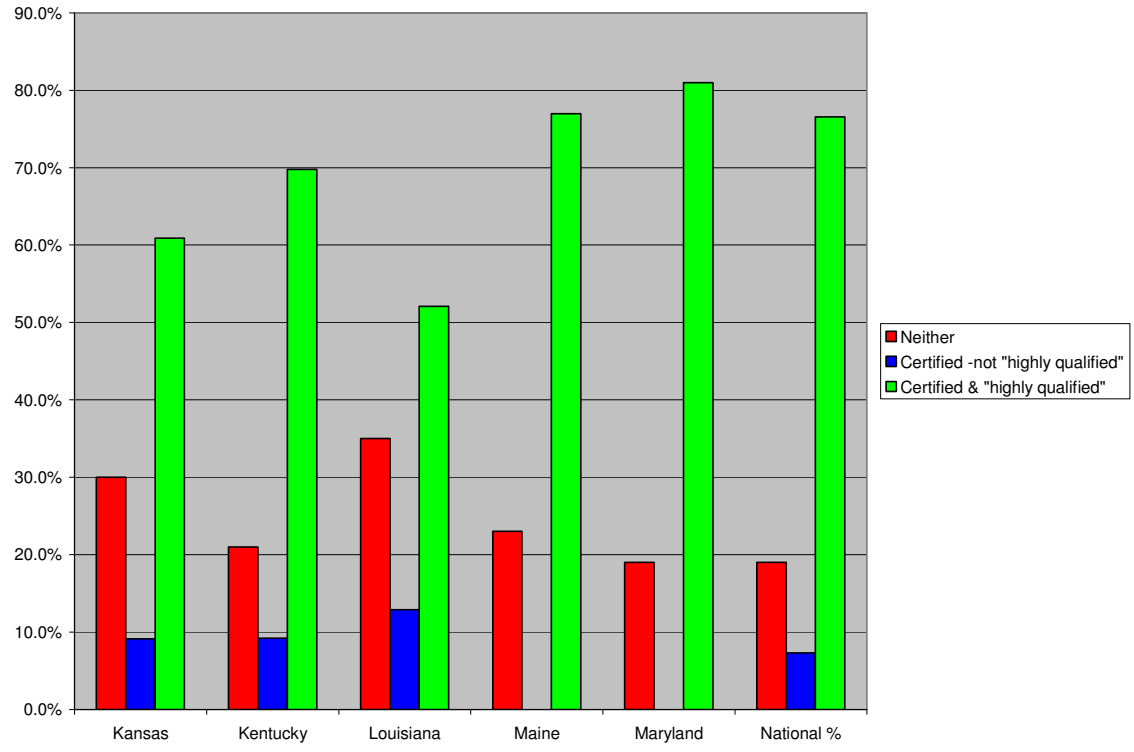

Figure 33. *Kansas – Maryland compared to National%*

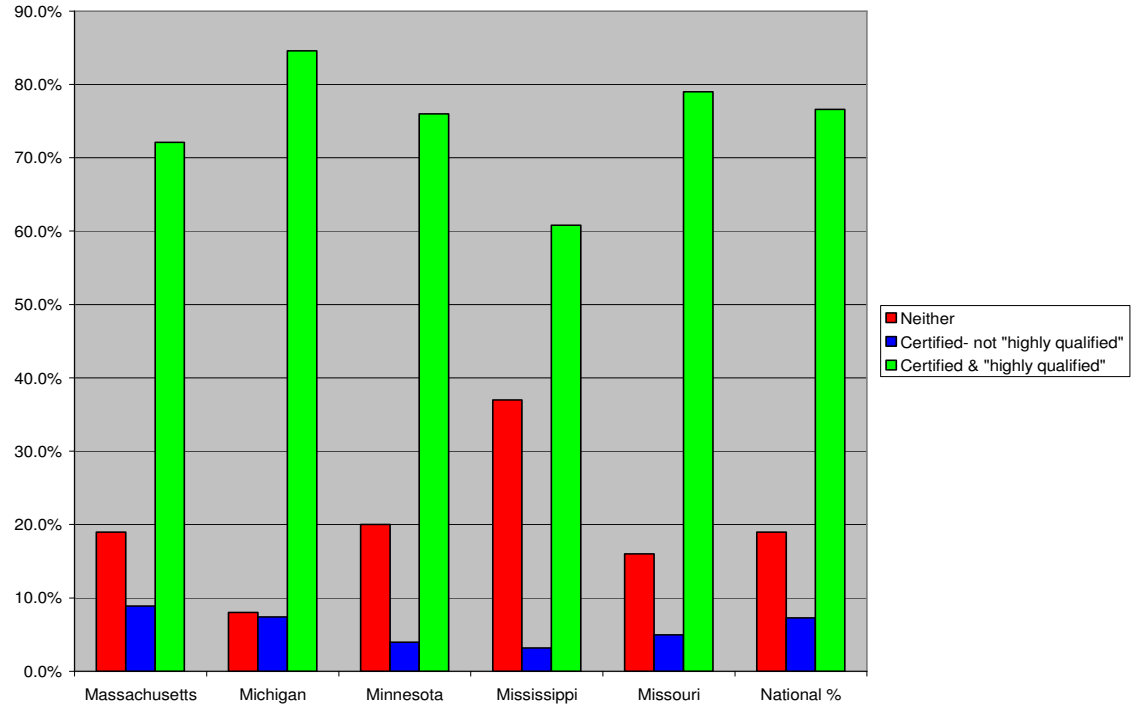

Figure 34. *Massachusetts – Missouri compared to National %*

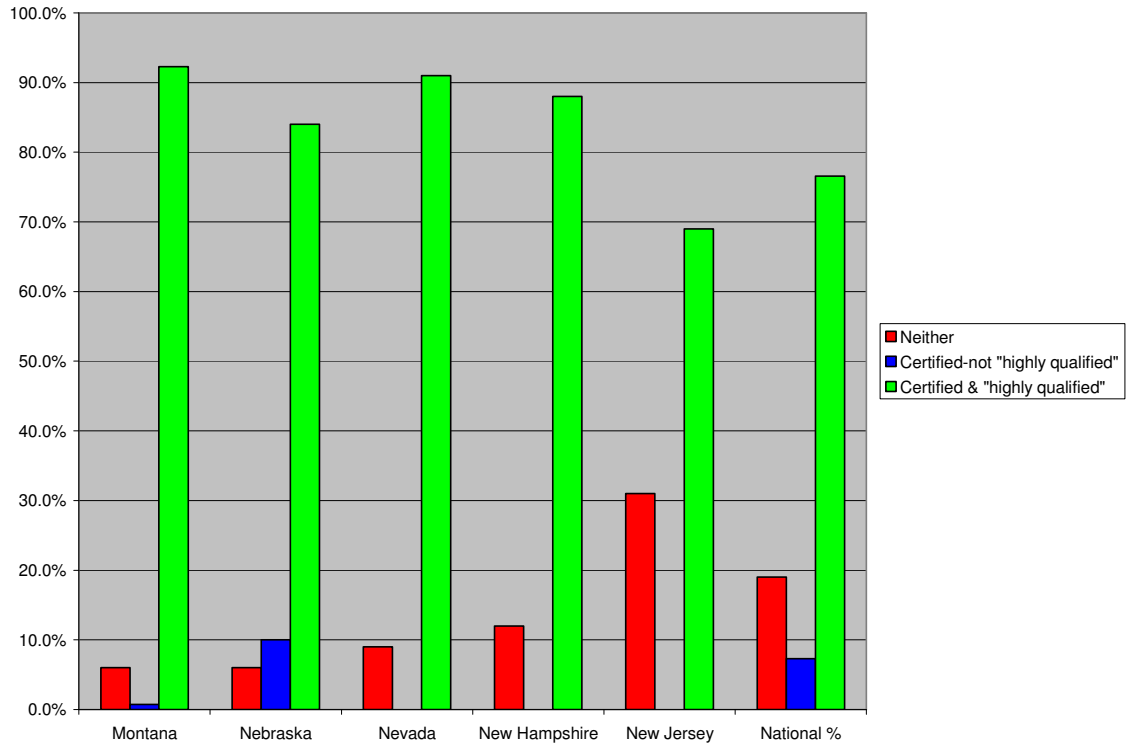

Figure 35. *Montana – New Jersey compared to National %*

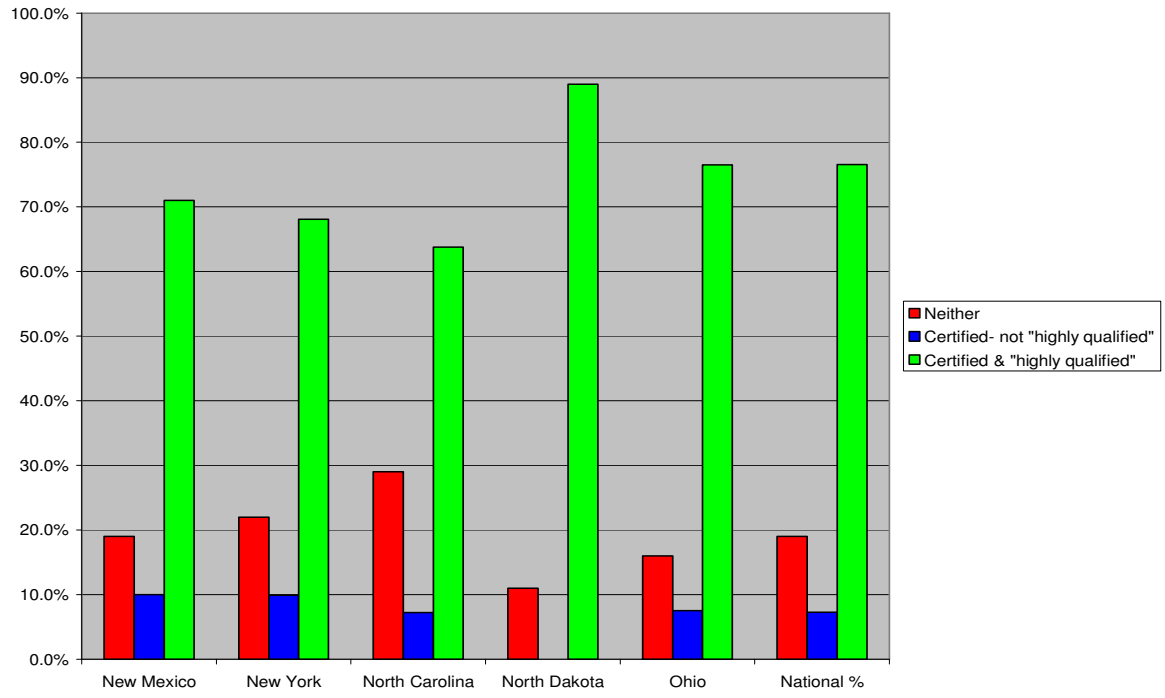

Figure 36. *New Mexico – Ohio compared to National %*

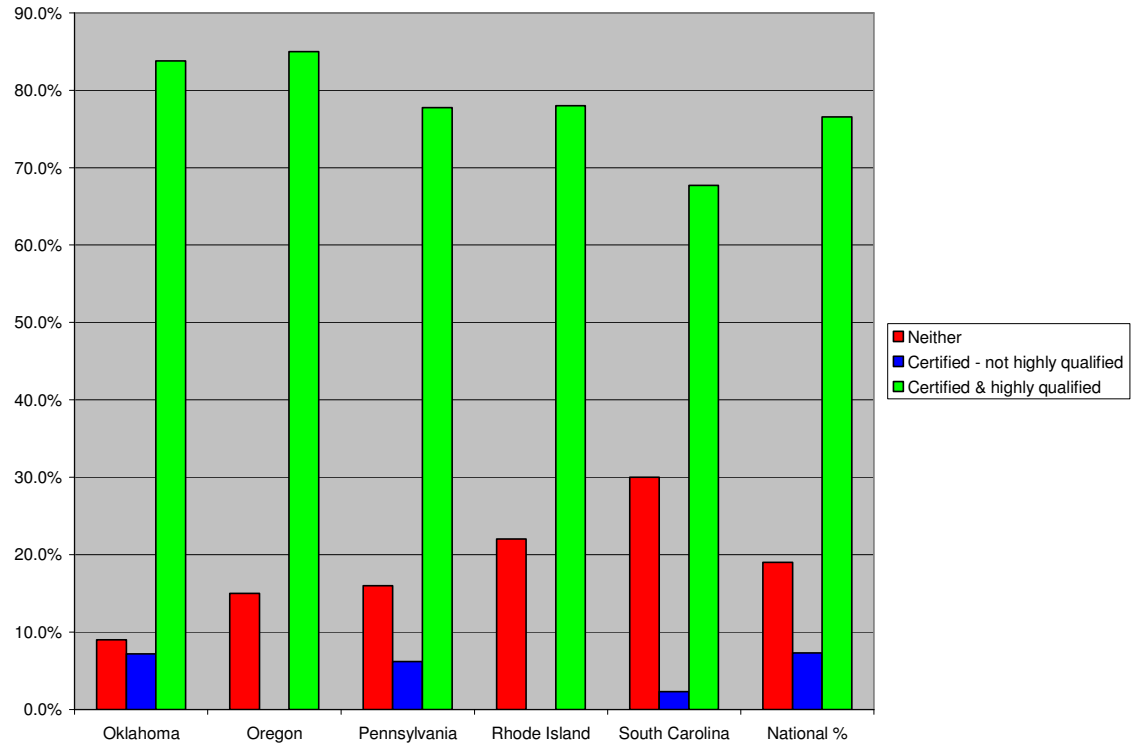

Figure 37. *Oklahoma – South Carolina compared to National %*

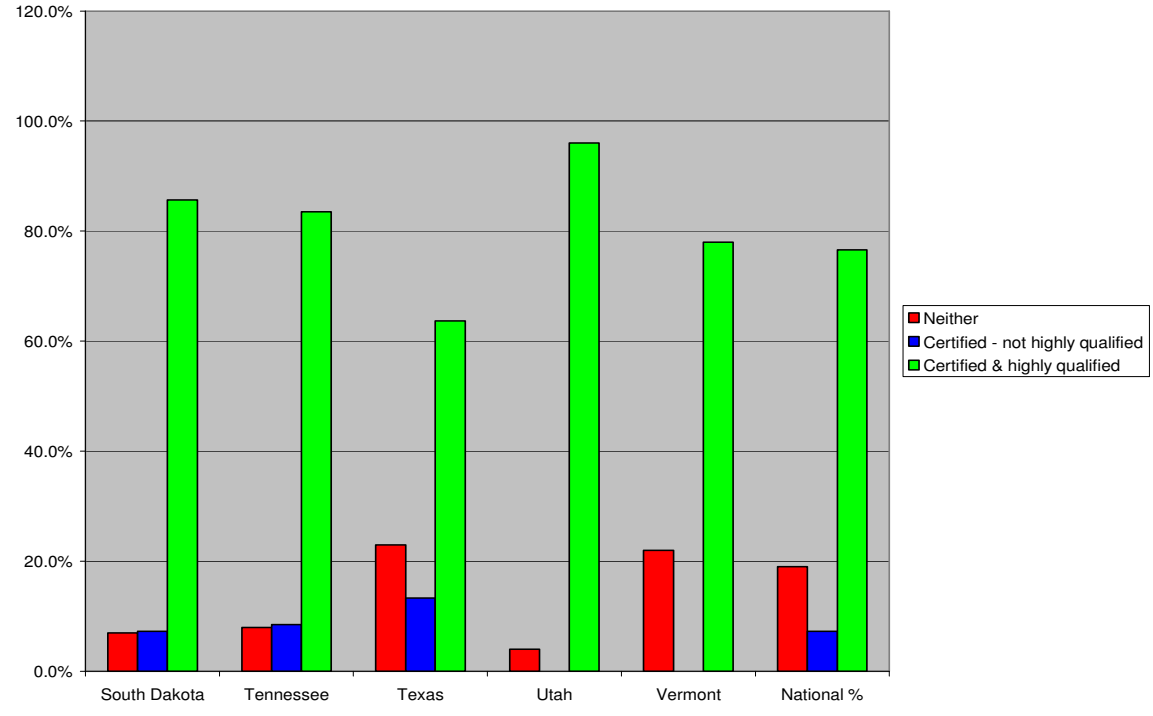

Figure 38. *South Dakota – Vermont compared to National %*

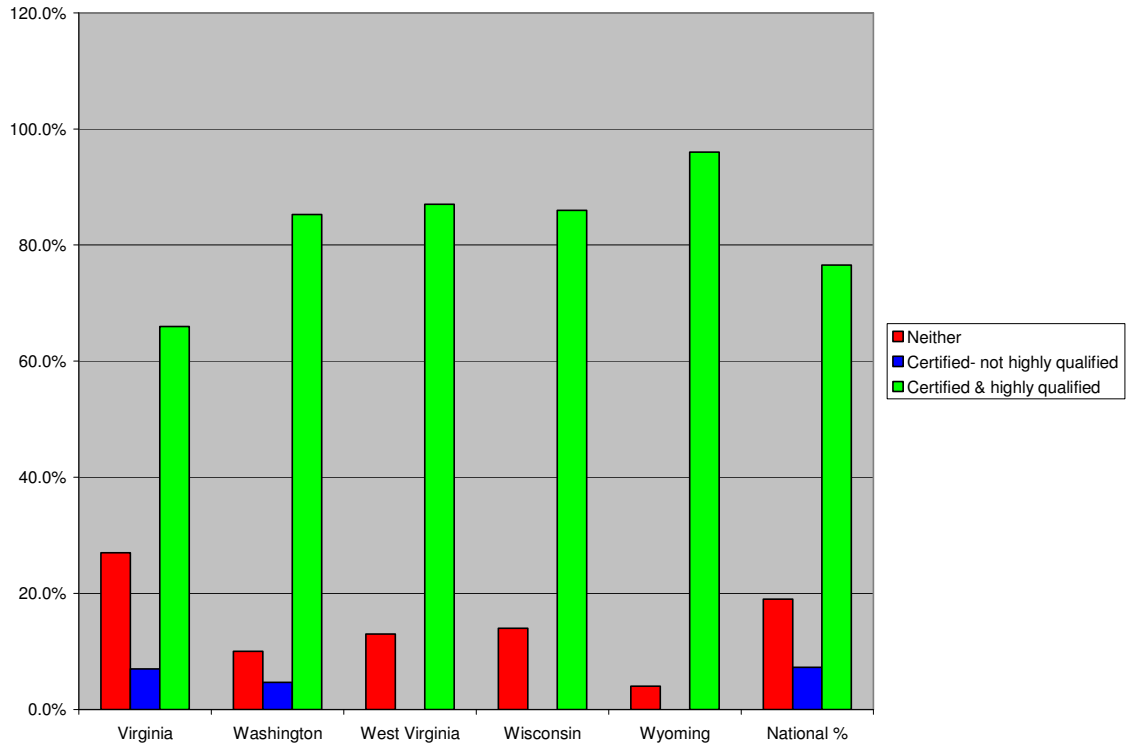

Figure 39. *Virginia – Wyoming compared to National %*

Research Question 5

What impact will the "highly qualified" component of NCLB have on middle school staffing?

Response Rate

The number of middle school teachers in each state came from Question 7 of the survey. Forty-two states answered this question and the data for the District of Columbia and the other states came from the National Center for Education Statistics in Washington, DC. Of the 42 states who responded, nine qualified their answers by stating if 6th grade was in an elementary school those sixth grade teachers were not counted and if 7th or 8th grade were included in a 7-12 school those teachers were not counted. This yielded a response rate of 82% for this question.

Results for Research Question 5

In evaluating the impact of *NCLB* on middle school staffing several data points were used. The number of middle school teachers in the state came from Question 7 of the questionnaire. These data were not separated into core courses which are the only courses affected by the "highly qualified teacher" component of *NCLB.* Generally the only course in middle schools not in this core is physical education unless the school has some exploratory classes or enrichment classes. The data may be slightly skewed when looking at the impact of *NCLB* since teachers of non-core subjects will not be affected.

The percentage of "not highly qualified teachers" comes from subtracting the percentages in the "certified and highly qualified" column in Table 37 from 100%. This is a valid process since either a teachers are"highly qualified" or they are not. A teacher cannot be "highly qualified" without being certified so the column "certified and highly qualified" could simply be called "highly qualified." This table is missing information from 23 states so the percentage of "highly qualified" teachers in these states will be somewhat skewed which results in the percentage of "not highly qualified" teachers also being skewed.

The Department of Education's website for each state was searched to discover the turnover rate in the past in the state. This was predicted to hold true for this year as well since this data varied only slightly, three-tenths of a percent or less, in each state during different years in the 13 states where it could be located. The national turnover rate of 16% was used for the other 37 states and the District of Columbia (National Center for Policy Analysis, 2002). This national turnover rate does not include teachers who have retired so, at least in the states where this figure is used, there will probably be an even greater need for "highly qualified" teachers.

A final column was calculated to determine the estimated number of "highly qualified" middle school teachers needed in the state the following year. This was done by adding the percentage of not "highly qualified" and the predicted turnover percentage. This is the worst case scenario since some of the teachers in the turnover category are probably also in the NOT "highly qualified" category. This total percentage was then multiplied by the number of middle school teachers in the state. This final number was entered into the total column. All of these were then added to arrive at the number of "highly qualified" middle school teachers needed at a national level. A best case scenario was also calculated. This calculation assumes that all of the turnover came from teachers who were not "highly qualified". To obtain this percentage the turnover rate was subtracted from the percentage of "not highly qualified teachers" in each state. This percentage was then multiplied by the total number of teachers in the state. This is all shown in Table 38 below titled *Impact of NCLB on Middle School Staffing.*

The worst case scenario ranged from a low of 20% to a high of 64% of the middle school teachers in the state. The number of teachers needed in the worst case scenario ranged from 279 to 40,511.

The best case scenario ranged from a low of 0% to a high of 32% of the middle school teachers in the state. The number of teachers needed in the best case scenario ranged from 0 to 17,768. The actual amounts are probably somewhere in the middle.

Table 38
Impact of NCLB on Middle School Staffing

		% NOT	# NOT	Predicted	Worst Case			Best Case	
State	Teachers	"H.Q.."	"H.Q."	turnover %	# Turnover	Total %	# Needed	Total %	# Needed
Alabama	7239	16	1165	16	1158	32	2324	0	0
Alaska	1601	10	160	16	256	26	416	6	96

Table 38, Cont.

Arizona	10832	27	2914	19	2058	46	4972	8	867
Arkansas	4364	27	1178	16	698	43	1877	11	480
California	71072	41	29140	16	11372	57	40511	25	17768
Colorado	8255	48	3921	16	1321	64	5242	32	2642
Conneticut	7506	22	1651	16	1201	38	2852	6	450
D.C.	565	19	107	16	90	35	198	3	17
Delaware	1804	29	523	16	289	45	812	13	235
Florida	34058	44	14849	16	5449	60	20299	28	9536
Georgia	9643	37	3549	16	1543	53	5092	21	2025
Hawaii	2415	20	483	27	652	47	1135	0	0
Idaho	3160	17	537	16	506	33	1043	1	32
Illinois	28403	25	7016	26	7385	51	14400	0	0
Indiana	13433	23	3049	16	2149	39	5199	7	940
Iowa	6099	23	1403	16	976	39	2379	7	427
Kansas	6810	39	2663	16	1090	55	3752	23	1566
Kentucky	8341	30	2519	16	1335	46	3854	14	1168
Louisiana	10921	48	5231	16	1747	64	6979	32	3495
Maine	3396	23	781	16	543	39	1324	7	238
Maryland	12198	19	2318	16	1952	35	4269	3	366
Mass.	15685	28	4376	16	2510	44	6886	12	1882
Michigan	19071	15	2937	16	3051	31	5988	0	0
Minnesota	11042	24	2650	17	1877	41	4527	7	778
Mississippi	7071	40	2843	16	1131	56	3974	24	1697
Missouri	13696	21	2876	16	2191	37	5068	5	685
Montana	2136	7	143	16	342	23	485	0	0
N. Carolina	19027	36	6888	15	2854	51	9742	21	3996
N. Hampshire	4254	12	510	16	681	28	1191	0	0
Nebraska	4143	16	663	16	663	32	1326	0	0
Nevada	4366	9	393	16	699	25	1092	0	0
New Jersey	20637	31	6397	16	3302	47	9699	15	3096
New Mexico	4208	29	1220	18	741	47	1961	11	463
New York	43813	32	13976	16	7010	48	20986	16	7010
North Dakota	1764	11	194	16	282	27	476	0	0
Ohio	27358	24	6429	16	4377	40	10806	8	2189
Oklahoma	8361	16	1354	16	1338	32	2692	0	0
Oregon	6070	15	911	16	971	31	1882	0	0
Pennsylvania	26225	22	5822	7	1836	29	7658	15	3934
Rhode Island	2450	22	539	16	392	38	931	6	147
S. Carolina	10435	32	3371	16	1670	48	5040	16	1670
South Dakota	1966	14	281	16	315	30	596	0	0
Tennessee	13808	17	2278	16	2209	33	4488	1	138
Texas	60313	36	21894	16	9349	52	31242	20	1206
Utah	4502	4	180	16	720	20	900	0	0

Table 38, Cont.

Vermont	1596	22	351	16	255	38	606	6	96
Virginia	18924	34	6434	17	3255	51	9689	17	3255
Washington	10524	15	1547	17	1789	32	3336	0	0
West Virginia	4195	13	545	16	671	29	1217	0	0
Wisconsin	12706	14	1779	19	2414	33	4193	0	0
Wyoming	1395	4	56	16	223	20	279	0	0
US	633856	29	184996	16	102887	46	287882		71239

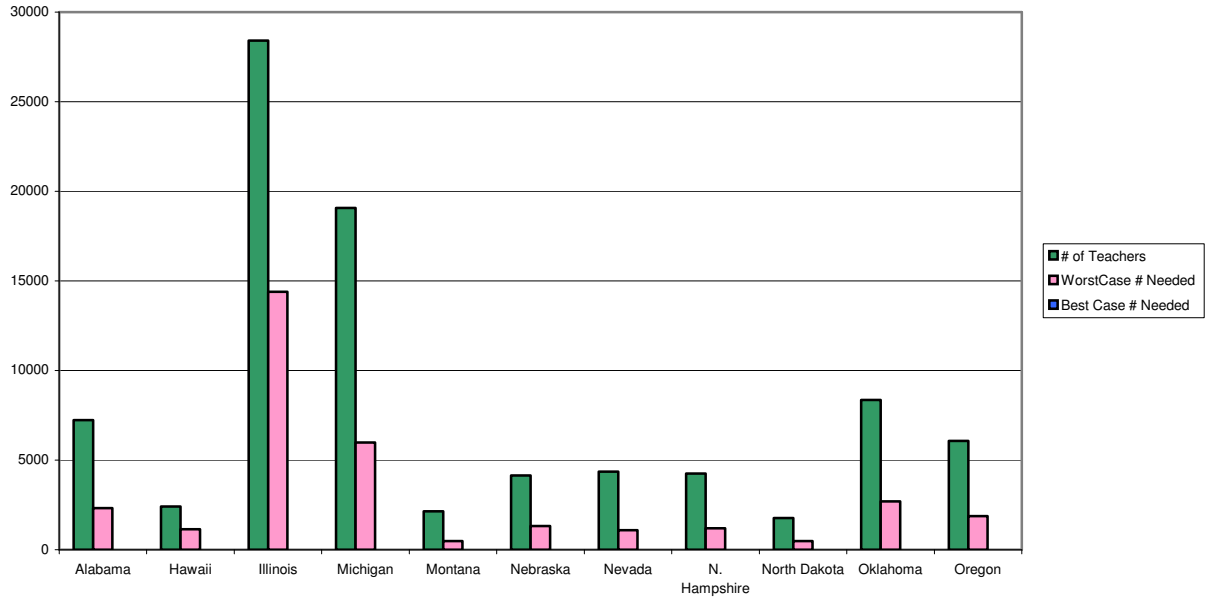

Figure 40 *Middle School Teachers & Number of Highly Qualified Needed #1*

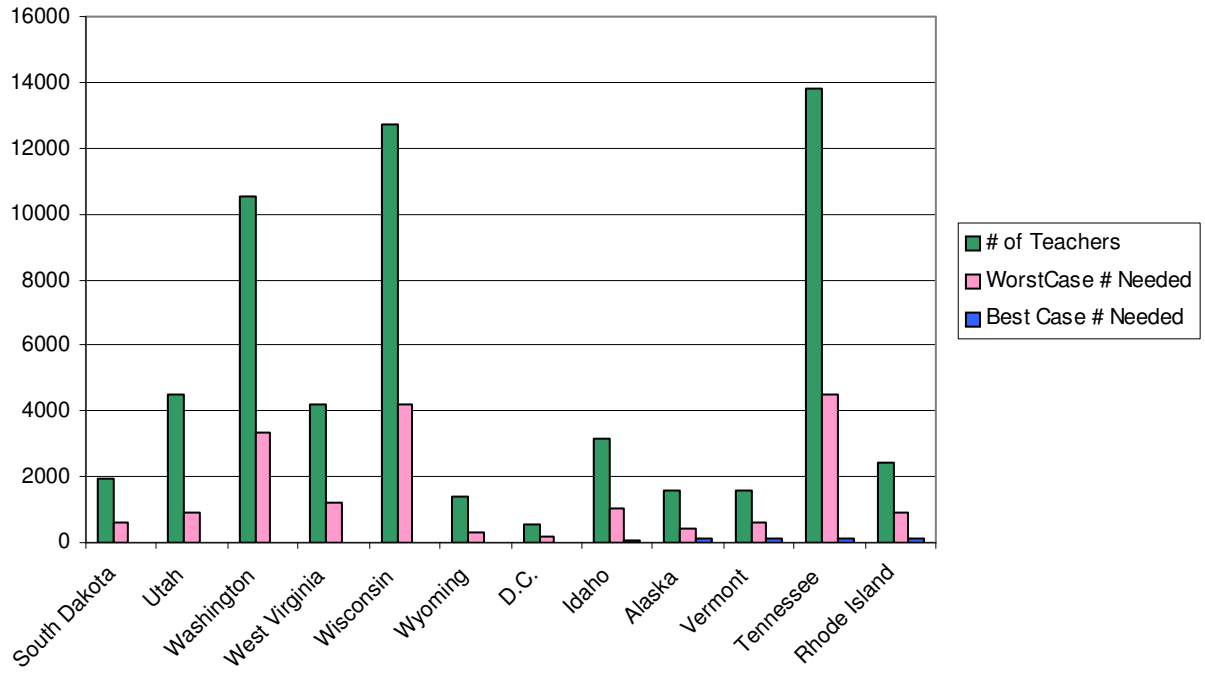

Figure 41. *Number of Middle School Teachers & Number of Highly Qualified Needed #2*

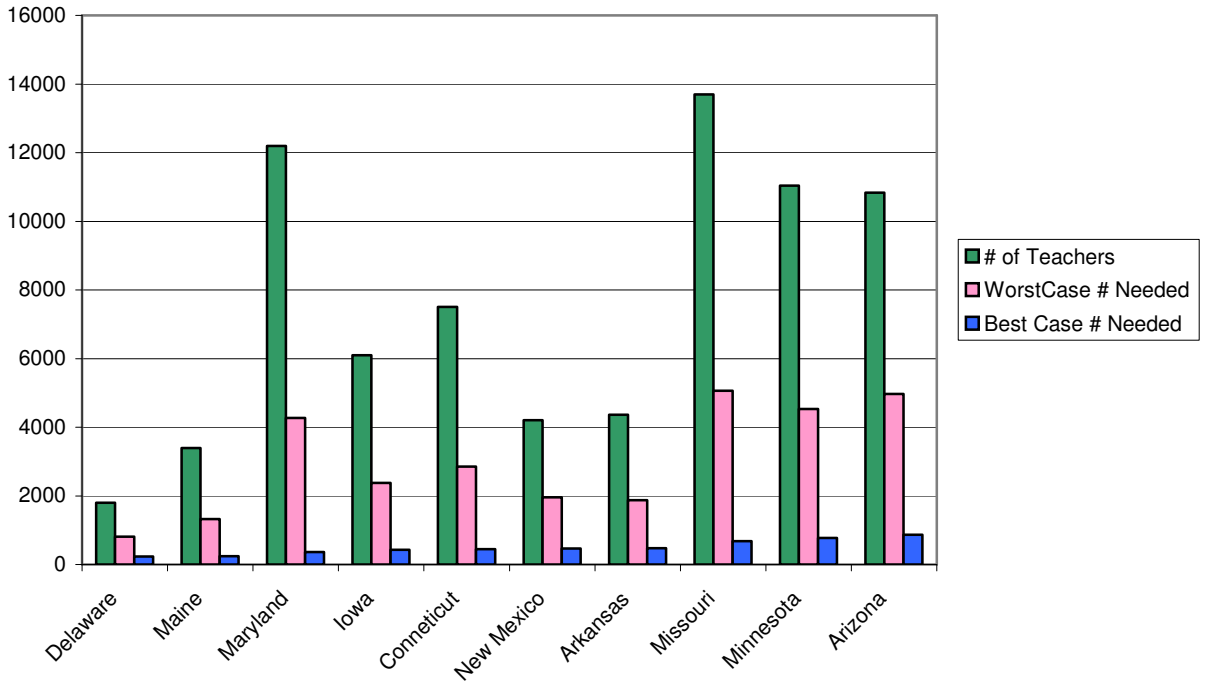

Figure 42. *Middle School Teachers & Number of Highly Qualified Needed #3*

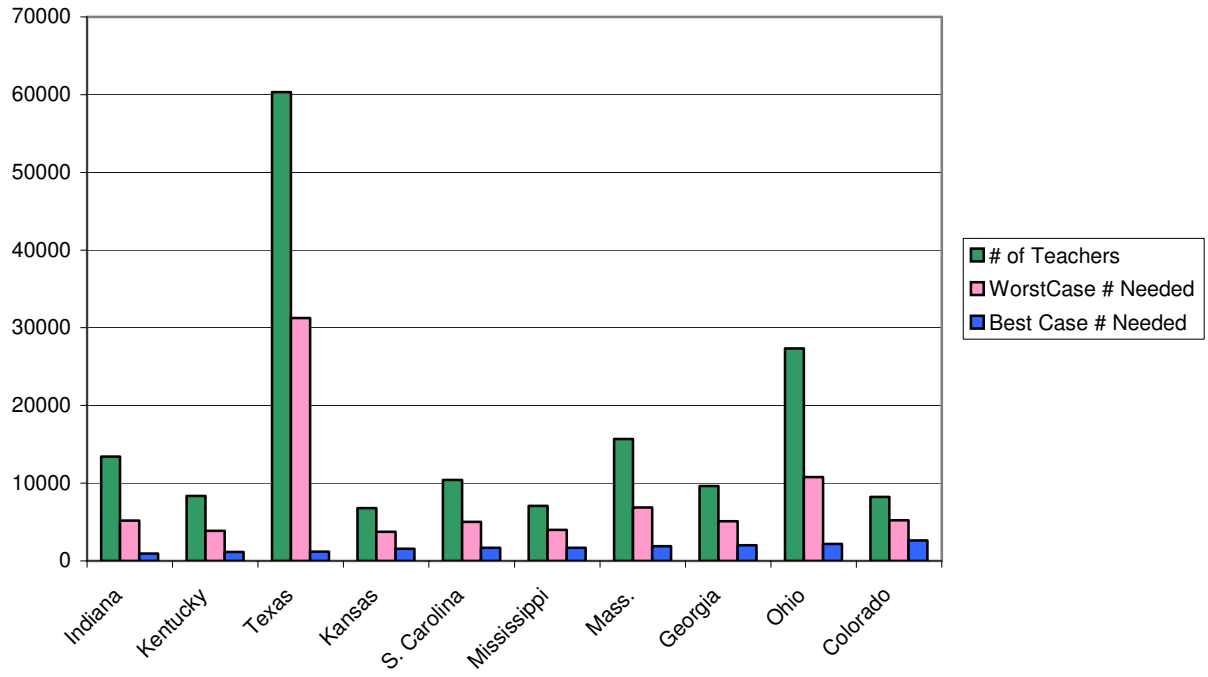

Figure 43. *Number of Middle School Teachers & Number of Highly Qualified Needed #4*

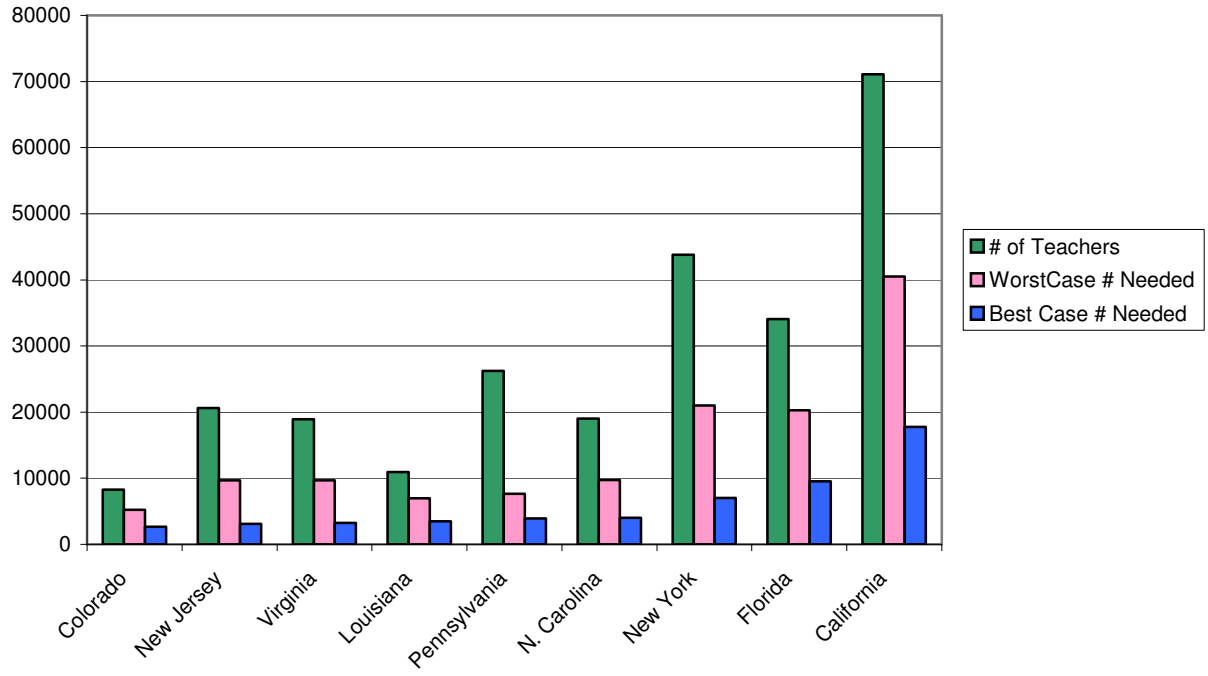

Figure 44. *Number of Middle School Teachers & Number of Highly Qualified Needed #5*

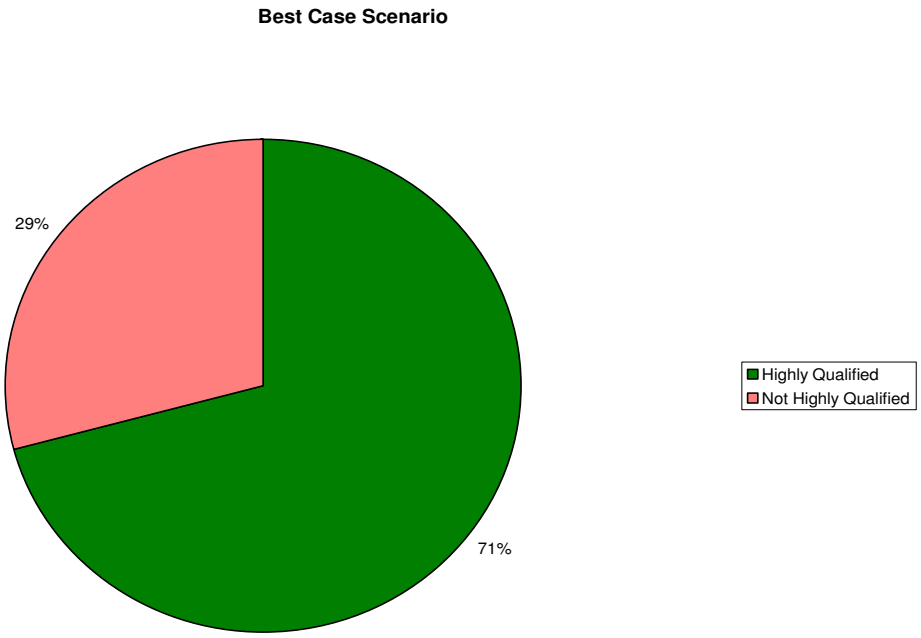

Figure 45. *Number of Middle School Teachers Nationally & "Highly Qualified" Needed*

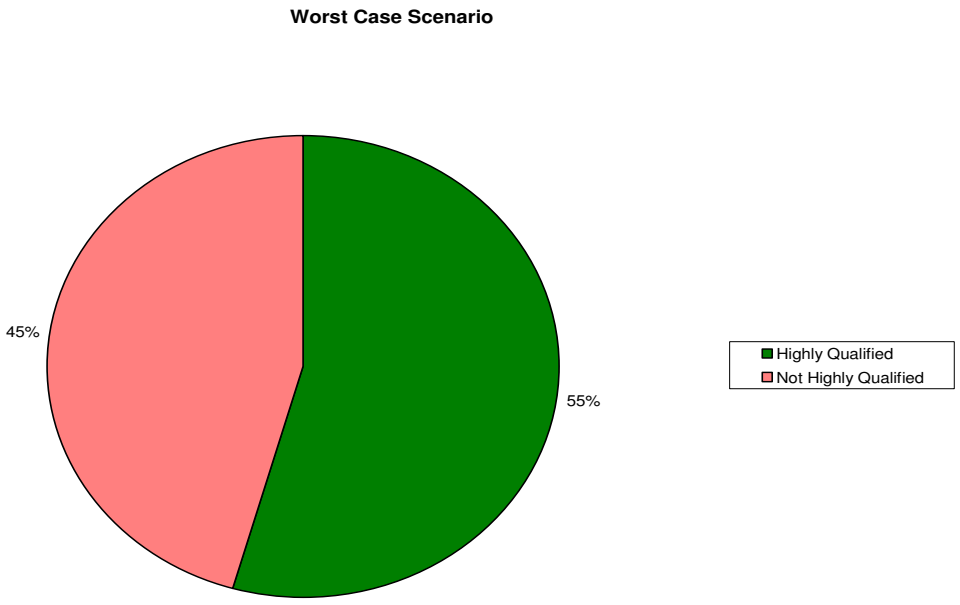

Figure 46. *Number of Middle School Teachers Nationally & "Highly Qualified" Needed*

The analysis of this data provided some interesting information regarding the "highly qualified" teacher component of *NCLB* as it applies to middle school teachers. Looking at the pie graph above it is obvious the need for "highly qualified" middle school teachers nationally is enormous. Where are states supposed to find all of these teachers?

The HOUSSE requirements in many states are constructed to assist teachers in demonstrating subject matter competency but as these veteran teachers retire, taking with them their "highly qualified" status, states will be looking for new teachers with a major in their field. This may result in districts competing for the relatively small number of graduates which will result in an even bigger divide between the more affluent districts and those in poor districts. *NCLB* was designed to make sure this does not happen but this component of the law may result in just the opposite. Further conclusions based on this data is discussed in Chapter 5.

CHAPTER 5
IMPLICATIONS

Overview of Study

The *NCLB Act of 2001* requires every classroom to be staffed by a "highly qualified" teacher by the end of the 2005-2006 school year. When the law was first enacted it required all teachers to be certified and show subject matter competency by either having a major or minor in the subject they teach or passing a subject matter test. This has been modified to allow veteran teachers a way to meet the subject matter competency without going back to school to acquire a subject area degree. This modification is called the HOUSSE option.

This study focused on the implications of the "highly qualified" teacher component of *NCLB* and how this will impact middle schools. It was a descriptive study that looked at several changes that have occurred in schools since *NCLB* and how these changes may affect middle school staffing.

Certification officers for all 50 states and D.C. were contacted to gather the information necessary for the study. A questionnaire was completed by these officers to collect the data. In addition to this, the U.S. Department of Education website was accessed to gain more information. If a state did not answer all of the questions or the answer was incomplete, other resources were used to fill in the information left blank.

Data were collected on the certification requirements for teaching in a middle school both before and after the enactment of *NCLB.* This information was placed in Excel spreadsheets. These charts were then compared and an index of change for each state was created. This index

indicated both how certification requirements changed and how much more (or less) rigorous they became after *NCLB*.

Additional data were collected from each state regarding the number of middle school teachers in the state who were not fully certified. This number included those on temporary certificates, one-year certificates, provisional certificates, non-certified, or on emergency certificates. These data were entered into a spreadsheet as well. The data also were displayed on a bar graph showing the percentage of each category as a national average.

HOUSSE requirements for each state were also collected. These data were analyzed using a frequency distribution and the percentage of each category was displayed on a bar graph. Each category was analyzed and graphed as a percentage of states that used the category as a criterion for being "highly qualified."

Finally, the turnover rate of teachers for each state and the percentage of NOT "highly qualified" teachers in each state were placed in a chart with the total number of middle school teachers. Anticipated turnover percentage and NOT "highly qualified" percentage were added and then multiplied by the number of teachers to give the worst case scenario of the number of "highly qualified" teachers needed in each state. This information was then presented in visual form as bar graphs. This information was also computed on a national level and presented as two pie charts--one displaying the worse case scenario (if all turnover were among NOT highly qualified teachers) and the other showing the best case scenario (where all turnover is among highly qualified teachers thereby requiring replacement of these PLUS the NOT highly qualified teachers who remain.

Limitations of the Study

One of the limitations of this study is that many states have not finalized their criteria for

determining if a teacher is "highly qualified." As of 2003 only ten states had put into law all the requirements of NCLB, 22 had made some progress toward that goal, and 18 had just started (Keller, 2003). As this study progressed, the criteria kept changing. As a conscientious researcher, I attempted to keep up with all the changes but some may have been missed or changed after the publication of this study. Since the onset of this research, Louisiana, for example, has changed the criteria for middle school certification three times in a two-year period and has changed the requirements to be "highly qualified" nine times.

States are not alone in their penchant for changing criteria. The federal government has changed the requirements for "highly qualified" teachers three times since its inception in 2001. The first change was the time frame for all teachers to be "highly qualified" – it was originally the start of the 2005-2006 school year and now it is the end of the 2005-2006 school year. Another change was the requirement that all new teachers hired in high-poverty schools after 2002 would be "highly qualified." This date was extended to coincide with the 2005-2006 deadline. Another change relaxed the rule of "highly qualified" teachers in rural districts by allowing them an additional three years to become "highly qualified" in all the subjects they teach if they were already highly qualified in one area (Robelen, 2004). Also, science teachers can demonstrate they are highly qualified in the broad field of science or in individual fields such as biology or chemistry (Robelen, 2004).

The final limitation was many states had not collected the data in their state to respond to completely respond to the survey. The main obstacle was the collection of the data on middle school teachers. Many states had the needed data for elementary and secondary teachers but had not separated this data into middle school teachers only.

Implications for Veteran Teachers

Largely due to lack of guidance by the U.S. Department of Education, options for veteran teachers to be considered "highly qualified" vary considerably by state. Some states require teachers to hold a minor in the subject they teach, six states only require teachers to pass their district or state evaluation, some states insist if their teachers are certified then they are "highly qualified," and, the most common method, uses of a point system called HOUSSE.

States have developed an alternative way for veteran teachers to demonstrate subject matter competency. This is through the HOUSSE option. The majority of the states, 30, use a point system to determine if a teacher is "highly qualified." Again this varies by state and can be very confusing. It is a veritable smorgasbord of options. Each item on the smorgasbord is assigned an arbitrary point value. Arizona, for example, has one of the most complicated plans for earning points. Teachers there can earn points for years of experience, course work, professional development, professional activities, awards, publishing, and presentations at content area conferences. Under each of these categories there are multiple ways to earn points. In comparison, a teacher in Michigan can have only 6 hours in content area courses, or submit a portfolio and be observed teaching, to be considered "highly qualified." Due to reciprocity agreements among states, a teacher "highly qualified" in one state can move to another state with a reciprocal agreement and be considered "highly qualified" there as well. A veteran teacher could easily go to a neighboring state which has less rigorous HOUSSE options for one year to become "highly qualified" and then return to the home state carrying that status with him or her.

Walsh and Snyder (2004) graded the HOUSSE options based on three principles and a bonus category. Principle 1 was identifying teachers who lack academic work, principle 2 was the rigor of the requirements, principle 3 was clarity and accessibility, and bonus points were

awarded to states who offered collaborative support to help teachers (Walsh & Snyder, 2004). Table 39 below shows the grades awarded to the states.

Table 39
State Grades from Walsh and Snyder

	Frequency	Percent	Cumulative Percent
A	1	2.0	2.0
B	8	16.0	18.0
C	9	18.0	36.0
D	13	26.0	62.0
F	8	16.0	78.0
Incomplete	11	22.0	100.0
Total	50	100.0	

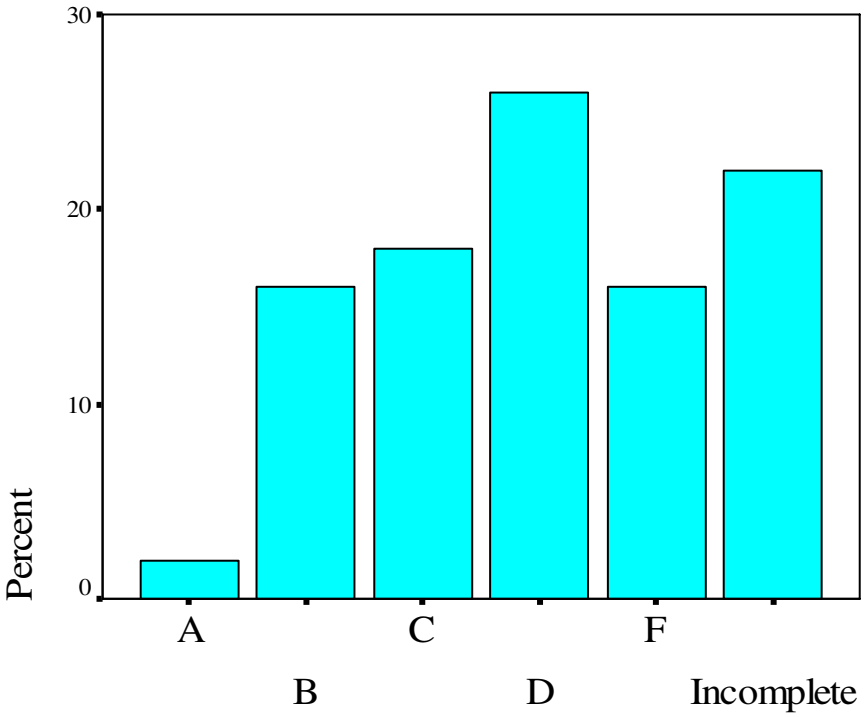

Figure 46. *State Grades from Walsh and Snyder (2004)*

As is evident from the grades above, there is wide variety among the states. Those listed in the incomplete category are those that hold to the claim that any certified teacher is "highly qualified." Certain states already require a content major to be certified so their teachers would

automatically be "highly qualified." Unfortunately that is not the case in all of the states listed as incomplete. The states where being certified automatically means "highly qualified" even without a major would be good places for teachers who do not have the content courses to teach for a year and then transfer with their "highly qualified" status to another state with more rigorous requirements.

One of the major flaws with the HOUSSE options in states which received less than a B is the lack of focus on content knowledge. My research showed these states have multiple ways to earn the points necessary to become "highly qualified" with little or no additional course work in the content area. In these states teachers can earn points by such diverse means as being a mentor to new teachers, serving as department head, judging competitions related to content area, serving on committees, years teaching experience, or receiving recognition or awards. These are all worthwhile activities but do not necessarily demonstrate content knowledge. Most veteran teachers can come up with enough points using these criteria to be considered "highly qualified."

The grades given by Walsh and Snyder (2004) are very similar to the results found in this study. There are three notable exceptions. The only state to receive an 'A' by Walsh and Snyder was Colorado which uses longitudinal student achievement to determine "highly qualified" status. If Colorado received an 'A' for this method then why didn't Tennessee receive an 'A' for using the same method? If anything Tennessee should receive the 'A' and not Colorado since they pioneered this approach with Sanders' and Rivers' (1996) value-added system.

Eight states received an 'F' for their HOUSSE options. The research in this study supports these grades given by Walsh and Snyder (2004) except in one instance. Michigan received an 'F' in the Walsh and Snyder study because it gave teachers an option of using a state

evaluation to gain “highly qualified” status. The data collected for the current study showed no such option available in Michigan.

The third area where this study conflicts with the Walsh and Snyder study is in the incomplete category. Walsh and Snyder included states in this category which said being certified is the same as being “highly qualified.” This may not be valid in many states but in Idaho in order to be certified there is a requirement of 44 hours in 8 areas and a 20 hour content focus. Thus being certified in Idaho should certainly be considered “highly qualified.”

There are other states where this study does not agree with the findings of the Walsh and Snyder (2004) study. If there was only a difference of one point in the two grades that was attributed to differences in the graders perceptions but if the points differed by more than one point they are discussed here. Arkansas had a difference in point value because a teacher in Arkansas can be deemed “highly qualified” without taking one course in the subject taught so this researcher rated it a 5. Maryland received a 4 in this study because teachers who have been in the classroom for 3 or more years can become “highly qualified” by taking only 2 graduate courses in their subject area. The difference in the North Dakota score arises from Walsh and Snyder (2004) looking at HOUSSE requirements for elementary teachers as lacking but the current study only examined requirements for middle school teachers. The difference in the Tennessee scores was discussed earlier. In the Walsh and Snyder study Utah was rated as incomplete but the current study has all the data for Utah which accounts for the difference in grading. The criteria for the HOUSSE component in Vermont has changed since the Walsh and Snyder study in that a teacher can be “highly qualified” without hours in their subject which is why Vermont received a 5 in this study .

The HOUSSE requirements found in this study were rated for rigor and relevance to the intent of the "highly qualified" component of *NCLB.* A point system was utilized for this rating. The scale ranged from one to five with five being the worst and one being the best. This was then compared to the results in the Walsh and Snyder (2004) study. In the Walsh and Snyder study the states were given grades of A to F or incomplete. In order to compare the two ratings the Walsh and Snyder grades were also converted to the one to five scale with those receiving an incomplete receiving a point value of five. This comparison is shown in Table 40 below with the Pinney column being the ratings given by the researcher based on this study.

Table 40
Comparison of Ratings of HOUSSE Requirements

State	Pinney Ratings	Walsh and Snyder Ratings
AL	3	2
AK	3	4
AZ	3	4
AR	5	3
CA	5	5
CO	1	1
CT	5	5
DE	4	4
D.C.	5	5
FL	5	5
GA	4	3
HI	3	2
ID	4	5

Table 40, Cont.

IL	3	3
IN	3	4
IA	5	5
KS	3	2
KY	5	4
LA	3	3
ME	3	4
MD	4	2
MA	3	4
MI	4	5
MN	2	3
MS	4	5
MO	4	5
MT	5	5
NE	4	5
NV	3	4
NH	5	5
NJ	3	3
NM	3	4
NY	4	5
NC	5	5
ND	2	4
OH	3	4
OK	2	3

Table 40, Cont.

OR	2	2
PA	2	2
RI	2	3
SC	4	5
SD	5	5
TN	1	4
TX	3	2
UT	2	5
VT	5	2
VA	3	4
WA	5	5
WV	5	5
WI	5	5
WY	2	3

Table 41
Pinney Ratings

	Frequency	Percent	Cumulative Percent
1.00	2	3.9	3.9
2.00	8	15.7	19.6
3.00	16	31.4	51.0
4.00	10	19.6	70.6
5.00	15	29.4	100.0
Total	51	100.0	

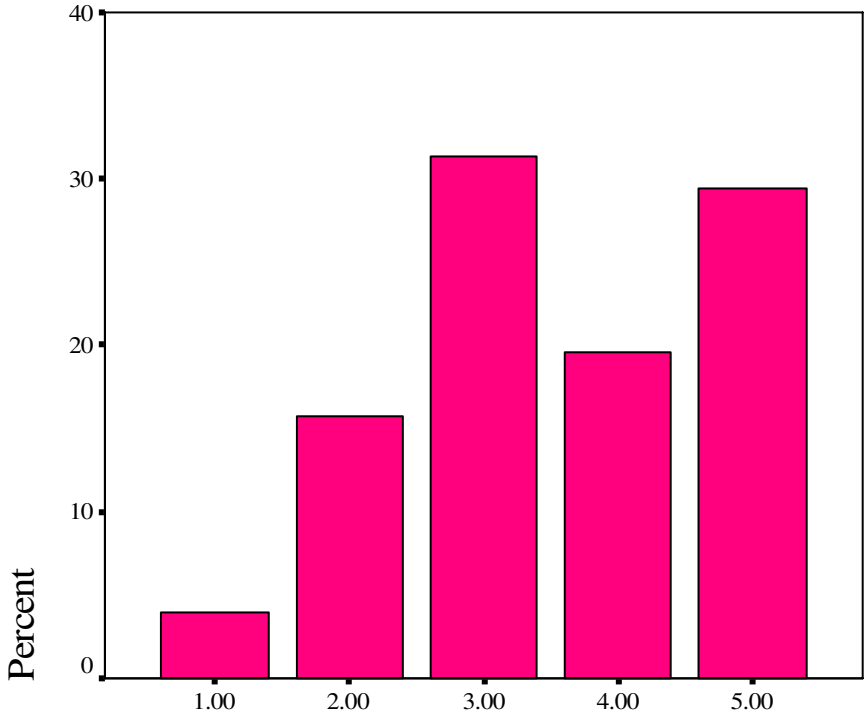

Figure 47. *Pinney Ratings*

Implications for Middle School Certification

Prior to the enactment of *NCLB,* two states required a 5th year of study in order to teach at any level and seven required no degree for certain subjects – including foreign languages which are considered core courses under this law. After the law was passed, one state actually dropped the 5th year requirement and an additional state allowed teachers to work without a degree. These changes point to an easing of state requirements for certification which is one component of being "highly qualified."

To be "highly qualified," teachers must demonstrate subject matter competence. One way this can be accomplished is through having a major or a minor in the field they are teaching. Considering this, one would expect states to require a certain number of credit hours in a subject in order to be certified to teach in middle schools. The research indicates that prior to *NCLB* only 5.2% of the states required enough hours in a subject area to be considered a major and even

after the passage of *NCLB* only 15% of the states required enough hours to be comparable to a major in a subject. Certification officers evidently are not looking past 2006 when all teachers coming into the profession must have a major or a minor in order to be considered "highly qualified" to teach in middle schools. The HOUSSE requirements only apply to currently employed teachers and will not be available after the end of the 2005-2006 school year. Perhaps the states which still do not require content hours comparable to a major have read the Darling-Hammond (2000) study which indicates the effect size on student achievement is several times greater for having an education degree than just having a degree in the subject discipline. Regardless of the reasoning, the states not requiring a major or at least a minor in a subject may well find themselves extremely short-handed when it comes to middle school teachers.

Another method of showing subject matter competence is through passing a subject matter test. Prior to *NCLB,* 27.6 % of the states did not require any teacher testing and after it only 13.3% did not require any testing. This appears to be the way many states are going to insure an ample supply of "highly qualified" middle school teachers. If this is the case, these states would do well to look at what happened to Philadelphia middle school math teachers when they took the subject area test. In the spring of 2004, Philadelphia's middle school math teachers took a subject area test for math and nearly 2 out of 3 teachers failed the test (Keller, 2004).

Four of the states which do not have a testing requirement do have a requirement of subject hours equal to a minor or a major in the subject. Even though most states do have a testing requirement now, this does not really insure subject knowledge as states set their own passing scores for the tests and these can be set extremely low. For example, Colorado has a passing score of 162 in English while Nevada only requires a 150 on the PRAXIS subject area test for English. In math, Nevada requires a 144 and Colorado requires a 156 on the PRAXIS

subject area test for math. Georgia only requires a 144 in English and a 136 in math on these same tests. A prospective teacher could actually go to a state with a lower score requirement, take the test, apply for certification, and then be "highly qualified" in any other state that has a reciprocal agreement with that state. Until the testing scores are made uniform across the country, this method of showing subject matter competency should be considered invalid. States can also create their own subject matter tests for "highly qualified" status. This is exactly what Texas has done and if their practice questions, which are available online, are any indication of the actual rigor of the test, then anyone who cannot pass it should not be teaching beyond the third grade. One of the sample questions for middle school math teachers follows (State Board for Educator Certification, 2004).

Use the table below to answer the question that follows:

Cuts of Beef	High Fat Content	Low Fat Content	Total
Flank Steaks	74	386	460
Rump Roast	258	142	400
Total	332	528	860

A USDA inspector is grading cuts of beef at a meat packing plant. If a piece of beef is selected at random, what is the probability that it will be a flank steak with high fat content?

A: 0.0860

B: 0.1609

C: 0.2229

D: 0.3868

State evaluation requirements have increased since the enactment of *NCLB* by 34.3%. Some states are actually using the passing of the evaluation as an indication that the teacher is "highly qualified." Just as the testing requirement varies across the states, so does the rigor of these evaluations. Some are simply an observation done by the principal or his/her designee while others involve a local panel of observers. Just because some teachers can do a "dog and pony show" while being observed does not necessarily mean they are "highly qualified." As a matter of fact, if the person who does the observation is not certified in the field the teacher is teaching, then subject area competence can not be guaranteed.

The certification categories have fluctuated quite a bit since *NCLB.* One of the most disturbing trends is doing away with middle school certification. There were 26 states with middle school certification prior to *NCLB* and only 25 states with it after *NCLB.* This does not tell the whole story, however, since there were 5 states which did have middle school certification that have now dropped it. Other states added the certification to make up the difference but it is a disturbing trend. *Turning Points 2000: Educating Adolescents in the 21st Century* recommends middle school teachers should be specifically prepared to teach young adolescents. (Jackson & Davis, 2000). Without middle school certification, it is unlikely that middle school teachers have received this preparation.

The college grade point average requirement is one that has changed substantially after *NCLB.* Only 10.3% states had a GPA requirement prior to *NCLB* as opposed to 35% after the law. Does this mean the teacher has content knowledge? This could be used if the GPA requirement applied to only the major but it is an overall GPA which includes core courses, electives, and content courses.

The number of states which had specific course requirements rose from 10.3% before *NCLB* to 31.7% after the law was passed. The additional courses required were either technology in the classroom or multicultural courses. The research did not indicate if these additional courses could apply toward making a teacher "highly qualified."

One of the largest changes in certification comes in the area of pedagogy courses. Prior to the law, only 4% of the states allowed certification without completion of an approved teacher education program. After the passage of *NCLB,* then Secretary of Education, Rod Paige, commented that "there is little evidence that education course work leads to improved student achievement" (U.S. Department of Education, 2002, p. 19). Perhaps this is the reasoning behind 13.3% of the states now not requiring a teacher preparation course for certification. The states which have eliminated teacher preparation programs from their requirements should look to the body of research that says the knowledge of teaching and learning acquired in teacher preparation programs is strongly correlated to student achievement. Ferguson and Ladd (1996) reported a strong correlation between teacher expertise and student achievement. McRobbie (2001) found that stronger preparation in every teaching field resulted in greater success with students and the increased likelihood of continuing in the teaching profession. The last finding of the McRobbie study, staying in the teaching profession, could have a profound effect on keeping "highly qualified" teachers in the classroom. The national turnover rate is 16% annually but 33% of new teachers leave teaching in their first three years and 46% leave in the first five years (National Center for Policy Analysis, 2002). If strong teacher preparation programs positively impact student achievement and keep teachers in the profession then instead of dropping this requirement states should look at ways to strengthen the teacher preparation programs.

A new requirement in 15% of the states since *NCLB* is that of recency of credit. This refers to how long ago the credits were earned. This requirement is only applied to teachers seeking certification who have a lapse in time between earning their credits and their teaching. This will primarily affect those teachers returning to the profession after a life-changing event such as children growing up, divorce, or death of a spouse.

What does all of this mean in terms of certification and being "highly qualified?" States should change their certification requirements to align more closely with the requirements to be "highly qualified." If certification requirements remain the same as they are in many states a teacher can continue to get certified but not be "highly qualified." This is fine if the teacher wants to teach in only private or parochial schools, but it would prevent them from teaching in the public school system. Also, middle school certification should be such that it allows teachers to teach in the multidisciplinary teams which are considered to be most effective with middle school students (Jackson & Davis, 2000). It appears that the certification push from *NCLB* is trying to turn middle schools into miniature high schools. This is a giant step backwards from the middle school reforms of the 1990s.

Implications for Teacher Education Programs

Probably the most significant implication for colleges and universities with teacher education programs is this shift away from pedagogy courses. College and university deans of education need to look closely at the courses required for their students and perhaps substitute some content courses for some pedagogy courses.

This does not mean to eliminate all pedagogy but to rethink courses such as the history of education and sociology of education. Methods courses for teaching the subjects should still be included and classroom management courses should be required. It does no good for a teacher to

be brilliant in content if he or she cannot get the information across to the students. Part of this ability comes from methods courses and a large part comes from classroom management (McREL, 2000).

An important part of pedagogy needs to address the way middle school students learn. "Specialized education for middle grades teachers is the first key step in the continuum to develop highly effective teachers of young adolescent students" (Jackson & Davis, 2000, p. 105).

Teacher education programs need to create cooperative endeavors with other disciplines, possibly recruiting potential teachers from the other colleges. If a major or a minor is going to be the benchmark used to demonstrate content knowledge then education departments need to do a better job of promoting teaching as an option to students with degrees in English, math, science, social studies, and foreign languages.

Although the number of new teacher graduates has risen in the past 15 years, only 30% of those new middle school graduates had degrees in fields other than education (Feistritzer, 1999). This means the only way 70% of new middle school teachers could become "highly qualified" is through the HOUSSE option. If this trend continues past the 2005-2006 school year then there will be a potential 3/4 or more middle school teachers NOT "highly qualified" teachers. It also means the new graduates will be unable to find a teaching position in the public school system. It would be educational malpractice for colleges and universities to continue to take tuition from students seeking to teach if these colleges do not prepare them to be qualified for the job.

The implications for colleges of education can be summarized as follows:

- Increase the number of content hours required to teach.
- Recruit prospective teachers from the other disciplines.
- Provide specialized courses for teaching middle school.

- Insure that all graduates have the requirements to be considered "highly qualified" upon receiving their certification.

Implications for State Departments of Education

Based on the national percentages of "highly qualified" teachers needed in the worst case scenario, there will be a shortage of 287,883 middle school teachers nationwide. Even in the best case scenario, there will be a shortage of 184,996 middle school teachers. Compare these figures to the fact that there are currently only 448,860 "highly qualified" middle school teachers nationwide and the magnitude of the problem becomes evident.

State departments and district offices are going to have to compete for these "highly qualified" teachers. This may mean monetary incentives to attract them, student loan forgiveness, housing and moving subsidies, or any other type of inducements the departments can come up with to compete with other states.

The magnitude of the task of acquiring "highly qualified" middle school teachers varies by state. Stan Beaubouef from the Louisiana Department of Education states "the largest area of concern is that the new middle school certification programs in the universities are just going into place" (2005). He further suggests that middle schools may have to use high school certified teachers to fill in the void until more middle school teachers can become "highly qualified" (Beaubouef, 2005). Considering the School and Staffing Survey (Ingersoll, 2002) indicates Louisiana already has 41% of high school students taught by teachers without a major and certification in the subject they teach, where are these excess high school teachers going to come from to teach middle school? Louisiana has a projected need for "highly qualified" middle school teachers that ranges from 5,231 to 6,978 notwithstanding any teacher retirements. There are 19 colleges and universities in the state of Louisiana with teacher education programs

(Louisiana Board of Regents, 2005) . There are currently 9,455 students enrolled in these teacher education programs (Louisiana Board of Regents, 2005). This total is for elementary, middle, and secondary education. Even if this number were distributed evenly among the three categories there would not be enough "highly qualified" middle school teachers in Louisiana to fill the need even in the best case scenario. And of course the distribution is highly weighted toward elementary education majors.

California faces an even more daunting challenge in providing for "highly qualified" teachers in its middle school classrooms. California's need for "highly qualified" middle school teachers ranges from 29,139 to 40,511, not including any teachers who retire. Even the best case scenario calls for 41% of the middle school teachers currently employed to be replaced by "highly qualified" teachers.

Exactly where the federal government expects states to come up with these extra teachers is a question that needs answering. There are already many classrooms that cannot be staffed by a certified teacher much less one that is "highly qualified." College students are not choosing education as a career choice in numbers large enough to fill these gaps. The best state departments can hope for is to insure all of their currently employed teachers are "highly qualified" by 2006 and that they all stay.

Implications for School-Based Administrators

During the hiring process middle school administrators must be aware of the "highly qualified" status of all applicants. It is no longer sufficient to worry about whether they are certified, now the administrator must ask about content knowledge requirements. Applicants must bring to the interview copies of transcripts showing hours in content or passing scores on subject area tests.

Vacancies in middle schools will have to be filled just like at the high schools – subject specific. Teachers certified K-8 can no longer teach in middle schools unless they also have the content hours in a specified subject or the area test. Once a teacher is hired for a specific class the or she cannot be moved to teach another subject. This causes problems at the middle school level where teachers may teach an English – reading block or a math-science block. Even if a school doesn't do this kind of scheduling, the size of middle schools often limits scheduling. A teacher may teach three science classes and two math classes, two social studies and three reading classes, or any other combination. The previously accepted K-8 certification allows for this type of flexibility but *NCLB* will eliminate not.

In my middle school, for example, there is a teaching staff of 45. Thirteen are special education certified, six are secondary certified, and 26 are K-8 or 1-8 certified. The elementary certified teachers will be "highly qualified" under HOUSSE regulations but only in their current teaching assignment. When it comes time to hire teachers for vacancies, I cannot hire someone with a subject area degree to replace one of the HOUSSE qualified teachers unless the current teacher can be moved to another spot in the same subject area. This will tie the hands of many administrators who may want to put a more effective teacher in a particular position held by someone else. Prior to *NCLB* an elementary teacher could teach any subject up to the 8th grade level so teachers were often shifted to a different subject to make room for other teachers. This can no longer be done unless the teacher who is moved is "highly qualified" in the other subject.

Recommendations for Future Research

Two states, Colorado and Tennessee, indicated veteran teachers could demonstrate content knowledge based on longitudinal student achievement. If their students, over a three-year period, scored at or above the baseline score for that grade level then the teacher would be

deemed “highly qualified.” Research could be conducted to determine if those teachers would have been “highly qualified” using the major or minor in the content area criteria. Further research into the value-added (Sanders, 1996) by classroom teachers as a measure of teacher quality is long overdue.

Jackson and Davis (2000) contend that teachers in middle schools need to have coursework in order to teach young adolescents. Studies could be conducted to determine if the “highly qualified” middle school teachers coming out of the colleges are actually receiving this training and whether such training is correlated to student outcomes.

Conclusion

The *No Child Left Behind Act* of 2001 has called for major changes in the ways schools do business. Not the least of these changes is in the demand for “highly qualified” teachers in all classrooms. This is a lofty goal that any school would love to accomplish but the reality is there are just not enough teachers in this country – “highly qualified” or not. Just because the federal government mandates it does not make it happen. I doubt if there is any school system in the country which goes out and says, “We want to hire unqualified people to teach our children.”

This research indicates there is not one state which has 100% of certified teachers much less “highly qualified” teachers. This research indicates the need for more middle school teachers based on data from the 2002-2003 school year. However, according to the U.S. Department of Education (1998), by 2007 the current school enrollment will rise by nearly 3 million more children. Some of this rise occurred prior to the 2002-2003 data but if there are only one million more students by 2007 and only 300,000 are middle school students, this predicts a need of approximately 100,000 more “highly qualified” middle school teachers over and above what this research predicted.

If the federal government really wants to improve teacher quality then help is needed in attracting the best and brightest back into the classroom. It will be particularly hard to attract top quality math and science majors to the profession of teaching without some substantial monetary incentives. One proposal might be to give teachers a federal income tax break, more than the $250 dollar credit for school supplies. Another way might be to forgive federal education loans by forgiving one year of loans for every two years of teaching. The federal government does forgive Perkins Loans for teachers working in schools serving low-income families or for special education, math, science, and foreign language teachers (U.S. Department of Education, 2004). Up to $5,000 of Stafford loans can be cancelled if the loans were received after 1998 and the teacher works for 5 consecutive years in a school serving low-income families but the service had to begin after the 1997-1998 school year (U.S. Department of Education, 2004). This is a start but more of the loans need to be forgiven and not just for teachers working in schools for low-income families.

To make this push toward "highly qualified" teachers really work, the federal government needs to step in and set minimum criteria for passing on the subject area tests, GPA, and hours required for a major and a minor as all of these vary so much by state. Why must some students suffer with less qualified teachers just because of their state of residence? If "highly qualified" is a valid descriptor, then students deserve equally highly qualified teachers. Guidelines also need to be established for HOUSSE requirements. Even though the HOUSSE requirements will disappear after the 2005-2006 school year some sort of national criteria needs to be created to avoid letting veteran teachers slip through the cracks if they truly do not know their subject matter.

The idea of a "highly qualified" teacher in every classroom is a great one but the problems derive from implementation. Unlike Annual Yearly Progress, another component of *NCLB,* the "highly qualified" requirement did not establish a baseline with incremental steps required to reach the goal. A deadline was simply set and no matter how far a state was from reaching the goal, they had to do so by the end of the 2005-2006 school year. Realistically things in education do not change that rapidly and states need to be given time to reach the goal – one step at a time.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

1. What were the certification requirements for middle school teachers immediately prior to 2001?

2. What are the current certification requirements for middle school teachers?

3. What are the certification requirements for a middle school teacher to be "highly qualified" according to your state in order to meet the requirements of the *No Child Left Behind Act* ?

4. What is your state doing about your currently certified teachers to make them "highly qualified"? (HOUSSE requirements)

5. What percentage of your state's middle school teachers are non-certified, working with a one year certificate, temporary certificate, waivers, and teaching out of their field?

6. Do you have any temporary teaching certificates, provisional teaching certificates, one year certificates, etc? If so, what are the requirements for each and how will these be addressed for *NCLB*?

7. What percentage of your middle school teachers are certified but not “highly qualified”?

8. What impact do you perceive NCLB will have on middle school staffing in 2006?

APPENDIX B

REVISED QUESTIONNAIRE

1. What were the certification requirements for middle school teachers immediately prior to 2001?

2. What are the current certification requirements for middle school teachers?

3. What are the certification requirements for a middle school teacher to be "highly qualified" according to your state in order to meet the requirements of the *No Child Left Behind Act* ?

4. What are your HOUSSE requirements to allow currently certified teachers to be "highly qualified"?

5. List the percentage of your state's middle school teachers who are non-certified _____, working with a one year certificate _____, working with a temporary certificate _____, working with a waiver _____, and teaching with less than 12 semester hours in the subject they are teaching _____?

6. Do you have any temporary teaching certificates, provisional teaching certificates, one year certificates, or other types of non-fully certified certificates _____? If so, what are the requirements for each and how will these be addressed for *NCLB*?

7. How many middle school teachers are currently teaching in your state?

8. What percentage of your middle school teachers are certified but not "highly qualified"?

9. In your most informed estimate, what percentage of the middle school teachers in your state will be "highly qualified" by 2006?

APPENDIX C
CERTIFICATION REQUIREMENTS PRIOR TO *NCLB*

	Degree Req.			Hrs in subj.	Testing Required			St	Cert. Cat. Middle Sch Tchr				GPA	Sp. Crs	Tchr.
	None	BA	MA		PRAXIS	NTE	State Test	Eval	K-6	K-8	Middle	Sec			Prep
AL		x							x		x	x			x
AK	x	x								x		x		x	x
AZ		x		18			x			x		x			x
AR		x				x			x		x	x			x
CA		x	1yr				x			x		x		x	x
CO	x	x					x	x	x		x	x			x
CT		x		18	x		*ACT, SAT	x	x		x	x			x
DE		x		9 in 3 areas	x						x	x			x
DC		x			I & II				x		x	x		x	x
FL	x	x		18			x	x	x	x	x	x	2.5		x
GA	x	x		15	II						x	x			x
HI		x		18	x			x	x			x			x
ID		x		20						x k-9		x			x
IL		x		18			x			9		x			x
IN		x		18		x			x		x	x			x
IA		x		30						k-9		x			x
KS		x			x					9	x	x	2.5		x
KY		x*		24		x		x			x	x			x
LA		x				x				x		x			x
ME		x		16 in 4 subj		x				x		x			x
MD		x				x			x		x	x			x
MA		x							x		x	x			x
MI		x		18			x		x	x	x	x			x
MN		x		12					x			x			x
MS	x	x		24	x							x			x
MO		x				x			x		x	x	2.5		x
MT		x		20	x					x		x			x
NE	x	x					CBT				x	x			x
NV		x		36						x		x			x
NH		x							x			x			x
NJ		x					x	x		x		x	2.5		x
NM		x		24		x		x		x	x	x			x
NY		x		6hrs in 4 sub			x		x			x			
NC	x	x		18	x	x		x	x		x	x		x	x
ND		x								x	x	x	2.5		x

OH	x		20			x				x	x		x
OK	x		24			x			x	x	x		x
OR	x	1yr	15	x	x				x		x		x
PA	x				x			x			x		
RI	x		21		x			x			x		x
SC	x				x		x	x			x		x
SD	x								x		x		x
TN	x				x		x		x		x		x
TX	x					x			x		x		x
UT	x								x		x		x
VT	x							x		x	x		x
VI	x			x				x		x	x		x
WA	x							x			x		x
WV	x				x				x	x	x		x
WI	x							x	x	x	x		x
WY	x								x	x	x		x

CERTIFICATION REQUIREMENTS AFTER *NCLB*

	Degree Req.			Hrs in	Testing Required			State	Cert. Cat.- Middle School				GPA	Spec.	Tchr	Rec.
	None	BA	MA	Subj.	PRAXIS	NTE	State	Eval	K-6	K-8	Mid	Sec		cours.	Prep	credit
AL		x					x	x	x		x	x			x	
AK	x	x		15	x					x		x		x	x	
AZ		x					x	x		x		x		x	x	
AR		x			x						x	x			x	
CA		x	1yr				x			x		x		x	x	
CO		x					x				x	x			x	
CT		x		24	x			x	x		x	x				
DE		x		9 in 3 areas	x			x			x	x				
DC		x		21	I & II				x			x			x	
FL		x		18			x		x		x	x	2.5			
GA	x	x		15	II			x			x	x	2.5	x		x
HI		x			x			x	x			x				
ID		x		44 in 8 areas						x k-9		x			x	x
IL		x		18			x			9		x			x	
IN		x		18	x			x	x		x	x			x	
IA		x		12					x	k-9		x		x	x	
KS		x				x				9	x	x	2.5	x	x	
KY		x*			x			x			x	x	2.5			
LA		x		22 in 2 areas	x			x		x		x	2.5		x	
ME		x		36 lib.arts		x				x		x			x	
MD		x			x				x		x	x			x	
MA		x		36			x		x		x	x			x	
MI		x		18			x			x		x			x	
MN		x		12	x				x		x	x		x	x	
MS	x	x		36 in 2	x					x		x	2.5		x	
MO		x		21	x				x		x	x	2.5		x	
MT		x		20						x		x			x	
NE		x			x				x		x	x		x	x	x
NV		x		36						x		x		x	x	
NH		x			x				x			x	2.5		x	
NJ		x		30			x	x		x		x	2.75		x	
NM	x	x		24			x	x		x	x				x	
NY		x		36			x		x			x		x		
NC		x		18	x			x	x		x	x	2.5		x	x
ND		x			x			x		x		x	2.5	x	x	
OH		x		24 in 2			x				x	x			x	

OK		x		24			x	x		x		x	2.5		x	x	
OR		x	1yr	15	x			x		x	x	x			x	x	
PA	x	x			x			x	x			x	3				
RI	x	x		21	x				x			x			x		
SC		x			x			x		x	x	x	2.5		x		
SD		x								x		x	2.6	x	x	x	
TN		x			x			x	x			x	2.5		x		
TX		x					x			x	x	x			x		
UT		x			x			x		x		x		x	x	x	
VT		x			x				x		x	x			x		
VA	x	x			x			x	x		x	x			x		
WA		x					x		x			x			x		
WV		x			x		x	x	x	x		x	2.5		x		
WI		x			x						x	x	2.75	x	x		
WY	x	x									x	x		x	x		

APPENDIX D
HOUSSE REQUIREMENTS

State	Prof. hrs	Cont Crses	Prof Dev.	Prof. Act.	Experience	Recognition	Subj Pts	Other	Evals	Pts..
AL	1/ hr.	1/ Hr. (40)	3/act. (36)	4 act(20)	2/yr for 10, 10+ (30)	2/recog. (4)		18 hrs in subj.		100
AK		3/sem hr.	5 /act.(10)	5 /act.	5/ yr (50)	5/recog	10/minor,maj	5 lang. not Eng.		100
AZ	1/hr(9)	1/sem. Hr.	5/ act	5 act(30)	10/yr (50)	5/recog(30)		24 hrs in subj		100
AR			1/hr.		18/yr (90)			Grad deg in subj		90
CA		6/hr	4/hr.	30/yr (90).	10/yr (50)		Grad.deg=60	Port=100, 20/obs		100
CO								Achmt. data		100
CT									Dt=hq	
DE	1/hr(30)	1/hr	6/90hrs		4/yr (32)	2/recog(15)				100
D.C.										
FL									Dt=hq	100
GA		Maj = 50		5/ act (60)	10 /yr (50)	5-30/act	MA=10,PhD=10			100
HI		3/hr	4/hr	5/act	9/yr (45)	5/recog (30)				100
ID								Cert +20 hrs =100		100
IL		10/ Hr.	5/hr		15/yr.(60)			18 hrs + 5 yrs=100		100
IN		5 Hr.(100)	1/day (5)	2/act (6)	5/ yr (50)	2/awd(6)		Mentor 15 pts. (30)		100
IA									St =hq	
KS	3/Hr.	3/. Hr.	5/ act.	5 / act	9 /yr (45)	5/act (30)				100
KY		3/Hr. (87)	5/act. (45)		3 /yr (45)	5/act (35)				90
LA	15/hr.	15/ Hr	1/hr	1/ hr				Mentor = 30/tchr		90
ME	1/hr	1 / hr	3/act	5/ act	10 yr (50)	10/recog				100
MD		1/hr(min 30)	1/hr (10)	1/act (10)	4 /yr (50)		MA=100			100
MA	15/hr	15/hr BA,	1.5/hr (10)			Conf.=30	MA=45,PhD=90	curri.dev=30/unit		120
MI		6 hrs=90						Obs. + Port. =90		90
MN	5/hr	5/cr.(50)	3 hrs=1	1/3hrs(40)	10yr (50)	5-15/act.	Adv. deg=50	Ach.-20 to 50		100
MS		21 hrs.=hq						Prof. Dev. Inst		
MO		21 hrs.=hq						Certified = hq		
MT								Lic. in gr level =hq		
NE	6/yr							Mid gr. endmt = hq		
NV	15/hr	15/ hr	15/ hr	15/ hr			Adv. Deg=150			150
NH								Self assessment		
NJ		2/ 3hr(4req.)		1/act.(6)	1/ yr. (4)			8-15 yrs.=2 ,more=3		10
NM		18 hrs=req			5 yrs (req)			Local panel obs.		
NY			2/hr (50)	10/act(50	15/yr (50)		10/3hr.Grad(50)			100
NC								Cont. stnds=hq		
ND		3/cr.(100)	2/act.(20)	2-4/(20)	3/yr (30)	5/awd(20)	adv. deg =100			100
OH			90hrs=100				adv.deg =100			100
OK		4/hour	1/yr `81-86	10/act(20)	3/yr (49)	10/awd(20)		St. tests/comp=10/		100
OR		16 hrs+G			3 + yrs +D					

PA		1/hr (22)	1/30 hrs (12)	1-6/act	2/yr (12)	1- 2/recog		Tutor 30 hrs=2 (2)		30
RI		3/cr	5/act/yr	5/act/yr	2/yr (24)	20/act (20)				100
SC							MA =hq		St=hq	
SD					3 yrs =hq					
TN	2/ hr.	2/ hr (40)	2/6hrs	2/yr/act	5/yr (40)	2/yr/awd		TVAAS -at mean =h.q.	10/yr	100
TX		1/cr	1/15 hrs.		1 pt/yr. (12)					24
UT		1/cr	1/CEU		1/yr			Subj. endmt req. + pts		10
VT	3/hr(15)	5/hr	5/15hrs	3/act	5/yr (50)					100
VA		30/ hr	1/hr(180)	5/day(45)			Adv.deg.=180	5/obs. (45)		180
WA									St=hq	
WV									St=hq	
WI								Certif. = hq		
WY		5/ hr		5/act (15)	5/yr. (50)	5/awd(15)				100

* Numbers in parentheses indicate the maximum points that can be earned in this category

Appendix E

University of New Orleans Human Subjects Approval

University Committee for the Protection of Human Subjects in Research
University of New Orleans

Campus Correspondence

Jean Pinney
Dr. Peggy Kirby, faculty advisor

1/28/2005

RE: How the 50 states are meeting "Highly Qualified" teacher component of the NCLB

IRB#: 02jan05

The IRB has deemed that the proposed research project is now in compliance with current University of New Orleans and Federal regulations.

Be advised that approval is only valid for one year from the approval date. Any changes to the procedures or protocols must be reviewed and approved by the IRB prior to implementation. Use the IRB# listed on the first page of this letter in all future correspondence regarding this proposal.

If an adverse, unforeseen event occurs (e.g., physical, social, or emotional harm), you are required to inform the IRB as soon as possible after the event.

Best of luck with your project!
Sincerely,

Laura Scaramella, Ph.D.
Chair, University Committee for the Protection of Human Subjects in Research

University Committee for the Protection of Human Subjects in Research
University of New Orleans

Form Number: 02JAN05

(please refer to this number in all future correspondence concerning this protocol)

Principal Investigator: Jean Pinney Title: Doctoral Student

Faculty Supervisor: Peggy Kirby *(if PI is a student)*

Department: Educational Administration College: Education

Project Title: How the 50 states are Meeting "Highly Qualified" Teacher Component of the NCLB

Date Reviewed:

Dates of Proposed Project Period From 01/01/05 to 05/01/05

**approval is for one year from approval date only and may be renewed yearly.*

Note: Consent forms and related materials are to be kept by the PI for a period of three years following the completion of the study.

Approval Status	Date
☐ Full Committee Approval	
☒ Expedited Approval	12-10-04
☐ Continuation	
☐ Rejected	

☐ The protocol will be approved following receipt of satisfactory response(s) to the following question(s) within 15 days:

Committee Signatures:

Laura Scaramella, Ph.D. (Chair)

Pamela Jenkins, Ph.D.

Anthony Kontos, Ph.D.

Richard B. Speaker, Ph.D.

Gary Talarchek, Ph.D.

Kari Walsh

L. Allen Witt, Ph.D.

Appendix F

Letter to Participants

UNIVERSITY of NEW ORLEANS

DEPARTMENT OF EDUCATIONAL LEADERSHIP,
COUNSELING AND FOUNDATIONS

2000 Lakeshore Dr.
348 Bicentennial Education Ctr.
New Orleans, LA 70148

January 24, 2005

Teacher Education and Certification Office
Alabama State Department of Education
P.O.Box 302101
Montgomery, Alabama 36130

Dear Sir or Madam:

My name is Jean Pinney and I spoke to you recently regarding my doctoral dissertation. I am a doctoral student at the University of New Orleans and my major professor is Dr. Peggy Kirby. Dr. Kirby may be reached at (504) 280-6661. I am researching the *No Child Left Behind* Act of 2001 and middle school teachers. As per our phone conversation I have enclosed the questionnaire regarding the "highly qualified teacher" component of NCLB and how it is being handled in your state. I would appreciate you completing the questionnaire and returning it to me by February 15th in the enclosed envelope. The data collected in this project will be used for dissertation research. The dissertation is a descriptive study on how the 50 states are meeting the "highly qualified" component of the *No Child Left Behind Act* of 2001. Tables with every state will be created for each question and analysis will be done based on the data entered into the tables.
Thank you for your help in this matter.

Sincerely,

Jean Pinney

Jean Pinney
Doctoral Candidate
University of New Orleans

VITA

Jean Pinney was born in Charleston, West Virginia but grew up in New Orleans, Louisiana. She has traveled around the country teaching in 9 different states. She began as an elementary school teacher but found her true love in middle school education. She has served as a Title I facilitator, math teacher, science teacher, and computer literacy teacher. Currently she is the assistant principal of a middle school in the suburban area of New Orleans.

Ms. Pinney earned her bachelor's degree from Stetson University and her master's degree in Curriculum and Instruction from the University of Houston with an emphasis on reading/language arts. Further education from Nicholl's State University yielded certification in administration.