HOW FACTORS OF ARIZONA’S RURAL DISTRICTS IMPACT THE
IMPLEMENTATION OF MODELS OF PROFESSIONAL DEVELOPMENT
REQUIRED BY NO CHILD LEFT BEHIND

by

Frieda Jane Bingenheimer-Rendahl

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DEDICATION

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ABSTRACT

Federal legislation, No Child Left Behind (NCLB, 2001), has brought the call for high quality and excellence into every aspect of education, including professional development. The links between teacher learning and student learning are well documented. Teacher skill is one aspect influencing student growth; hence, professional development provides a path to the goal of NCLB - increased student achievement. However, it is a long way from policy decisions to implementation in local districts; hence, the professional development requirements of NCLB face challenges to implementation. One of the factors affecting NCLB policy implementation at all levels is the capacity of schools and districts to implement policies as they are intended (Cooper, Fusarelli, & Randall, 2004; Heck, 2004; Odden, 1991). Especially in rural districts, factors of isolation, poverty, and size may restrict the implementation of policy requirements (Jimerson, 2004; Reeves, 2003). This policy impact study used qualitative methods to look at the question, “How Do Factors of Arizona’s Rural Districts Impact the Implementation of Models of Professional Development Required by NCLB?” Information was gathered through the use of document analysis, site-visits, and semi-structured interviews.
CHAPTER 1
OVERVIEW OF THE STUDY

Introduction

Throughout the United States, there is wide variance in the professional development provided by states and school districts for district personnel. Many districts already provide excellent professional development programs for practicing teachers. Other districts provide professional development programs acceptable in the past but no longer considered sufficient since the passing of the federal law, No Child Left Behind Act (NCLB, 2001), such as short-term, one-day workshops (Hirsch, Koppich, and Knapp, 2000). Further, some states and districts have paid little attention to guiding the professional development of their experienced personnel. To address these inequities and encourage high-quality professional development in all schools throughout the United States, NCLB requires states to define high-quality professional development and encourages the implementation of such practices within every school (State Department of Education, 2005).

However, this requirement may not reach fulfillment due to individual district’s practice.

“Planning and scheduling for the NCLB’s professional development requirements is a local responsibility which must be achieved through the development and implementation of the LEA’s [local educational agency] Professional Development Plan (PDP) required under section 100.2 (dd) of the Commissioner’s Regulations” (State Department of Education, 2005).
Educators in rural districts throughout the United States may find it particularly difficult to implement extensive programs of professional development.

Across the United States, rural school districts—public districts that have qualified for funds under the Small, Rural School Achievement (SRSA) Program and have a locale identification code of 7 in the National Center for Education Statistics (NCES) Common Core of Data (CCD) and are not served by a metropolitan area of more than 2,500 people as determined by NCES (U.S. Department of Education, 2000)—face similar challenges in the implementation of No Child Left Behind (NCLB) as shown in research conducted by the United States Government Accountability Office (GAO, 2004).

- Rural school districts report a large enrollment of economically disadvantaged students.
- More rural districts than urban districts state that school size affects ability to implement student proficiency requirements.
- Rural school districts are more likely than urban districts to report difficulties in recruitment and retention of highly qualified teachers.
- Rural districts indicate that limited personnel prevent release of teachers for conferences and professional development considered necessary to comply with NCLB requirements.
- Funding for implementation of NCLB requirements often stretches budgets of small and rural districts.
Even with state and Education [U.S. Department of Education] assistance, a majority of the rural districts surveyed reported that their implementation issues have not been fully addressed. (pp. 4-7).

The State of Arizona has many rural districts with challenges similar to those reported above, plus additional obstacles caused by the local physical, political, and social environment of individual districts that may prevent complete implementation of NCLB requirements. Of interest in this study was the implementation of professional development practices as required by NCLB in Arizona’s rural districts.

In short, the models of professional development required by federal law, (NCLB, 2001) must be site-based, job-embedded, sustained, and research-based. (The official rendering of the definition as contained in Title IX, Part A, Section 9101 of the No Child Left Behind Act, 2001, is found in Appendix A.) Research has indicated a “critical link between improved student learning; and the professional learning of teachers” (National Staff Development Council [NSDC], 2001, p. 10). There is a link between teacher learning and student learning; therefore, involving teachers in professional development programs is a means to raise student achievement levels. Because approximately one-fourth of Arizona’s schools are in rural communities (Arizona School Board Association [ASBA], 2004) and rural schools have difficulties meeting NCLB requirements (GAO, 2004), the question arose as to what extent teachers in these communities have access to the concept of professional development required by NCLB. This qualitative policy impact study looked at the current reality of implementation of professional development models required by NCLB in Arizona’s rural districts.
Purpose of the Study

The purpose of this study was to determine how teachers in rural school districts in the State of Arizona were impacted by and able to implement the models of professional development required by NCLB (2001). The State of Arizona has characteristics that may hinder the implementation of research-based strategies of professional development as required by NCLB, that is, isolation of school districts and severe poverty (U.S. Census Bureau [USCB], 2000). This is further complicated by lack of state funding (Johnson & Strange, 2005). In general, many rural districts have difficulty recruiting and retaining high-quality teachers (Reeves, 2003, p. 10), and this is also evident in Arizona (Johnson & Strange, 2005). Hence, the models of professional development called for in NCLB and described in Chapter 2 of this paper provide an opportunity for teachers in rural districts to increase their skills and knowledge, impact student achievement, and address problems related to retention of high-quality teachers. Many rural districts are located in pockets of poverty (GAO, 2004)—such an environment requires that teachers be highly skilled in order to meet the challenges of helping students overcome deficits that develop because of the environment. There is much research to support the concept that effective teaching is an important aspect in this battle to overcome disadvantages students confront during the learning process (Crowley, and Meehan, 2002; Moore and Esselman, 1994; Schonwetter, Clifton, and Perry, 2002). Hence, helping teachers become more effective through professional development, as called for in NCLB, will also increase student achievement.
Statement of the Problem

It seems that “school reform” has been a cry of American politicians, the press, and the public almost since the first school door was opened. "For over a century and a half, Americans have translated their cultural hopes and anxieties into demands for public school reform” (Heck, 2004, p. 3). The most recent iteration of the Elementary and Secondary Education Act (ESEA, 1965) popularly called No Child Left Behind NCLB (2001), has brought school reform to every aspect of education (Superintendent of Public Instruction, 2006). Further, “NCLB was passed with the understanding that the provisions in the law would improve public schools in all locales” (Jimerson, 2005, p. 211). An important section of NCLB focused on professional development as a means of reforming schools and improving student achievement – the goal of the law. However, policy is not always implemented as intended. “Policies, no matter how well designed, must be implemented successfully to achieve their intended effects” (Cooper, et al., 2004, pp. 83-84). The fact that proper implementation does not always occur was shown during earlier periods of educational reforms pushed by federal and state governments. As Odden (1991) stated,

When regulatory structures were created during the 1970s to give greater clarity to the intent and acceptable operations of the new federal and state governmental programs, there was considerable analysis that showed the initial weak impact these regulations had on local behavior…And in the early 80s, seasoned implementation researchers concluded that it was difficult, if not impossible, for
state or federal government programs to garner the interest, effort, and commitment of local educators (pp. 1-2).

Similar experiences are greeting the implementation of NCLB (Center on Education Policy [CEP], 2005). Cooper, et al (2004) stated that implementation is what takes place between the enactment of the law and the intended or unintended consequences of the law. Whether such policies reach the teachers depends upon many variables. Knapp, Stearns, Turnbull, David, and Peterson (1991) noted contexts that shape the implementation of policy are “the local community and the state….The demography, economy, and setting of the state also have considerable—though less direct—influence on the school and district” (p. 110). These contexts underlie a current variance in implementation of professional development practice outlined in NCLB (2001) similar to implementation discrepancies Odden (1991) noted in earlier reform implementation. Recent reports implied there is little conformity or commitment to implementing the concept of professional development required by NCLB. These reports gathered by the Education Commission of the States (ECS, 2004) confirmed that environment affects implementation:

Typically, there is little coordination or evaluation of the diverse state- and district-funded programs that constitute teacher professional development; in many cases, it is difficult even to determine how much is spent on professional development from year to year, let alone how well the money is spent. Providing teachers with high-quality professional development is particularly challenging for rural schools and small districts. (p. 70)
The above challenges exist because rural districts have a variety of problems, many of which stem from limited financial resources (North Central Regional Educational Laboratory [NCREL], 2004). With the implementation of NCLB (2001) rural districts will be under pressure to offer more professional development to help teachers develop instructional expertise to meet the demands of NCLB” (Jimerson, 2004, p. 5). In rural districts that are already financially strapped due to low enrollment, local poverty, and an inability to take advantage of economy of scale, the addition of professional development programs may be a serious burden (GAO, 2004). For this and other reasons professional development practices may not reach teachers in rural districts (Reeves, 2003; GAO, 2004; Jimerson, 2005). This study was designed to explore the implementation of professional development in rural districts in Arizona under the requirements of NCLB. The models of professional development required by NCLB include several components, as noted in Appendix A. Current professional development literature summarized these components as follows:

- Research-based: Professional development programs used in educational settings must be based on valid, reliable research showing a link between the teacher participation in the program and increased student achievement.
- Site-based: Site-based programs take place within the context of the individual school setting and are focused on the needs of the participating school.
- Job-embedded: Professional development becomes a part of every teacher’s day and is focused on the improvement of student achievement within the classroom setting.
Sustained: Effective professional development programs are on-going, intentional, and systemic (NSDC, 2001; Guskey, 2000).

Research Questions

This qualitative policy impact study researched the issue of how factors of Arizona's rural districts impact the implementation of models of professional development required by No Child Left Behind. Drawing on information from related literature and other studies, this general question subsumed related questions, as follows:

- How are rural districts implementing the requirements for professional development outlined in No Child Left Behind (NCLB, 2001)?
- What models of professional development were used in the district(s) before the implementation of NCLB policies?
  - Have there been changes in professional development strategies used in rural districts since the implementation of the law?
  - Which of the models of professional development that are required by NCLB are reaching rural districts?

Summary of Methodology

To answer these questions, the researcher used qualitative methods of site visits, face-to-face interviews, and document research to compile information for cross-case analysis (Miles & Huberman, 1994). Then data were collected in order to draw conclusions based on multiple factors that might inhibit or encourage policy implementation related to professional development within rural districts in Arizona. Prior to cross-case analysis single-case analysis was completed using matrixes and
summary tables to identify themes and patterns within cases. Comparative and contrast tables were then developed to identify themes and patterns apparent in all cases.

Finally, to generate meaning and relate the themes and patterns of factors that affected implementation to the actual implementation of models of professional development required by NCLB (2001), a method of ordinal placement was devised for each factor and then compared and contrasted across cases. Written descriptions were then derived from this visual analysis to arrive at conclusions related to the research questions.

Definition of Terms

Terms used in this study are listed below.

Locale Code: “The Locale codes were developed by NCES in the 1990s (and revised in 2002) for general description, sampling, and other statistical purposes. This coding system is based on both the proximity to metropolitan areas and on population size and density. As a further aid to users, these codes are assigned based on the addresses of the individual schools and are assigned at the school level. Thus, it is possible to identify areas within school districts as being different types of localities” (NCES, 2002, electronic version).

Performance Labels: State assigned categories of school performance as determined by the Arizona Department of Education (2006). Categories are as follows:

Failing: School performance has been designated as underperforming for three consecutive years.
**Underperforming**: School performance has not made adequate growth above the baseline for the past three years.

**Performing**: School performance was at or above state baseline for the past three years.

**Highly Performing**: The school performance has been at a Performing level for the past three years and meets the performance threshold required for Highly Performing schools, with a certain percentage of the students at “Exceeds” category on the Arizona Instruments to Measure Standards (AIMS) for the last three years.

**Excelling**: The school performance has been at or above the state baseline and made adequate growth during the past three years and meets the performance threshold required for Excelling schools, with a certain percentage of the students exceeding the standards on the Arizona Instruments to Measure Standards (AIMS) for the last three years.

**Professional development**: Professional development leaders define professional development for teachers as, “The processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students” (Guskey, 2000, p. 16).

**Professional development model required by NCLB**: In short, professional development is site-based, job-embedded, sustained, and research-based. (The official rendering of the definition as contained in Title IX, Part A, Section 9101 of the No Child Left Behind Act, 2001, is found in Appendix A).
Research-based: Programs that are research-based must show evidence of research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs. (The official rendering of the definition as contained in Title IX, Part A, Definitions of the No Child Left Behind Act, 2001, is found in Appendix A).

Rural school districts: As used in this paper, the term applies to public school districts in Arizona that have qualified for funds under the Small, Rural School Achievement Program (SRSA), have a locale identification code of 7 in the National Center for Education Statistics Common Core of Data (NCES, 2005a), and are not served by a metropolitan area of more than 2,500 people as determined by NCES. To qualify for these federal monies, the district must have Average Daily Attendance (ADA): at all of the schools served by the Local Educational Agency (LEA) is fewer than 600 students; or each county in which a school served by the LEA is located has a total population density of fewer than 10 persons per square mile; and all of the schools served by the LEA are designated with a school locale code of 7 or 8 by the Department's National Center for Education Statistics (2005b).

Rural, Outside CBSA: Any incorporated place, census designated place, or non-place territory not within a CBSA or CSA of a large or mid-size city and defined as rural by the Census Bureau.

Rural, Inside CBSA: Any incorporated place, census designated place, or non-place territory within a CBSA or CSA of a large or mid-size city and defined as rural by the Census Bureau. Or the Secretary has determined, based on a demonstration by the
LEA and concurrence of the State Education Agency (SEA) that the LEA is located in an area defined as rural by a governmental agency of the State (U.S. Department of Education, 2001).

State Solutions Team:- A.R.S. § 15-241 (P) (as amended) states, in part, “the superintendent of public instruction, based on need, shall assign a solutions team to an Underperforming School, a School Failing to Meet Academic Standards or any other school pursuant to a mutual agreement between the Department of Education and the school, comprised of master teachers, fiscal analysts and curriculum or assessment experts who are certified by the state board of education as Arizona academic standards technicians.” The assignment of Solutions Teams to Underperforming schools supports the Superintendent’s mission to provide high-quality service to all schools.

One team leader and one or two team members, depending upon the size of the school to be visited, comprise a Solutions Team. As a Solutions Team these individuals will be official representatives of the Superintendent of Public Instruction and the Arizona Department of Education. (ADE, 2006)

Assumptions and Limitations of the Study

Assumptions

In this study, it was assumed that the models of professional development required by NCLB (2001) referred to several current approaches to professional development that fell within the definition of the law as site-based, job-embedded, ongoing, research-based practices. These practices have been described in contemporary professional development literature (Guskey, 2000, Joyce and Showers, 2002; Sparks and
Loucks-Horsley, 1989) and include, but are not limited to individually guided activities, observation and assessment, involvement in a development or improvement process, training, inquiry or action research, study groups and mentoring. These models are summarized in Chapter 2.

A second assumption was that the concept of professional development outlined in NCLB will have a positive effect on student achievement in all contexts, as indicated by earlier research (Hair, Kraft, and Allan, 2001; Joyce and Showers 2002; Killion, 2002).

It was also assumed that rural districts must address similar issues as urban districts yet have problems that are related to their particular environments, such as accountability issues and difficulty retaining high-quality teachers (Black, 2002; GAO, 2004; Reeves, 2003).

**Limitations**

One of the limitations of this study was that it was a snapshot of the implementation of the concept of professional development described in NCLB (2001) rather than a longitudinal study. As a snapshot of the implementation five years after the passage of the law, it could only deal with current realities and did not indicate that districts will continue on the same path, positive or negative, in the future. The findings of this study can, however, tell us if NCLB “is doing what it is intended to do, if there are side effects, favorable or otherwise, and if there are blocks to implementation” (First, 2006, In Press).

The sampling in this study was purposive and not random. Also, the sample included a narrow section of rural schools. These characteristics may be limiting because
there are many rural districts in Arizona with only one school and enrollment of less than 100 children. The experiences of implementing models of professional development consistent with NCLB (2001) requirements may be very different in these situations.

Another limiting factor was that the sample was small, and therefore findings may not generalize to other situations. As noted by Levin (2004), “Social science knowledge tends to be tentative and contextual, whereas users want certainty . . . its impact is always mediated by larger social and political process” (pp. 2-3). However, it should be noted that, despite the small sample size, findings compared with previous investigations of like samples. Thus, information from the study may be applied to like samples.

This study was limited to evaluation of professional development implementation within any given district by a leader within the district. A more in-depth picture could be portrayed by including attitudes and opinions of other stakeholders.

Also, data may include prejudicial factors because they were self-reported. To mitigate prejudicial factors, the researcher kept careful field notes in the effort to achieve an unbiased description of each district and respondent.

As stated above, all steps were taken to ensure the limitations did not affect the generalization of this policy impact study.

Importance of Study

Through this qualitative policy impact study of the question, How do Factors of Arizona’s Rural Districts Impact the Implementation of Models of Professional Development Required by No Child Left Behind, it was possible to identify factors that impacted the implementation of models of professional development required by NCLB
(2001) in Arizona’s rural districts. This knowledge informs future practice in several ways as noted in the next sections.

Implementation of models of professional development were impacted by several factors. The factor having the most impact was the knowledge and commitment of leaders. Other major factors included funding and district size. A variety of other factors also affected some districts. This knowledge can impact the crafting of future policy to mitigate such obstacles of implementation.

It was discovered that rural districts in the study experienced varying degrees of success in implementing the models of professional development called for by NCLB (2001). All districts reported both negative and positive impacts during implementation. This information can inform state and district agencies decisions to grant further support or discourage current practice. In all districts in this study, student achievement increased as teacher exposure to professional development increased. Consequently, state and district agencies may wish to support current practices rather than stretch the capacity of a district by forcing implementation of different practices.

Districts in this study were negatively impacted by many factors. In spite of negative impact, every district made some progress toward implementation of models of professional development required by NCLB (2001). Experiences of these districts can provide encouragement and examples for similar districts within Arizona as well as other areas.

Currently, the literature focused exclusively on professional development in rural schools is limited. Therefore, this study added to the existing literature by reinforcing
early findings of the value of knowledgeable, committed leadership (Bolman, and Deal, 1997; Fullan, 2001; Hirsch, 1996; Olivia and Pawlas, 1999) in guiding the change process. Further, this study demonstrated through the experiences of the districts described and analyzed in later chapters, that it is possible to bring long-term, job-embedded, research-based professional development practices to rural districts.

This policy impact study was designed to support efforts in rural districts to provide research-based, job-embedded, site-based professional development for teachers as required by the law. By recognizing current practices and needs of rural districts, district and state agencies can evaluate the need for strengthening or altering present implementation strategies.

Summary

NCLB (2001) has brought educational reform directly into the classroom in several ways, including the arena of professional development. “It is currently believed that educational reform must take place at the school level” (Pratlow, 2004, p. 12), and site-based, job-embedded, on-going professional development is the embodiment of school level educational reform, as called for by NCLB. Further, Tucker and Johnson (2003) indicated that, “Professional development focused on student achievement is essential to creating high performing schools” (p. 1-1). It is the intent of NCLB that all schools, in all environments, participate in the concept of professional development required by NCLB. However, in a recent study, the GAO (2004) found this concept of professional development was not reaching everyone as intended. “Rural officials indicted that further assistance would be helpful for small districts that are experiencing
difficulties in providing teacher development opportunities” (Introduction). Teacher knowledge and skill are fundamental elements for improving student achievement (U.S. Department of Education Sciences, 2005). Therefore, implementation of the concept of professional development required in the NCLB in all districts is essential, both to meet the demands of the law and to help students reach higher levels of achievement.

Fifteen percent of the superintendents in rural districts throughout the United States reported that few professional development opportunities were available for their teachers (GAO, 2004). Because 25% of Arizona districts are small, rural districts (ASBA, 2004), an assumption was made that implementation of the professional development concept required by NCLB (2001) was meeting obstacles similar to those in other states. In an effort to ascertain Arizona’s experience regarding implementation of this requirement of NCLB, this policy impact study examined the current practices of implementation of concepts of professional development called for by the law in Arizona’s rural districts.

Following chapters address further aspects of this qualitative impact study. Chapter 2 explores current literature as it pertains to rural districts in general, as well as Arizona, professional development practices, the federal law, No Child Left Behind, and theories that informed the study. In Chapter 3, the research design, questions, and population of the study are addressed. Chapter 3 also describes the instruments and procedures used to gather data, data analysis, limitations, and a summary of methodology. In Chapter 4 the findings of the study are delineated and explored, and
Chapter 5 draws conclusions and makes recommendations based on the findings reported in Chapter 4.
CHAPTER 2
LITERATURE REVIEW

Introduction

This chapter focuses on the current literature as it pertains to rural schools, professional development, the federal law, No Child Left Behind (NCLB, 2001), and theories applicable to this policy impact study. Theme 1 of this chapter describes the general characteristics of rural schools and the impact of these characteristics on the implementation of policy and practices.

Theme 2 is an exploration of current writings on professional development practices as required by NCLB. This section includes principles of high-quality professional development as set forth by the U. S. Department of Education (2001) and a discussion of the National Staff Development Council’s standards for staff development (2001). Various approaches to models of professional development are also described.

The background and evolution of the federal law, No Child Left Behind (2001), as it relates to education and its influence on current professional development practices in school districts throughout the United States is explored in Theme 3. Finally, Theme 4 summarizes theories that inform this policy impact study. These theories include Systems Theory, Equity Theories, and Institutional Theory.

Theme 1: Rural Schools

Across the United States, a little more than 40% of the school population attended public schools in rural areas or small towns (NCES, 2001), and many of these rural schools were very successful according to Williams (2003) who said, “In some
places rural students perform at or above the levels of their non-rural peers on standardized tests. Indeed, on average, rural children outperform non-rural children on math tests” (p. 3). In state and national testing, students in rural schools perform at least as well as their urban counterparts, and in some cases, the characteristics of rural education are a great benefit to students (Johnson, 2004). “The success of rural education is linked with what makes rural and small town America unique. The size of the communities contributes to the strong connection among rural schools, educators, parents and communities” (National Education Association [NEA], 2005, ¶ 3). Rural schools exist in every state, and although each is unique, all rural districts have some similar characteristics.

*Characteristics of Rural Districts*

- School population in rural districts tended to be small. Throughout the U.S., the average number of students enrolled in rural districts was less than 400.
- Rural schools were often located in geographically isolated areas.
- Rural districts were under serious financial pressure.
- Rural districts were often, but not always, located in areas of high poverty, with large concentrations of minority students.
- Local control had a strong influence in rural districts.
- Some rural districts were facing declining enrollment, and others were facing rapid growth and changing ethnicity. (Jimerson, 2004; NCES, 1997; NCES, 2005b; NCREL, 2004; NEA, 2005, Reeves, 2003)
This information, as it applies to Arizona’s rural schools, was supported by the 2005 report, "Why Rural Matters" (Johnson & Strange, 2005), which enumerated several characteristics of Arizona’s rural schools:

- 10% of Arizona’s public school students attended rural schools,
- high rural poverty,
- demographic challenges,
- culturally diverse student populations,
- high rates of English language learners,
- per-pupil funding on instruction was among the lowest in the nation, and
- Arizona’s National Assessment for Educational Progress (NAEP) scores and graduation rates were also among the lowest in the nation.

Benefits of Rural Education Communities

Rural school districts have faced many difficulties, yet such schools have contributed to the educational richness of America. America’s rural population has demonstrated a “can-do” spirit—“Rural people typically display innovation and creativity when faced with tough challenges” (D’Amico, 1995, p. 2); hence rural educators have originated many of today’s best practices.

Historically, rural schools have offered unique benefits and attributes – for educators, students and communities. Rural and small town schools pioneered many successful education reform tools in widespread use today:

- Peer assistance
- Multi-grade classrooms
A recent study of Nebraska’s rural schools (Johnson, 2004) determined that one of the pluses of rural schools was their small size. Johnson found that small schools reduced the harmful effects of poverty on student learning. “Smaller school systems do an excellent job of cutting poverty’s power over student achievement on national assessments of both reading and mathematics, . . . at every grade level tested” (p. 5). The reason for success in overcoming poverty in rural schools was likely the positive aspects of “small.” In a study of island schools on the United States opposite coasts—New Haven Island off the coast of Maine and Orcas and Waldon Islands off the coast of Washington—Yaunches (2004) found,

In these two schools, the same positive characteristics intrinsic in most small rural schools across the country are readily apparent: a sense of community; flexible learning environments; more one-on-one time between teachers and students, meaning all students are known well; and, few discipline problems (p. 2).

Yaunches (2004) concluded that for rural schools, their “strength is their place” (p. 5), but the very characteristics that provided the strength could also provide obstacles.

**Characteristics of Rural Districts Affecting the Implementation of the Concept of Professional Development as Required by NCLB**

The characteristics of rural schools noted above affect all aspects of schooling in both positive and negative ways. An area of negative impact is the implementation of
state and federal policies such as implementing the concept of professional development required by NCLB (2001).

The demographic characteristics of rural schools and districts affect the availability of funding and access to programs, services, and training opportunities. This lack of access plays a large role in the ability of rural districts to build local capacity to comply with NCLB. (Reeves, 2003, p. 3). The impact of each characteristic on policy implementation is described in the sections below.

*Small enrollment.* Small enrollment can impact implementation of policies and, in particular, the concept of professional development required by NCLB (2001) in several ways. When there are fewer students, there are fewer teachers; this puts extra demands on rural districts that make it difficult to meet NCLB standards for implementation of professional development. One serious problem in rural districts is the recruitment and retention of highly qualified teachers. Reasons for this include the fact that teachers must teach multiple subjects, but few are certified in multiple subjects, salaries are low, and geographic isolation is not an attractive environment for many people. The concept of professional development required by NCLB and the approaches of professional development that fit this model, described in this paper, are suitable for schools of all sizes (Black, 2002; Guskey, 2000). However, such versions of professional development require opportunities for training that are not always available in small districts. Fifteen percent of rural district superintendents reported having few professional development opportunities for teachers. Furthermore, limited personnel made it difficult to release teachers and administrators to attend conferences and receive training that
might help them address student proficiency goals. (GAO, 2004). Teachers in rural districts are missing opportunities for personal growth both on a professional and a personal level if the concept of professional development required by NCLB does not reach them. Eventually, this will impact classroom practices and student achievement.

Geographical isolation. It is common for rural districts to be isolated geographically from other schools in the area, as well as areas of denser population. This means teachers who wish to engage in collegial professional development must travel great distances to do so, sometimes having to travel by plane to take advantage of professional development opportunities (GAO, 2004). Such professional isolation can exacerbate teacher recruitment and retention problems (NCREL, 2004).

Financial pressures. Falling enrollment, funding formulas, and requirements to implement new programs impact rural districts and affect every area of schooling including professional development. NEA (2005) stated, “Many rural school districts are under funded and some lack a steady revenue stream” (p. 5). Such financial pressures affect salaries, curriculum, transportation, supplies, and facilities. Now meager finances are required to stretch even further. “In addition, districts will be under pressure to offer more professional development to help teachers develop instructional expertise to meet the demands of NCLB” (Jimerson, 2004, p. 5). Rural districts work hard to find alternatives to shrinking finances and greater demands, often by eliminating classes such as art and changing staffing patterns (D’Amico, 1995). Such practices do not suggest an increase in professional development opportunities that follow the model required by NCLB (2001).
High levels of poverty and concentrations of minority students. Because about half of the funding for rural districts comes from local sources (NCES, 1997, p. 1), the fact that large numbers of rural districts are located in areas of poverty increases the financial stress on rural districts. Further, many rural areas have large minority populations. A more diverse student body presents schools and teachers with new learning opportunities, but it can also bring challenges. “Poverty and low levels of educational attainment mean that many minority children, in rural communities, are at risk” (Rural School and Community Trust, 2003, p. 1). Students of poverty from diverse backgrounds are the very students NCLB (2001) is intended to help. “This is the first time the United States has ever made even a rhetorical, much less a legislative commitment to the ideal that public schools should educate every single child to perform proficient,” (Mizell, 2003, p. 12). Reaching this goal requires teachers to have the knowledge and skills to provide best practices. This is what the concept of professional development required by NCLB is designed to provide.

Local control. Rural districts, especially those in small communities, become closely tied to the culture of the area. “Local schools are community-centering institutions, and local governance is an ingrained part of the culture” (Jimerson, 2005, p. 213). However, under NCLB (2001), schools become accountable to a hierarchy of governing agencies. Each state is required to set standards and require reporting from schools, districts, and counties. The state, then, is in turn responsible to the federal government. Consequently, local control becomes less and less evident and may
undermine the positive effects of better academics, behavior, and higher rates of participation common in small and rural schools (Rural School and Community Trust, 2003).

Changes in enrollment. Much of the recent growth in rural counties is due to minority migration, and most of it involves younger age groups. Another side of the problem is loss of enrollment in rural districts. Both scenarios cause problems for rural districts. As rural districts enroll more students, they must compete with suburbs and cities for highly-qualified teachers. “And when it comes to attracting teachers to a particular district, the rich often take from the poor” (Hardy, 1998, p. 1). All of the characteristics of rural school districts contribute to a lack of teachers in areas of the most need. Lack of funds, geographical isolation, an inability to offer professional development opportunities, severe poverty, and changing enrollments discourage teachers from joining the staff in rural districts (Jimerson, 2004; Johnson, 2004; NEA, 2005,).

Further, rural districts suddenly find a large percentage of new students are from minority groups. This makes it doubly hard to find minority teachers (Vail, 1998). Complicating the problem even more, increasing enrollment demands expansion in the budget areas of curriculum, facilities, and transportation. The opposite side of the problem, falling enrollment, brings with it a second set of circumstances.

Across the nation, schools are funded on a per-pupil basis, with the money designed to cover more than the cost of individual teachers. For districts that already face financial challenges, steady or sudden declines in enrollment can be fiscally devastating
(Cook, 2004, p. 3). In poverty-stricken rural districts, referendums can not raise needed funds, and teachers are laid off or schools close (Cook, 2004).

Circumstances Impacting Rural Districts in Arizona

To understand the researcher’s interest in the question posed in this policy impact study, it is important to first understand the circumstances in Arizona. There are many characteristics of the state that impact education. “The demographic characteristics of rural schools and districts affect the availability of funding and access to programs, services, and training opportunities. This lack of access plays a large roll in the ability of rural districts to build local capacity” (Reeves, 2003, p. 5).

Arizona is a state of contrasts, from its forested northern mountains to southern desert plateaus. The population, which rose by 40% between 1990 and 2000, qualified the state as the fastest growing in the union, numbers about 5.8 million (USCB, 2000). The population is concentrated along the I-10—I-17 corridor in the three largest cities; Tucson, located in the south central area (Pima County); Phoenix, the state capital and largest city, located near the center of the state (Maricopa County); and Flagstaff in the northern section (Coconino County). Much of the remaining area of the state is sparsely populated due to three factors: (1) large areas of the state, predominately in the northeast quadrant and the southwestern sections, have been set aside as reservation by federal regulation, (2) other sections have been declared national park land, and (3) some areas have forbidding terrain (USCB, 2000).

Culturally, Arizona is diverse with major cultural influences derived from the White, Hispanic, and American Indian races (USCB, 2000). Approximately 80% of the
population is Caucasian, and nearly 20% is Hispanic. Arizona boasts the third-highest population of Native Americans in the United States—in 1990 this population numbered 6% of the total population (Columbia Encyclopedia, 2005). A language other than English is spoken in 26% of the homes in Arizona as compared to 18%, on average, in the rest of the nation. Arizona residents engage in an expanding variety of employment from high-tech manufacturing in the more populated areas to subsistence farming in the reservation areas, causing a discrepancy of income distribution that leaves extensive areas in severe poverty. Overall, in the year 2000, the per capita income averaged $24,988—16% lower than the national average (USCB, 2000).

The total school population rose by 38% from 1991-2001, while nationwide, the average growth was 13%. In the school year 2001-2002, 210 separate school districts operated schools in the State of Arizona. Approximately 48% of those schools were in Maricopa County, with another 17% of the schools in Pima County. The remaining 14 counties split 35% of the schools, each gaining less than 5% (ASBA, 2004; NCES, 2001). Examples of the diverse environments of Arizona’s schools are described below:

- Schools in Arizona’s city of Nogales which borders Mexico’s city of Nogales,
- schools serving reservations such as the Hopi Indian schools on the top of mesas near Utah,
- schools that serve the U.S. Army’s worldwide communications center at Ft. Huachuca,
- schools isolated from the rest of Arizona on “the strip” north of the Grand Canyon,
• schools serving small communities interlaced among Arizona’s vast National
  Forests,
• urban, inner-city schools in central Phoenix and Tucson, and
• suburban schools serving Arizona’s “Silicon Desert” around Phoenix and
  Tucson (ASBA, 2004).

The scattered pattern of the schools, rapid growth, and pockets of poverty
throughout the state create difficulties, and the literature suggested that of Arizona’s
45,964 teachers (ASBA, 2004), those in Maricopa and Pima Counties have better access
to high-quality professional development than teachers in other counties. This is due to
factors of proximity, availability, cost of training, and chances for collegial follow-up—
all problems shared by small and rural districts in other parts of the United States
(Reeves, 2003). Still another complicating factor is Arizona’s low ranking per pupil
expenditure in the year 2002, at $5,278—72 % of the national average (ASBA, 2004;
NCES, 2005a).

Each of the above demographics provides its own impediment to implementation
of the concept of professional development required by NCLB (2001). Needs of
stakeholders, financial concerns and allocations affected by district size, transportation,
and cultural attitudes contribute to the political atmosphere into which the professional
development mandate of NCLB falls. Can implementation in rural districts be possible?
(American Association of School Administrators and National Association of State
Boards of Education, 2002).
Theme 2: The Concept of Professional Development Required by No Child Left Behind

Professional development has long been a part of every district’s responsibility to their teachers and support staff, but with the advent of NCLB (2001), the approach to professional development began to change. Before the enactment of NCLB, the Comprehensive School Reform Program (CSR, 2002) required United States schools to provide professional development that was based on innovative strategies and proven methods practice founded on reliable research. Approaches to professional development under these guidelines tended to be workshops, just long enough to whet a teacher’s appetite for a new strategy but not in-depth enough to provide the skill and knowledge to transfer the new strategy into the classroom. Such workshops can be uplifting, invigorating, and exciting, but they usually produce short-term results or none at all. As Easton (2005) acknowledged,

There is a place for speakers who come in for one presentation. They can be inspiring. They may shift minds with new information or a new perspective. They may reinforce the direction a school or district is taking, offering experience and expertise on school improvement. However, one-shot professional development seldom results in . . . results. (p. 54)

NCLB (2001) mandated a new approach that looks much different than the past. “Today, people believe that professional development should be targeted and directly related to teachers’ practice. It should be site-based and long-term” (Willis, 2002, p. 6). Specific programs of professional development are not outlined in NCLB, but the law mandated that programs be “high quality.” NCLB, Title IX, Section 9101(34) suggested
that certain characteristics would be included in the professional development programs
states and districts chose to implement. For a complete rendering of NCLB definitions of
high-quality professional development, see Appendix A.

Clarification of aspects of NCLB (2001) professional development can be found
in the U.S. Department of Education’s (2001) Professional Development Team design of
10 principles for research-based, high-quality professional development.

The Team's mission was to examine the best available research and exemplary
practices related to professional development, and to summarize the lessons
learned from this knowledge base in the form of principles that might inform
practitioners and policymakers across the country and guide the Department's
efforts in the area of professional development.(p. 1)

According to this set of principles, high-quality professional development,

- Focuses on teachers as central to learning yet includes all other members of the
  school community;
- Focuses on individual, collegial, and organizational improvement;
- Respects and nurtures the intellectual and leadership capacity of teachers,
  principals, and others in the school community;
- Reflects best available research and practice in teaching, learning, and leadership;
- Enables teachers to develop further experience in subject content, teaching
  strategies, uses of technologies, and other essential elements in teaching to high
  standards;
- Promotes continuous inquiry and improvement embedded in the daily life of
schools;

- Is planned collaboratively by those who will participate in and facilitate that development;
- Requires substantial time and resources;
- Is driven by a coherent long-term plan; and
- Is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning, and this assessment guides subsequent professional development efforts.

Further details of these principles are found in specific standards published by the (NSDC, 2001). The introduction to the standards proclaimed,

These standards are intended to be used by schools and school districts to improve the quality of their staff development. NSDC’s Standards for Staff Development recognizes that sustained, intellectually rigorous staff development is essential for everyone who affects students’ learning. The standards are grounded in research that documents the connection between staff development and student learning. (pp. 2-33).

The 12 standards are grouped according to the area of application. Context standards address the overall organization and the culture of the organization in which the learning will occur and provide a description of necessary structures and frameworks upon which to build. Process standards are directed at the how of professional development. These standards include the learning process and supporting data, evaluation, and research. Content-area standards address specific knowledge and skills
highly qualified teachers must acquire to ensure student success. (NSDC, 2001). A detailed list of NSDC standards is found in Appendix A. NSDC believed the standards could “inspire improved performance and provide guidance to superintendents, principals, and other staff development leaders as they plan and implement powerful professional learning experiences for all teachers and administrators” (Sparks, 2001, p. 2), thus providing and sustaining highly qualified teachers and therefore improved student performance to meet the accountability standards of NCLB (2001).

Approaches to Professional Development

Several approaches of site-based, job-embedded professional development designed to promote better student achievement were described by Sparks and Loucks-Horsley (1989), Guskey (2000), and Joyce and Showers (2002). These approaches to professional development met the model required by NCLB (2001); they were research-based, job-embedded, data-driven, on-going, and proven to enhance student achievement. The following section is an overview of seven approaches to professional development. This is by no means an exhaustive list, and models of high-quality professional development are many and varied.

*Individually guided staff development.* Lawrence (as cited in Sparks and Loucks-Horsley, 1989) offered the concept that individualized programs produce excellent results. In this model, the teacher determines personal needs and establishes the goal of professional development. A plan is then developed by the teacher, who chooses appropriate activities to attain the goal. This theory, discussed by Sparks and Loucks-Horsley (1989), is supported by Butler (2001). She stated, “The optimum role of the
adult learner in the learning situation is that of a self-directed, self-motivated manager of personal learning who collaborates as an active participant in the learning processes and takes responsibility for learning” (p. 3). Such self-motivated teachers continue to grow as highly qualified professionals and consistently bring new knowledge into their classroom, reaching all students and improving achievement for all.

Observation and assessment. Like the previous model of professional development, observation and assessment are based on personal needs and identify a goal and plan to meet these needs. However, this plan encourages follow-up and evaluation. It also underscores the positive aspects of observation. In 1982, McGreal (as cited in Sparks and Loucks-Horsley, 1989) suggested that observation was a powerful tool in teacher professional development. Observation and reflection are the basis of the currently popular peer coaching and mentoring strategies (NWREL, 2001). Evaluation, clinical supervision, and peer coaching make this staff development model particularly strong. Conferences help teachers reflect on their practices, setting goals and analyzing outcomes. Support, evaluation, and encouragement are offered by an individual, or group of peers, enabling the teacher to transfer the learning into the classroom. The components of evaluation and personal reflection help teachers to apply strategies that are significant to the individual situation. In this way, diverse needs of students can be met and raise the levels of achievement as required by NCLB (2001).

Involvement in a development or improvement process. This approach is based on studies conducted by Glickman (1986, as cited in Sparks, & Loucks-Horsely, 1989) who felt that when teachers engaged in activities such as curriculum development, they
grew in content knowledge and curriculum development skills. In this type of professional development, the problem is usually a group need that is filled by an action response, such as designing curriculum or meeting school achievement needs. In order to solve the problem, teachers must work collaboratively and acquire new skills and knowledge. Further growth comes about as the new program is implemented and assessed. Collaboration, as well as problem solving, provides support for all involved personnel, while encouraging high levels of performance. In this way, the staff members involved change a current culture, providing a better learning experience for large groups of students, thereby increasing achievement.

*Training.* By far, the most widely used of Sparks and Loucks-Horsley’s (1989) suggested programs is training (Joyce and Showers, 2002). Joyce and Showers indicated that training should include theory, demonstration or modeling of skill, feedback, and coaching. The content of training can be decided by a group of teachers or the administration but should provide skills that transfer directly into the classroom. Once training is complete, data should be gathered and analyzed to evaluate the effectiveness of the training opportunity. Joyce and Showers (2002), stated that the impact of training was largely dependent upon the scope, objectives, and quality of the training program. Training programs are most effective when student achievement data are collected and reviewed before and after implementation. In this way, new programs become research based and provide both staff and administration with proof of an increase in student achievement as required by NCLB (2001).
Inquiry or action research. The fifth method of professional development espoused by Sparks and Loucks-Horsley (1989) was based on the earlier work of John Dewey. Although it was supported by more recent research done by Sparks (1997), Joyce and Showers (2002), Hirsch (1996), and others, this form of learning for both teachers and students was first suggested more than 80 years ago (Sparks and Loucks-Horsley, 1989). In essence, inquiry learning follows the steps of inquiry science taught in every elementary science class. Teacher inquiry may be done as individuals, partners, or groups, and may be formal or informal. First, a problem of interest is identified, ways to collect data are explored, data are analyzed and interpreted, and changes are made according to the data outcomes. Then, the process begins again. “Through the collection and analysis of data, teachers gain useful insights that can inform and shape classroom practices” (NWREL, 2001), thus meeting the requirements of NCLB (2001), while providing a flexible, developing learning experience tailored to the current needs of diverse students.

Study groups. Guskey (2000) indicated the strength of study groups was that this approach “involves the entire staff in finding solutions to common problems” (p. 25). The major benefits of study groups are that they allow teachers to collaborate, build relationships, focus on teaching practices, and facilitate implementation of new programs and policies (Guskey, 2000; Murphy, 1999). Study groups are an avenue for breaking down isolation that many teachers feel and reinforce the concept that schools are learning communities. “When these individuals come together and focus on student learning, the range of knowledge, resources and experience they bring to the process are blended
together for a powerful impact on all of their students” (Murphy, 1999, p. 49). Study
groups are usually comprised of six or fewer people, and focus on factors of the school of
their own choosing. Often, study groups evaluate student work and produce lessons to
improve student learning and connect learning to standards (Carr, 2005).

*Mentoring.* The mentoring approach involves pairing an experienced teacher with
a less experienced teacher. “Mentoring offers a highly individualized approach to
professional development that can benefit both of the individuals involved” (Guskey,
2000, p. 28). Mentoring differs from peer coaching, mentioned above, in that in peer
coaching, teachers are considered equal; in mentoring, the more experienced will share
ideas for effective practice. (Earley and Bubb, 2004; Guskey, 2000; Joyce and Showers,
2002). Partnering new teachers with more experienced teachers provides security and an
advocate and reaps benefits for everyone. “Pairing your new teachers with a mentor is a
. . . key stopgap in preventing turnover” (Gabriel, 2005, p. 42).

The above summary of current beliefs about professional development for
teachers and the relationship to the all-encompassing goal of NCLB, improved student
achievement, provides a clearer picture of approaches to high-quality professional
development that fit the model required by NCLB. “Recently developed principles for
effective professional development emphasize the importance of a collaborative
environment where teachers and administrators develop common goals, share ideas, and
work together to achieve their goals” (Choy and Chen, 1998, p. vi).

In order to provide structures that use effective principles, Butler (2001) cited the
following guidelines:
- Designs are based on principles of adult learning and a full understanding of the process of change.

- Programs are conducted in school settings.

- Development takes place in more than one incident, and incidents are spaced over time; they are conducted long enough and often enough to assure that participants progressively gain knowledge, skill and confidence.

- Training is conveniently scheduled to avoid interfering with ongoing job requirements of participants, and

- Development activities take place at a convenient location.

- Trainers have credibility with the participants.

- Participants are involved in the planning, development, and presentation of the training program. (p. 6).

Each of the above approaches, some of which have been available for some time but were not, and still are not, commonly practiced, builds teacher skill and therefore affects student achievement. How does an educational institution choose the best for their situation? Easton (2005) suggested these guidelines based on NSCD standards:

- What is the context for the professional development experience?

- What specific attributes of a professional development process fit the context of the school or district, and

- What is the content and what do the data show? (pp. 56-57).

Connecting teachers in rural Arizona to the models of professional development described above appears to be a simple process. All of the approaches can be used by
small numbers of personnel, and many can be employed even if there is only one teacher in a school. Each of the approaches provides connection with other teachers—an important aspect of teaching in isolated rural areas and, once learned, these approaches require less financial resources than travel to workshops. However, the characteristics of rural Arizona provide substantial obstacles; such as distance, lack of personnel to replace teachers who wish to train in these approaches, and lack of funds for fundamental training.

Theme 3: Historical Context of No Child Left Behind and Professional Development

The Elementary and Secondary Education Act of 1965 (ESEA) was considered by many, including its signer, President Lyndon Johnson, to be the most momentous educational act in history (see Table 1). “No law I have signed, or will ever sign, means more to the future of America” (Johnson as cited in Kafer, 2001, p. 2). The law was designed to impact public education by bringing federal influence directly into the classroom through the method of funding. “Throughout most of the nation’s history, the federal government was not expected to play a major role regulating or directly financing schools” (Anderson, 2005, p. 2). Early practice established the state as the overseer of education, with the role of the federal government as one of indirect support. However, as time passed, the federal government learned to control education as they “fashioned educational policy to address certain perceived national interests…Categorical grants that were geared toward bringing about a particular educational emphasis became the method of allocation most relied upon” (Alexander and Alexander, 2001, p. 65). “Since the mid-
1950’s . . . the federal government has played an increasingly significant role in public education through a variety of judicial and legislative actions” (Christie, Fulton, Griffith, Ziebarth, and Walker, 2001, p. 3).

<table>
<thead>
<tr>
<th>Table 1</th>
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<tbody>
<tr>
<td><strong>Elementary and Secondary Education Act, 1965</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Title</th>
<th>Mandate</th>
</tr>
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<tbody>
<tr>
<td>I</td>
<td>Financial assistance for education for low income families</td>
</tr>
<tr>
<td>II</td>
<td>Federal assistance to schools for instructional materials</td>
</tr>
<tr>
<td>III</td>
<td>Assistance for supplementary services</td>
</tr>
<tr>
<td>IV</td>
<td>Educational research and training for school personnel</td>
</tr>
<tr>
<td>V</td>
<td>Grants to strengthen state departments of education</td>
</tr>
<tr>
<td>VI</td>
<td>To provide general guidelines for complying with the first five titles</td>
</tr>
</tbody>
</table>

Source: Rush and Freer, 2002, p.3

With the advent of ESEA these categorical grants focused on “specific needs rather than [providing] general aid to education” (Rush and Freer, 2002, p. 3). Funds allocated for public schools attained the primary purpose of establishing programs for culturally disadvantaged children, those who came from homes that fell below the poverty level. Mandates that came with the federal money granted by ESEA had a
profound impact upon the public school system of the United States, as shown in Table 1 (Alexander and Alexander, 2001; Rush and Freer, 2002).

Through the years, ESEA (1965) survived transformations that added more programs aimed at specific groups and extended the opportunities to use federal grant money for more children. Until recently, the most expansive of these transformations was the blending of the Education Consolidation and Improvement Act (ECLA) and ESEA in 1982 (Alexander and Alexander, 2001).

Programs added in the 1982 consolidation included:

1. pull-out programs, which removed students from regular classrooms for remediation;
2. add-on programs, which provided instruction at times other than regular school hours;
3. in-class programs, which delivered services in the regular classroom;
4. replacement programs, which provided all the education and training in a given subject area, usually provided by the regular classroom; and
5. school-wide programs, which approved services to all students within a school (McDill and Natriello, 1997).

The first signs of sweeping educational reform, currently in force, appeared in 1994 when the Clinton administration called for higher expectations and standards, school wide reform, accelerated curricula, and continual staff development. Other changes included more funding and more accountability (Rush and Freer, 2002).

Despite four decades of concentrated efforts and billions of dollars directed
toward the improvement of academic success for all students, personal observation of
classroom practice during the closing years of the last century suggested the public was not
happy with education in the United States. Professional educators were as unhappy as
the general public. Two years after President Clinton re-authorized all former mandates

Table 2

*Additional Responsibilities Added to the Elementary and Secondary Education Act*

*By No Child Left Behind (2001)*

<table>
<thead>
<tr>
<th>Title</th>
<th>Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Reading First, and Early Reading First</td>
</tr>
<tr>
<td>II</td>
<td>Preparing, training, and recruiting highly-qualified teachers and principals</td>
</tr>
<tr>
<td>III</td>
<td>Language instruction for limited proficient students</td>
</tr>
<tr>
<td>IV</td>
<td>School level programs such as community schools</td>
</tr>
<tr>
<td>V</td>
<td>Promote informed parental choice and ‘innovative programs’</td>
</tr>
<tr>
<td>VI</td>
<td>To provide general guidelines for complying with the first five titles</td>
</tr>
<tr>
<td>VII</td>
<td>Organizes programs for ethnic groups</td>
</tr>
<tr>
<td>VIII</td>
<td>Covers impact aid programs</td>
</tr>
<tr>
<td>IX</td>
<td>General provisions</td>
</tr>
<tr>
<td>X</td>
<td>Repeals, revisions, and amendments</td>
</tr>
</tbody>
</table>

Source: Anderson, 2005
and added reforms focused on higher student expectations, Hirsch (1996) complained, “...despite recent public pressure for school improvement, there has been little movement toward rigor in American education” (p. 2). Five years later, the re-authorization of a much changed and expanded ESEA to “a complex, multi-titled act with 10 Titles and some 125 Parts and Subparts” (Rush and Freer, 2002, p. 6) focused the spotlight on school and teacher accountability and has become known as No Child Left Behind (NCLB, 2001). Additions to earlier legislation are simplified in Table 2. “The federal government, long the sleeping giant in school policymaking . . . passed the most complex and comprehensive (and some would say intrusive) legislation in history” (Cooper et al., 2004, p. 295). NCLB “further expand[ed] the federal role in education and provide[s] the largest dollar increase ever in federal education aid” (First, 2003, p. 1). “The gradual expansion of federal assistance to schools laid the foundation for NCLB, grounding the apparently revolutionary aspects of the law in an evolutionary process” (Anderson, 2005, p. 6). The policies of NCLB set the stage for sweeping change of federal involvement in education in the future. “The law is now in the hands of educational leaders. How they interpret it and implement it will determine whether or not the spirit of the law helps those in our society who need it the most” (First, 2003, p. 5).

Crafting complex and all encompassing policies such as NCLB (2001) was a monumental task. Implementing the wide-reaching reforms required was no less a challenge, because they touch every aspect of and participant in education. It was especially difficult to implement the spirit of the law and produce educational reform in
rural areas where funding, distance, and poverty combined with lack of capacity (Rural School and Community Trust, 2000).

Theme 4: Theories that Inform this Policy Impact Study

Theoretical frameworks upon which this policy impact study was based included systems theory, which focuses on the role of the immediate environment in shaping policy (Cooper et al., 2004); equity (interest-group) theories, as “the politics of education at the state level is still a politics of interest groups” (Burlingame and Geske, 1979, p. 71); and neoinstitutional, theories which explored the concept that the states had a growing capacity to affect education through encouraging conformity through sets of rules that demanded accountability (Hoy and Miskel, 2005).

Systems Theory

Schools are open systems that are vulnerable to external pressures from their environment and are therefore “subject to larger social, political, and economic trends. Organizations must therefore reflect contemporary beliefs and expectations” (Bolman and Deal, 1997). Characteristics of schools as learning organizations involve an ability to create structure, support teaching and learning, develop a positive culture and shared decision making, and respond to current concerns (Bolman and Deal, 1997; Hoy and Miskel, 2005; Sergiovanni, 1996). Looking at the research question, how factors of Arizona’s rural districts impact the implementation of models of professional development required by No Child Left Behind, it can be seen that external pressures and aspects of the environment may affect the implementation of high-quality professional development practices. Schools, by their very nature have a variety of stakeholders, all
of whom have expectations that pressure the school to perform. On the human level, schools must answer to administration, staff, students, parents and the community. Each group sees the school as fulfilling a different role, and each in its own way pressures the school (Oliva and Pawlas, 1999; Sergiovanni, 1996; Snowden and Gorton, 2002).

Politically, rural schools are under the same pressure as urban schools to institute requirements of NCLB (2001) and are held accountable to do so. However, as Williams (2003) noted, rural schools often do not have the capacity to comply. “The problems of inadequate funding and teacher quality are more pronounced in poor rural communities” (p. 8).

Finally, the physical environment places serious pressure on the ability to comply with the implementation of the concept of professional development required by NCLB. Isolation, long distances, and small staff size create a challenging environment that impacts rural schools and the implementation of policy (Jimerson, 2004; Jimerson, 2005; Reeves, 2003).

Equity Theories

Many rural schools have large populations of students living in poverty, and many rural areas have large populations of minority students. Mathis (2003) stated, “Holding political majorities in only five states, rural constituents receive little statehouse attention regarding educational financial or adequacy issues” (p. 2). Hence, implementing the concept of professional development required by NCLB (2001) implies that equity theories, also known as interest-group theories, must be part of the implementation process. A short summary of equity issues stated that “The objectives of basic schooling
should be the same for the whole school population” (Adler, 2001, p. 20). The major objective of NCLB is to reach every student, regardless of the student’s personal circumstances. “The Act seeks, in its own language, ‘to ensure that all children have a fair, equal, and significant opportunity to obtain a high quality education’ ” (First, 2003, p. 2).

It is well documented that rural districts lack funding. Two separate concepts cause this shortage in resources: (1) State funds are allocated by number of students attending and (2) Local communities have a small tax base (GAO, 2004). The lack of funding places constraints on implementation of new policies and procedures. “Without existence of . . . resources, the opportunity costs of enacting new policies becomes a major constraint on the policymakers’ options” (McDonnell and Elmore, 1991, p. 177). Hence, implementation of the models of professional development required by NCLB (2001) may not reach teachers in rural areas. Consequently, as suggested by First (2003) students with serious educational needs may not benefit from this policy. “The very children who may benefit most from this goal are the children who are still likely to be overlooked, to be ‘left behind’ ” (First, 2003, p. 2).

Institutional Theory

NCLB (2001) and the subsequent federal interventions into education are a prime example of one concept of institutional theory. “Institutional theory emphasizes that organization are open systems which are strongly influenced by their environments….Organizations within the same institutional environments tend to become homogenized” (Hoy and Miskel, 2005, pp. 256-257). The federal government has used
NCLB to define what schools should be, and this has both a positive and a negative impact. Positively, “ESEA, and now NCLB, were designed to address the needs of poor students, students from isolated, rural areas, and children from special groups such as Alaskan Natives and American Indian groups” (Cooper et al., 2004, p. 299). Negatively, schools are now subject to state and federal sanctions which will force schools to strive for conformity (NCLB, 2001).

In terms of this research project, it can be inferred that several factors of rural Arizona districts may inhibit the implementation of the concept of professional development required by NCLB (2001). Hence, these institutions may wish to comply, but they lack capacity to do so. Consequently, the implementation of the policy will be affected by the environment into which it falls. “A different institutional structure [will] produce different policy outcomes”. (Cooper et al., 2004, p. 32). As stated earlier, districts with few staff members, lack of resources, and isolated schools will have difficulty implementing all requirements of NCLB, including high-quality professional development.
CHAPTER 3

METHODOLOGY

Introduction

This policy impact study concentrated on the experiences of rural districts in the state of Arizona regarding their efforts to comply with implementation of the concept of professional development required by NCLB. Sections of this chapter include the research design, population of interest, a description of instruments and procedures, an overview of data analysis, limitations of the study, and a summary of methodology.

Research Design

This policy impact study used qualitative methods to explore the dependent variable, how do factors of Arizona’s rural districts impact the implementation of models of professional development required by NCLB. The value of quantitative research to this study is to gather data to determine the specific factors (Fraenkel and Wallen, 2003) that might impact the ability of Pre-kindergarten through Grade 12 (PK-12) rural districts to implement the models of professional development required by NCLB. Districts included in this study were drawn from the population of Arizona’s PK-12 districts classified as rural by the United States Census Bureau (USCB) Common Core of Data (CCD), based on the 2000 census. Districts chosen for the study ranged in size from an enrollment of 150 students to almost 1,000 students. Ethnic composition was taken into consideration, as well as state performance labels. A more detailed explanation of the sample studied appears below. The final sample was studied through qualitative methods to answer the research question.
The qualitative methods used in this policy impact study looked more closely at the policy at the microlevel (Heck, 2004). Merriam (1998) stated that qualitative research “is an umbrella concept covering several forms of inquiry that help us understand and explain the meaning of social phenomena with as little disruption of the natural setting as possible” (p. 5). The goal of qualitative research is an in-depth understanding of the concern being studied, and the primary purpose is to make sense of the patterns that arise from the operation of life interactions (Berg, 2004). The data gathered in this policy impact study provided a more complete understanding of the current state of implementation of professional development practices in Arizona’s rural districts.

Because the question of interest looked at the results of policy implementation, it appeared logical to ascertain, “If the [policies set forth by NCLB] are doing what they are intended to do, if there are side effects, favorable or otherwise, and if there are blocks to implementation” (First, In Press). This question was particularly appropriate, because, as noted in Chapter 2, categorical grants provided inducement to implement the mandates of NCLB (2001). Mc Donnell (2005) noted that inadequate capacity at the local level has blocked Title I from its first inception. “Inducement and mandate strategies assume that policy targets such as principals and teachers have the capacity to act consistently with a policy’s goals” (p. 21). Information gathered in this policy impact study focused on local capacity. Knowledge gained will be useful in future policy implementation processes, as well as provide opportunities for further research. For example, a future study might
explore ways to overcome obstacles of implementation, such as lack of capacity. Further, this policy impact study supported and supplemented earlier literature.

The form of qualitative methods applied throughout this policy impact study was patterned after case study methodology. The information for this study was gathered and evaluated through methodology that Berg (2004) called an intrinsic case study method, in which the intention of the researcher is to “better understand intrinsic aspects of the particular [case of interest]” (p. 256). This method was chosen due to its flexibility and the fact that “Case studies … promote examination of the process by which an intervention or policy action has been implemented” (Majchrzak, 1984, p. 63). They may also be applied to individuals or groups and utilize a variety of data-gathering methods (Berg, 2004; Hagan, 2002; Yin, 1994). Hence, the case study method was applicable to collecting data to determine if the concept of professional development required by NCLB (2001) was reaching teachers in Arizona’s rural districts. Using the case method provided a comprehensive description of current practices in Arizona’s rural PK-12 districts by supplying details of circumstances, participation, and future goals.

Participants

Participating districts in this study were drawn from the population of PK-12 school districts in Arizona that qualified for funds under the Small, Rural School Achievement Program (SRSA), and had been assigned a locale identification code of 7, and were not served by a metropolitan area of more than 2,500 people as determined by NCES (2005b).
To qualify for these federal monies:

- Average Daily Attendance (ADA) at all of the schools served by the Local Educational Agency (LEA) is fewer than 600; or each county in which a school served by the LEA is located has a total population density of fewer than 10 persons per square mile; and

- All of the schools served by the LEA are designated with a school locale code of 7 or 8 by the Department's National Center for Education Statistics; or the Secretary has determined, based on a demonstration by the LEA and concurrence of the State Education Agency (SEA) that the LEA is located in an area defined as rural by a governmental agency of the State (p. 3).

A purposive sample of five districts was chosen for this study from the population of PK-12 districts in Arizona designated as rural in the Common Core of Data (CCD, NCES, 2005a). An effort was made to choose districts that exhibited commonalities yet provided diverse environments. Districts were chosen with the following criteria in mind:

- Districts should be drawn from a variety of Arizona counties within a four-hour drive of the researcher’s base.

- Districts should range in size of an enrollment of more than 100 students but less than 1,000 students.

- Districts shall represent diverse ethnic groupings.

- Districts should display various percentages of free and reduced lunch statistics.
The final selection, gleaned from a field of eight possible districts, was chosen because of practical considerations, such as accessibility and time pressures.

**Demographics**

Demographics of the final sample are displayed in Table 3 and Table 4. The tables are followed by short narrative background information of each district. The final sample represented districts from four Arizona counties and a range of student enrollment from 150-960, with three districts falling about mid-range. In three of the districts, the ethnic majority was Hispanic, in one district the ethnic majority was Caucasian, and in the final district the ethnic majority was Native American.

<table>
<thead>
<tr>
<th>Table 3</th>
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<tbody>
<tr>
<td><strong>Comparison and Contrast of District Factors: Demographics</strong></td>
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<table>
<thead>
<tr>
<th>Factor</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Number of Schools</td>
<td>2</td>
</tr>
<tr>
<td>District Enrollment (To the nearest 10)</td>
<td>150</td>
</tr>
<tr>
<td>Population of Teachers</td>
<td>11</td>
</tr>
<tr>
<td>Percentage of Enrollment by Subgroup</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>68</td>
</tr>
<tr>
<td>Caucasian</td>
<td>28</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
</tr>
<tr>
<td>Percentage of Free and Reduced Lunch</td>
<td>--</td>
</tr>
</tbody>
</table>

*(NCES-CCD, 2005; Public School Review, 2006; ADE, 2006)*

Note: a – indicates that data are unavailable.
### Table 4

**Comparison and Contrast of District Factors - Performance Labels**

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<thead>
<tr>
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<th>2001-2002</th>
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<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>Elementary</td>
<td>Intermediate</td>
<td>Middle</td>
</tr>
<tr>
<td>District A</td>
<td>Small School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District B</td>
<td>Under Performing</td>
<td>Performing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District C</td>
<td>Performing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District D</td>
<td>Maintaining</td>
<td>Under Performing</td>
<td>Improving</td>
<td>Under Performing</td>
</tr>
<tr>
<td>District E</td>
<td>Performing</td>
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<tr>
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<td>Primary</td>
<td>Elementary</td>
<td>Intermediate</td>
<td>Middle</td>
</tr>
<tr>
<td>District A</td>
<td></td>
<td>Under Performing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District B</td>
<td>Failing</td>
<td>Performing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District C</td>
<td>Performing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District D</td>
<td>Under Performing</td>
<td>Performing</td>
<td>Performing</td>
<td>Performing</td>
</tr>
<tr>
<td>District E</td>
<td>Performing</td>
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<table>
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<td>Elementary</td>
<td>Intermediate</td>
<td>Middle</td>
</tr>
<tr>
<td>District A</td>
<td></td>
<td>Small School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District B</td>
<td>Performing</td>
<td>Performing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District C</td>
<td>Highly Performing</td>
<td>Performing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District D</td>
<td>Performing</td>
<td></td>
<td>Performing</td>
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<tr>
<td>District E</td>
<td>Performing</td>
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</table>

(NCES-CCD, 2005; Public School Review, 2006; ADE, 2006)

Free and reduced lunch statistics, which act as one measure of community affluence, ranged in this study from 19% of the district population to 92% of the district population. Community affluence was verified by a comparison of median household incomes of the communities included in the study to the median household income of Arizona and the United States as a whole. The median household income in the state of
Arizona was $58,206. The median household income of the United States (adjusted for inflation) was $65,093 (United States Census Bureau, 2006). Only one community in this study had a median income comparable to the median household income in Arizona. Two of the communities in this study had a median household income of less than $25,000 (USCB, 2006).

For reporting purposes in this study, districts were divided into four size categories: (1) fewer than 250 district enrollment, (2) 251-500 district enrollment (3) 501-750, district enrollment, and (4) 751-950+ district enrollment. No district in this study had an enrollment exceeding 965 students.

*Narratives of Districts*

*District A.* District A was by far the smallest district in the study. The town’s population was approximately 700, two-thirds of whom were Hispanic (USCB, 2000). Inhabitants had few economic opportunities, and the 2000 census reported a median income of $18,960. Sources of income included the Post Office, school district, local vineyards, and pecan and almond orchards. This resulted in a serious lack of middle class as the population consisted of owners and laborers with nothing in between.

The impression gained from a drive through town was that most houses were in need of major repair. There were a few higher priced homes, which could be assumed to belong to the owners of the orchards who provided the only real source of income in the town. The only other substantial building in the town was the school, which had classrooms for PK-12. The building was old, but serviceable and in good repair. Next year it will become the oldest continuously occupied school in the state.
The superintendent/principal/athletic director was a brusque, but caring person, who had elected to return as superintendent of this district for the second time. His love for the community and his students was apparent, but so was his frustration. In general he felt the State had forgotten about the rural schools, except as political footballs, and in fact he stated, “I am convinced the state would like to see the rural schools close down and go away.” He was also proud of some of the things his school had accomplished. As an example, he mentioned the 70-80% graduation rate of students who had gone “out into the world” and been successful. However, he said, “The opposite side is that they don’t come back because there is nothing to draw [or support] them.” He was proud of the fact that two of his teachers had long time experience at all levels of education, and held doctoral degrees, but was frustrated by the fact that he had to send both of them letters to inform them that they were not considered highly-qualified under NCLB (2001). He was also proud that a few of his teachers had been with the district for more than 20 years, but the rest had a three-year average. Teachers leave for a variety of reasons—some because of low pay, some because spouses could not find jobs in the area, some because they wanted their own children to grow up in larger school districts, and some because of isolation. The district had visits and support from a state “solutions team” and had raised its rating from underperforming to performing.

District B. The town in which District B was located was originally established as a mining town. The area was also excellent for farming, which had continued to be a source of economic support. However, the consolidation of farms caused a decrease of employment.
The downsizing of the original mine undermined the economy of this area which had a population of about 800 people, but even so, it was a bit more prosperous than District A, with a median income for the year 2000 of $27,000 (USCB, 2000). The predominate ethnicity of the district was Caucasian. Although the median household wage was significantly less than the state average, there were signs of a stable (but not growing) economy. Restaurants, stores, and small shops existed throughout the town. Most homes appeared to be in good repair, although there were also blighted and rundown areas. It appeared there was a slightly higher tax base than in District A.

The spokesperson for this district served as principal for the intermediate school, but spoke as a representative for the district. He wanted what was best for his community because he was born and raised in the area and he was the last of his family to remain. He said, “I remain because I love living here.” He recently underwent surgery and blamed some of his health problems on the stress of his job. The normal stress of a multi-responsibility position had been compounded by the fact that the primary school received a failing grade, and hence the district had been under the guidance of a “solutions team.” Overall, even though there were two separate teams in the past years, it had been a positive experience. A mentor principal and a full-time mentor teacher serviced the district. This superintendent was also frustrated because he believed his school was unfairly labeled. When the benchmarks were set, the fifth grade class had no members who were classified as special education students. Class members were hardworking and more gifted than average. Hence, the benchmark that was set with this fifth grade class was very high. When the following class, which had several special
education students and students of average level skills, was tested, the benchmark was
not met and the school received a failing label. This superintendent, like the
superintendent in District A, felt the state did not care about rural schools and was more
likely to give a rural district a failing label because there were no political repercussions.
He was frustrated by the demands of running a rural school. A continuing concern was
finding highly qualified teachers; average turnover rate of the staff was 80% per year.
The district did its best to provide money and opportunities for professional development,
but teachers did not stay beyond the first few years. The district spokesperson cited the
major reason for attritions is, “higher salary—at 30 years [experience] teachers are
making about $35,000. Some feel the need to increase their salary before retirement, and
this area is pretty isolated.”

District C. District C was also a mining town, but in this town the mine was still
in operation and provided a solid employment base for the 1,900 residents, about two-
thirds of whom were Hispanic. The 2000 median household income was $46,010
(USCB, 2000). Consequently, the median income in the area was much higher than other
districts in the study. As compared to Districts A and E, it was more than twice as high.
According to the superintendent, many of the people working at the mine were
professionals, such as geologists, and this contributed not only to a higher level of
income, but also to a culture in which excellence was expected in the schools.

This community was extremely isolated, tucked away amid the mountains. The
roads into and out of town were well cared for but windy and desolate. Of all the
communities in the study, this was by far the most prosperous as well as the largest. The
school district attendance was almost twice that of District B and about 8 times that of District A. Consequently, there were 60+ teachers, and teachers were more likely to stay in this district even though it was isolated, because daily living was more convenient. In this district, the superintendent had only one job and led the district toward excellence.

A professional development program that used the teachers as trainers and leaders had been in effect since before NCLB (2001). Each year the plan was adjusted and expanded to meet the needs and desires of the teachers. When NCLB was passed this district formed a committee to guide and monitor the implementation of the NCLB requirements and the district schools had always been labeled as Performing or better by ADE.

Employing highly qualified teachers had been cyclical, more difficult in some years than others. This district had amenities other rural districts did not, and also there was more funding for better salaries. The superintendent reported that in general the district was able to meet both needs and wants.

*District D.* Two small communities in Arizona’s central mountains comprised this district. The first community had 440 inhabitants; the second had 900, as reported by the 2000 census (USCB, 2000). Residents of one community, three-fourths of whom were Caucasian, were involved in forestry, agriculture, and mining, and both communities had a median household income of $25,000 suggesting an area of poverty, although, as in other areas of mining operations, there are pockets of affluence. The ethnicity of the population in the other community was predominately Hispanic. Neither
community was growing and both communities had been losing residents for the last few years (City Data, 2006).

The area in which the campus of District D was located appeared to be the “calendar picture” American small town, with neat streets and tidy yards. The schools were gathered together at one attractive campus near the edge of town, sporting surprising facilities such as a free-standing auditorium. The interiors of the schools were modern, providing an inviting atmosphere for learning that included a comfortable commons. The attention to detail in school facilities suggested communities that value education. This was supported by the fact that the schools had not only been labeled Performing Plus by the State of Arizona, but were recently recognized as an “outperforming” school by a private agency.

The superintendent had been in the district since 2000 and brought with him an attitude that professional development was important for student achievement. He and members of a district team completed two years of the Professional Development Leadership Academy (PDLA) sponsored by ADE. In past years, professional development had been focused on the core subjects of reading and math. In this district, the best model of professional development was to provide facilitators to work within the school day, observing lessons and providing feedback to the teachers.

The superintendent of District D felt the state had been very supportive during the implementation period of NCLB, from help in understanding the requirements of the law to “hands-on” cooperation with the district’s site council. All in all, District D
seemed to be well on the way to implementing models of professional development required by NCLB (2001).

*District E.* District E, with a population of 370 (USCB, 2000) was located in an area that originally established as one of the many forts built to protect settlers in the late 19th and early 20th centuries. Since the closing of the fort, the town had not grown despite the fact that it was located on a major Arizona highway. The school district was the largest employer in this town. A small grouping of commercial buildings next to the high school provided the only other opportunity for employment. Most people living in the area were farmers in the past; those who remain were either people who “like to live in the country” or subsistence farmers, according to the district representative. Other opportunities for employment were available in the neighboring town; however, these only included a clinic, a sanitation company, the post office, and a new supermarket. Despite the limited employment opportunities, this town had a median income of $28,750 as reported by the 2000 census. However, due to the fact that the district served a second community, overall the district was almost as disadvantaged as District A.

Originally, the school served its own attendance area, and the district spokesperson, said, “No one remembers when it became a district serving two distinct communities.” The home community was not a reservation area, but the second community served by the district was on a reservation, that had a population of 1,850, almost nine times the population of the original district. The addition of this community resulted in the school population being 96-97% Native American. The district served about 92% free and reduced lunch, indicating that the second community was extremely
disadvantaged. This was supported by the fact that the USCB listed the 2000 median income was $17,700.

Some of the academic problems of the district stemmed from the fact that most of the students attending the district schools are from an area of poverty, and also because of culture. The students were from homes where there was little literary tradition. While the native culture is verbal in many ways, “They are not a verbal people about ideas,” according to the district representative.

Because of the geographical separation of the school and the reservation, there was little parent involvement. Sports events helped to hold the community together, and when the district administrators wished to have parents come to school, they found it advantageous to bus the parents as well as the students.

Professional development was a wide open field in this district. The district representative and other members of the district took part in the PDLA team sponsored by ADE. This district was the only district in the study to employ a full time person to improve professional development programs within the district.

In summary, qualitative research methods were used in this research design. A purposive sample of five districts was chosen for in-depth study using case study methods of document analysis, site visits, and semi-structured interviews to discover patterns of implementation of the concept of professional development required by NCLB (2001) in Arizona’s PK-12 rural districts. A sample of the interview can be found in Appendix B.
Instruments and Procedures Used in Data Collection

The primary instruments used to collect data in this policy impact study were site visits, semi-structured interviews with district personnel, and document analysis (Merriam, 1998). A sample of the semi-structured interview can be found in Appendix B. In all cases in this study, interviews were conducted with the person in the rural district most responsible for implementation of professional development within the district. In some cases, this person was the superintendent. In other cases, this person was a principal who agreed to oversee professional development within the district. Document analysis included Arizona Report Cards, district newsletters, professional development flyers, and district reports developed by ADE and NCES. Field notes were transcribed in a timely manner, an important aspect of data collection according to Fraenkel and Wallen (2003) and Miles and Huberman (1994). Notes included thoughts and observations appropriate for the local situation and background information provided by participants.

Validity

As noted above, this study used multiple sources of data collection. This “use of multiple lines of sight is frequently called triangulation” (Berg, 2004, p. 5). The purpose of using multiple sources for this impact study was two-fold: (1) it increased the knowledge base upon which conclusions and recommendations were based and (2) it enhanced the validity, the appropriateness, significance, and usefulness of the study, as noted by Fraenkel and Wallen, (2003); “When a conclusion is supported by data collected from a number of different instruments, its validity is thereby enhanced”
(p.463). Also, to assure validity, the semi-structured interviews with district personnel were well notated and followed by timely transcription.

To draw meaning from the data gathered through qualitative methods during this study, a variety of techniques were employed. First, field notes from the site visit to each of the five districts were transcribed and compared to identify themes or patterns. Then, two comparison and contrast tables were used to visually portray similarities and differences to clearly establish characteristics of each district, as shown in Table 5 and Table 6. Footnotes included in Table 5 provide personal comments of respondents and give a broader picture of attitudes and activities within the rural districts studied. From these tables and a literature search, a tentative list of themes and patterns evolved. Interview notes were then transcribed into a composite interview report to make comparisons of information more readily apparent. A summary table of themes and patterns was then constructed. Themes and patterns were assigned a coding number to better locate and organize related information from field notes, interviews, and demographic reports.

A rating scale based on the integers of 1, 2, 3, 4 was applied to responses obtained from the Likert scales to create ordinal, or rank, variables (Fraenkel & Wallen, 2003) for comparison of characteristics of individual districts as shown in Table 6. Field notes, demographic documents, interviews, and relevant literature were then coded by color and number for analysis and support. Finally, to simplify comparisons of themes and patterns affecting the implementation of professional development in rural schools with the self-reported implementation level of this goal, the researcher constructed tables for analysis
purposes that are displayed and examined in the following section. Other tables that appear in Chapter 5 display the self-reported implementation level of professional development programs as required by NCLB (2001) were used as the desired outcome and substituted for the dependent variable in quantitative research. The themes and patterns that affected the implementation replaced the independent variables in quantitative research.

Generalization

Approaching this policy impact study by using case study methods provided an in-depth picture of how the factors of Arizona’s rural districts impacted the implementation of professional development models required by NCLB (2001). The study focused on a small target population. Therefore, the generalization of the study may prove to be suspect. Yet Berg (2004) attested that “When case studies are properly undertaken, they should not only fit the specific individual, group, or event studied, but also generally provide understanding about similar individuals, groups, and events” (p. 259). These methods were not intended to show causality (, Heck, 2004; Marjchrzak, 1984; Merriam, 1998) but were intended to provide a snapshot of the current state of implementation of the models of professional development required by NCLB in Arizona’s PK-12 rural districts. Heck explained the generalization of such studies in the following way:

The aim is to produce results that provide a diverse audience with an increased understanding of policy problems; context and issues, processes, intervention strategies, and their demonstrated effects. This information can be used to
generate implication, and recommendations that can ultimately lead to future policy actions that reduce or alleviate the problem . . . The results of studies, therefore, help contribute to a knowledge base on how particular approaches work (or don’t work) in alleviating a problem (p. 188-187).

The information from this policy impact study can be generalized to like situations with regard to the impact of policy implementation in rural schools within Arizona, as well as schools with similar demographics in other locations.

Procedures for Data Collection

The steps in the process of this policy impact study were as follows:

1. Addresses of PK-12 rural districts in Arizona were obtained from the NCES (2005a). A purposive sample of five districts that met the following criteria was chosen.

   - Districts should be drawn from a variety of Arizona counties within a four-hour drive of the researcher’s base,
   - Districts should range in size from an enrollment of less than 200 students to no more than 1,000 students,
   - Districts shall represent diverse ethnic groupings, and
   - Districts should display various percentages of free and reduced lunch statistics.
   - The final selection, gleaned from a field of eight possible districts, was based on practical considerations, such as accessibility and time pressures.
2. An interview format was developed patterned after the *Introduction to the NCLB Survey* from the NSDC (Mizell, 2005). Permission was obtained to adapt Mizell’s work. A copy of the interview can be found in Appendix B.

3. District personnel familiar with district professional development practices were contacted by a combination of electronic and telephone communication to establish appointments for face-to-face interviews. Permission to conduct research within the selected districts was obtained. Respondents were sent a copy of the interview questions in advance.

4. Face-to-face interviews were conducted on site with district representatives. Interviews varied in length from one hour to two and one-half hours. Three of the district respondents were district superintendents, and two of the respondents were principals of district schools acting on behalf of the superintendent’s office. Documents concerning implementation of the concept of professional development required by NCLB (2001), such as school board minutes, memos to staff, and district newsletters, were requested. Only three of the districts provided the requested documents.

5. A visual tour of the community surrounding the individual districts studied was undertaken to gain a feel for the environment in which the district existed. Travel to the districts and tours of the communities provided an important sense of the isolation and capacity of individual districts.

6. Finally, field notes and interviews were transcribed in a timely matter and submitted to analysis procedures as described in Chapter 4.
Procedures for Data Handling

In this policy impact study, site visits, document analysis, and semi-structured interviews were used to determine the factors of rural districts that impacted implementation of models of professional development required by NCLB (2001). Additional information obtained included respondents' experience regarding obstacles and successes in the implementation process. The site visits and semi-structured interviews revealed reactions, feelings, and expectations about the implementation process. Problems, praises, and recommendations for better implementation were also obtained through the visits and interviewing processes. The on-site visits and interviews were reviewed qualitatively to determine themes and patterns, especially as responses related to reactions, feelings, and expectations about the implementation process. These methods also identified areas that respondents saw as obstacles to implementation of the models of professional development as required by NCLB. In this policy impact study, information was not used to determine causality (Cooper et al., 2004) but rather to examine the impact of district factors on the implementation of professional development polices outlined in NCLB in order to better understand the processes that affected implementation.

Data Analysis

Guidelines for thoughtful and careful management and analysis of data were well defined by Miles and Huberman (1994) and were adapted for this policy impact study. To present clear and precise data, data were handled in a timely manner. Analysis was begun during collection as “simultaneous data collection and analysis occurs both in and
out of the field. That is, you can be doing some rudimentary analysis while you are in the process of collecting data, as well as between data collection activities” (Merriam, 1998, p.162). Like Merriam, Miles and Huberman believed that analysis and collection of data were on-going and expressed three concurrent activities of qualitative analysis, data reduction, data display and conclusion drawing and verification, as seen in visual form in Table 5.

Data Reduction, which is the process of selecting, focusing, and simplifying data. It begins with the conception of the study and carries through collection, conclusion, and verification. Data reduction took place throughout this study. Data reduction was inherent in choice of the question of interest, the sites chosen for study, and the design of the semi-structured interview. Further, methods of coding and development of themes and patterns also comprised data reduction.

Data Displays were used to organize data to permit conclusion drawing and analysis. In this study, several data displays that included summary tables, comparison and contrast charts, ordinal placement charts, and graphic organizers supplied and organized ways to assemble and view information for analysis.

Conclusion drawing/verification was an analysis activity that began at the start of the study as the researcher noted patterns, explanations, and possible categories.

Verification required constant checking, coding, and testing for plausibility. Conclusions were also verified for consistency through cross-checking of earlier studies, literature review, and peer review. As can be seen from this model, data
analysis was a “continuous, iterative, enterprise” (Miles & Huberman, 1994, p. 12). This model was followed throughout this policy impact study. As categories, themes, and patterns were generalized (Merriam, 1998), it was possible to note reoccurring factors that provided information to support conclusions and recommendations.

To further test the quality of this policy impact study, criteria outlined by Lincoln and Guba (1985) and Guba and Lincoln (1989) were used to determine the trustworthiness of the study, as described by First (1996). These criteria were credibility, transferability, dependability, and confirmability.

Table 5
Components of Data Analysis: Flow Model

| Data collection period |

DATA REDUCTION

| Anticipation | During | Post |

DATA DISPLAYS

| During | Post |

CONCLUSION DRAWING/VERIFICATION

| During | Post |

(Miles & Hubermann, 1994, p. 10)
Credibility is concerned with the truth of the findings for particular subjects in a particular context and would replace the concern with internal validity found in traditional research methods. Corroboration of credibility was obtained through cross-checking and triangulation. Interviews, document searches, and site visits provided the triangulation during this study. Also, cross-checking themes and patterns with earlier studies and literature research (D’Amico, 1995; Jimerson, 2004; NEA, 2005; Reeves, 2003; Rural School and Community Trust, 2000; Youngs & King, 2002) supported findings in this study.

In determining transferability or applicability of a policy study to a different context, researchers must assess the fit of the findings to the new context or setting. The more complete the original work, the more likely the fit to a new context can be assessed. Concern for applicability replaces external validity in experimental research. In this study, the transferability was supported by earlier studies (Yaunches, 2004; Jimerson, 2004; Reeves, 2003; Youngs and King, 2002).

Dependability or consistency relates to the concern for reliability in traditional studies. An audit trail is used to determine dependability. This means that if a second policy researcher or team reviewed the information and reasoning, they would reach the same findings. In this policy impact study field notes, interview notes, comparison and contrast tables, figures, and tables provided information for future research. The data in this study were consistent with earlier theories and literature related to both professional development (Early and Bubb, 2004; Loucks-Horsley, Harding, Arbuckle, Murray, Dubea, and Williams, 1987; Loucks-Horsley, Love, Stiles, Mundry, and Hewson, 2003;
and leadership (Fullan, 2001; Fullan, 2004; Gutskey, 2000; Lambert, 2003). The consistency seen in data from this investigation and earlier studies increased the dependability of data and conclusions of this policy impact study.

Lastly, confirmability applies to the neutrality and objectivity of the policy impact study. Data must be factual and confirmable throughout each step of the research process, and confirmability is a basic necessity (First, 1996). To produce confirmability in this study, field notes, interview notes, and data analysis were carefully documented.

By adhering to these criteria—credibility, transferability, dependability, and confirmability—this policy impact study provided information effectively collected, organized, and analyzed to provide a sound basis for conclusions and recommendations.

Limitations of the Study

One of the limitations of this study was that it was a snapshot of the implementation of the models of professional development described in NCLB (2001) rather than a longitudinal study. As a snapshot of implementation five years after the passage of the law, it only dealt with current realities. It did not indicate districts would continue on the same path, positive or negative, in the future. Findings of this study can, however, tell us if NCLB “is doing what it is intended to do, if there are side effects, favorable or otherwise, and if there are blocks to implementation” (First, 1996, p. 95).

The sampling in this study was purposive and not random. Also, the sample included a narrow section of rural schools. There were many rural districts in Arizona with only one school and enrollments of fewer than 100 children. The experiences of
implementing professional development practices consistent with NCLB (2001) requirements may be very different in these situations.

The sample was small, and therefore findings may not generalize to all other situations. As noted by Levin (2004), “Social science knowledge tends to be tentative and contextual, whereas users want certainty . . . its impact is always mediated by larger social and political process” (pp. 2, 3). It may be noted that despite the small sample size, findings compared with previous investigations on like samples.

This study was limited to evaluation of professional development implementation within any given district by a leader within the district. A more in-depth picture could be portrayed by including attitudes and opinions of other stakeholders. Data may include prejudicial factors, because the data gathered in this study were self-reported. To mitigate prejudicial factors, the researcher kept careful field notes in the effort to achieve an unbiased description of each district and respondent. As noted above, all steps were taken to ensure the limitations did not affect the generalization of this policy impact study.

Summary of Methodology

In summary, this was a policy impact study using qualitative data collection methods. The study was based on a purposive sample chosen from the population of Arizona’s PK-12 districts labeled as rural by the NCES Common Core of Data (2005a). Sources of information for the targeted districts were site visits, semi-structured interviews, and document analysis. Data were analyzed using the Flow Model devised by Miles and Huberman (1994) to build patterns and explanations to answer the question
of this policy impact study: How factors of Arizona’s rural districts impact the implementation of models of professional development required by NCLB?
CHAPTER 4

FINDINGS

Introduction

Analysis of the information gained through observation, interviews, and demographic information from this policy impact study revealed familiar factors previously noted in literature related to rural schools that hindered the implementation of programs; district size, isolation, and lack of funds (Jimmerson, 2004, 2005; Johnson & Strange, 2005; Reeves, 2003). Another factor, leadership knowledge as it relates to implementation of programs, was noted and was supported in leadership and change literature (Bolman and Deal, 1997; Fullan, 2004; Sergiovanni, 1996). Several of the factors affecting districts included in this policy impact study are displayed in Tables 6, and obstacles to implementation and success the districts have experienced appear in Table 7.

In this policy impact study, the leadership factor appeared to have the overriding influence impacting the degree of implementation of models of professional development required by NCLB (2001) in the five rural Arizona districts considered. The fact that leadership was important was not a surprise if it is remembered that, “Skill building and professional growth are, in fact, change” (Southwest Educational Development Laboratory [SEDL], 1993 p. XX). A 2002 study by Youngs and King revealed that “One prominent way in which [leaders] shape school conditions and teaching practices is through their beliefs and actions regarding teacher professional development” (p. 643).
Table 6

Comparison of Factors Affecting Implementation of Professional Development in Arizona’s Rural Schools

<table>
<thead>
<tr>
<th>Factors</th>
<th>Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A B C D E</td>
</tr>
<tr>
<td>Will the district be in compliance with professional development models required by NCLB by 2007?</td>
<td>No No Yes No Yes</td>
</tr>
<tr>
<td>Funding Issues: Your district has adequate funding for professional development activities.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>X</td>
</tr>
<tr>
<td>Disagree</td>
<td>X</td>
</tr>
<tr>
<td>Agree</td>
<td>X</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>X</td>
</tr>
<tr>
<td>Stakeholder knowledge: Teachers understand the difference between models of PD required by NCLB and one-day workshops or conferences.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>X</td>
</tr>
<tr>
<td>Disagree</td>
<td>X</td>
</tr>
<tr>
<td>Agree</td>
<td>X</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>X</td>
</tr>
<tr>
<td>Changes: Because of the pressures resulting from NCLB your teachers have:</td>
<td>A B C D E</td>
</tr>
<tr>
<td>Less PD than last year</td>
<td></td>
</tr>
<tr>
<td>About the same as last year</td>
<td></td>
</tr>
<tr>
<td>Somewhat more than last year</td>
<td>X</td>
</tr>
<tr>
<td>Significantly more than last year</td>
<td>X (^4)</td>
</tr>
</tbody>
</table>

1 If this question is focused on NCLB, I disagree. Funding for PD is on our own.
2 If I had more money, I’d have more people [trainers] come in. The more people who can come in, the stronger my curriculum instruction.
3 The NCLB implementation committee does, and a few others, but no, not all, and not the community.
4 Somewhat more than last year. However, this has nothing to do with NCLB, we are doing this for ourselves.
5 This was started before NCLB.
Table 6 (continued)

<table>
<thead>
<tr>
<th>Compliance: Professional development programs in your district are based on NCLB models.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implementation: How close is your district to establishing models of professional development outlined in NCLB?</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>We do not have the capacity to work on this goal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We are beginning to work on this goal</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have made good progress towards this goal</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have all ready reached this goal</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leadership: As a district leader, your knowledge of high quality professional development practices is:</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited – What others tell you</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average – Based on some reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above average – Knowledgeable about some provisions</td>
<td></td>
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<tr>
<td>Exceptional – Comprehensive knowledge of the law</td>
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</tbody>
</table>

1 Not due to NCLB, but due to superintendent’s knowledge and leadership.
1 We are trying hard to get there. We are involved in PDLA training.
1 We have been trying to implement the information we have learned at the Professional Development Leadership Academy (PDLA).

District leaders, superintendents, or others acting on behalf of the district interviewed in this study self-reported various levels of understanding of professional development. Those leaders who indicated the most knowledge and commitment also indicated higher levels of policy implementation.
### Table 7

*Obstacles and Successes Arizona’s Rural Districts Have Experienced During the Implementation of NCLB Professional Development Requirements.*

<table>
<thead>
<tr>
<th>Obstacles</th>
<th>Districts Who Have Experienced This Obstacle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Lack of funds to pay training costs</td>
<td>X</td>
</tr>
<tr>
<td>Lack of funds to pay travel costs</td>
<td>X</td>
</tr>
<tr>
<td>Lack of effective substitute teachers</td>
<td>X</td>
</tr>
<tr>
<td>Size limits grade level study</td>
<td>X</td>
</tr>
<tr>
<td>Limited funds to hire experts</td>
<td>X</td>
</tr>
<tr>
<td>When sharing among districts can not pick subject matter</td>
<td>X</td>
</tr>
<tr>
<td>Finding time</td>
<td></td>
</tr>
<tr>
<td>Not having fully outlined expectations</td>
<td></td>
</tr>
<tr>
<td>Implemented too quickly without direction and time for change</td>
<td></td>
</tr>
<tr>
<td>Lack of support for implementation of program from other stakeholders</td>
<td></td>
</tr>
<tr>
<td>General bureaucratic demands</td>
<td></td>
</tr>
<tr>
<td>Lack of government assistance</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Successes/Positive Assistance</th>
<th>Districts Who Have Experienced This Success</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Common planning time</td>
<td>X</td>
</tr>
<tr>
<td>State resources</td>
<td>X</td>
</tr>
<tr>
<td>Leadership team for NCLB implementation</td>
<td></td>
</tr>
<tr>
<td>Teacher visitation to other schools</td>
<td></td>
</tr>
<tr>
<td>Teachers as leaders for other teachers</td>
<td>X</td>
</tr>
<tr>
<td>Improved student achievement</td>
<td>X</td>
</tr>
<tr>
<td>Shared professional development resources</td>
<td>X</td>
</tr>
<tr>
<td>Curriculum mapping</td>
<td>X</td>
</tr>
<tr>
<td>Programs such as SEI, DIBELS</td>
<td></td>
</tr>
<tr>
<td>State sponsored mentor-teacher/principal/superintendent</td>
<td>X</td>
</tr>
<tr>
<td>State Solutions Team</td>
<td></td>
</tr>
<tr>
<td>On site professional development director</td>
<td></td>
</tr>
</tbody>
</table>
Analysis

Clarification of Terms

Implementation. This term was used to describe the degree to which school districts had incorporated models of professional development as defined by NCLB (2001) into the school culture. In short, this meant professional development that was ongoing, job-embedded, and long-term. NCLB encouraged districts to implement these models of professional development by 2007.

Leadership. In all cases in this study, interviews were conducted with the person in the rural district most responsible for implementation of professional development within the district. In some cases, this person was the superintendent. In other cases, this person was a principal who agreed to oversee professional development within the district.

Other stakeholders. This term referred to teachers in the district and community members, including the school board, parents, and businesses within the community.

School size. For reporting in these charts, schools were divided into four categories: 1) less than 250 district enrollment, 2) 251-500 district enrollment 3) 501-750 district enrollment, and 4) 751-950+ district enrollment. No district in this study had an enrollment exceeding 965 students.

Finances. To what extent finances were an issue in a given district was determined by the respondent for the district using a four-level Likert scale.

Community affluence. Median household incomes of the communities included in the study were compared to the median household income of Arizona and the United
States as a whole. The median household income of the State of Arizona in 2003 was $41,963. The median household income of the United States (adjusted for inflation) in 2004 was $44,684 (United States Census Bureau, 2004). Only one community in this study had a median income comparable to the median household income in Arizona. Three of the communities in this study had a median household income of less than $25,000 (USCB, 2006).

**Isolation.** For this section of the paper (Chapter 4) isolation did not simply mean “rural” as defined in Chapter 3. Rather, this term referred to the self-reported experiences and perspectives of the district respondent in reference to the distance district personnel must travel to share professional development experiences with other districts or to obtain training for their professional development. The four levels of measurement used in this study to describe isolation were: (1) 0-20 miles, (2) 20-40 miles, (3) 40-60 miles, and (4) Over 60 miles.

**State solutions team.** A.R.S. § 15-241 (P) (as amended, 2006) stated, in part, The superintendent of public instruction, based on need, shall assign a solutions team to an Underperforming School, a School Failing to Meet Academic Standards or any other school pursuant to a mutual agreement between the Department of Education and the school, comprised of master teachers, fiscal analysts and curriculum or assessment experts who are certified by the state board of education as Arizona academic standards technicians (School Effectiveness Team, 2006, p.1).
The assignment of Solutions Teams to Underperforming schools supported the Superintendent’s mission to provide high-quality service to all schools. One team leader and one or two team members, depending upon the size of the school to be visited, comprised a Solutions Team. As a Solutions Team, these individuals were official representatives of the Superintendent of Public Instruction and the Arizona Department of Education (School Effectiveness Team, 2006).

**Implementation Level**

In this study, the implementation level signified how a respondent viewed the district progress toward the goal of full implementation of job-embedded, on-going, site-based professional development required by NCLB (2001). For the purposes of this study, reaching full implementation meant one or more of the models of professional development described in Chapter 2, individually guided staff development, observation and assessment, involvement in development or an improvement process, training, inquiry or action research, study groups, and mentoring, had become part of the daily culture of the district. Figure 1 compares the implementation level of the five districts in the study. A level of one indicated a district which was just beginning on this goal; four delineated a district that had already reached this goal.

As can be seen in Figure 1, District A self-reported a lack of capacity to reach the goal of full implementation. As can be noted in Table 8, District A takes part in a wide variety of professional development opportunities. However, the superintendent felt that it could not always be as in-depth or on-going as required by NCLB (2001), because the district had only six teachers, and all of the teachers had different concerns due to
different grade level assignments. The superintendent’s view was that the federal government ‘has their requirements, and we have our needs. [Our district] has unique needs— we can’t [always] change because of their requirements.” In this district,

![Bar graph showing comparison of self-reported implementation of professional development models required by NCLB and influencing factors for districts studied.

**Figure 1.** Comparison of self-reported implementation of professional development models required by NCLB and influencing factors for districts studied: 1 = We do not have the capacity to work on this goal, 2 = We are beginning to work on this goal, 3 = We have made good progress towards this goal, and 4 = We have already reached this goal.

professional development was based on teacher desire. However, Table 8 indicated this district had been involved in a development process—the development of a Structured English Language curriculum. Involvement in such a process falls within the guidelines of professional development as required by NCLB, as noted in Chapter 2 of this study. Districts B, C, and D stated they were making good progress toward the goal. This was confirmed in that District B had been part of an on-going improvement process through...
interventions of a State Solutions Team. These interventions included professional
development activities consistent with those required by NCLB (ADE, 2006). Documents

<table>
<thead>
<tr>
<th>Type of Professional Development</th>
<th>Participation District A</th>
<th>Pre NCLB</th>
<th>Post NCLB</th>
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</thead>
<tbody>
<tr>
<td>University Courses</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Internet Courses</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Community College Courses</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Conventions</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Workshops</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Involvement In A Development Improvement Process</td>
<td>X – limited</td>
<td>X – limited</td>
<td>X – limited</td>
</tr>
<tr>
<td>Individually Guided Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Book Studies</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Observation/Assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study Groups</td>
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<td></td>
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</tr>
<tr>
<td>Inquiry/Action Research</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentoring</td>
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<td>X</td>
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<table>
<thead>
<tr>
<th>Type of Professional Development</th>
<th>Participation District B</th>
<th>Pre NCLB</th>
<th>Post NCLB</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Courses</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Internet Courses</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Community College Courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshops</td>
<td>X – limited</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>X – limited</td>
<td>X</td>
<td></td>
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<tr>
<td>Involvement In A Development Improvement Process</td>
<td>X – limited</td>
<td>X – limited</td>
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Table 8 (continued)

*Participation in Professional Development Model Pre and Post NCLB -*

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<tr>
<th>Type of Professional Development Participation District B (continued)</th>
<th>Pre NCLB</th>
<th>Post NCLB</th>
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<tr>
<td>Individually Guided Activities</td>
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<tr>
<td>Observation/Assessment</td>
<td>X</td>
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<tr>
<td>Study Groups</td>
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<tr>
<td>Inquiry/Action Research</td>
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<tr>
<td>Mentoring</td>
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</table>

*Participation in Professional Development Model Pre and Post NCLB*

<table>
<thead>
<tr>
<th>Type of Professional Development Participation District C</th>
<th>Pre NCLB</th>
<th>Post NCLB</th>
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</thead>
<tbody>
<tr>
<td>University Courses</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Internet Courses</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Community College Courses</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Conventions</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Workshops</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Involvement In A Development Improvement Process</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Individually Guided Activities</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Book Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation/Assessment</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Study Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inquiry/Action Research</td>
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<td></td>
</tr>
<tr>
<td>Mentoring</td>
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</table>

*Participation in Professional Development Model Pre and Post NCLB*

<table>
<thead>
<tr>
<th>Type of Professional Development Participation District D</th>
<th>Pre NCLB</th>
<th>Post NCLB</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Courses</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Internet Courses</td>
<td></td>
<td>X</td>
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<tr>
<td>Community College Courses</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Conventions</td>
<td>X</td>
<td>X – Less</td>
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</table>
Table 8 (continued)

*Participation in Professional Development Model Pre and Post NCLB*

<table>
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<th>Type of Professional Development Participation</th>
<th>District D (continued)</th>
<th>Pre NCLB</th>
<th>Post NCLB</th>
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<td>Workshops</td>
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<td>X</td>
<td></td>
</tr>
<tr>
<td>Training</td>
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<td>X</td>
<td></td>
</tr>
<tr>
<td>Book Studies</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Observation/Assessment</td>
<td>X – Tcr. Eval.</td>
<td>X</td>
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<tr>
<td>Study Groups</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Inquiry/Action Research</td>
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<td></td>
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<tr>
<td>Mentoring</td>
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<table>
<thead>
<tr>
<th>Type of Professional Development Participation</th>
<th>District E</th>
<th>Pre NCLB</th>
<th>Post NCLB</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Courses</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Internet Courses</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Community College Courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventions</td>
<td>X – Teams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshops</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td>X - Local</td>
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</tr>
<tr>
<td>Involvement In A Development Improvement Process</td>
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<tr>
<td>Individually Guided Activities</td>
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<tr>
<td>Book Studies</td>
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<tr>
<td>Observation/Assessment</td>
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<tr>
<td>Study Groups</td>
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<td></td>
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</tr>
<tr>
<td>Inquiry/Action Research</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentoring</td>
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<td>X</td>
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</tbody>
</table>

provided by District C, which included correspondence from the superintendent to the staff and a flyer of professional development classes for the 2004-2005 school year,
indicated on-going, job-embedded staff development. During this school year, the long-term staff development focused on introducing technology to the classroom. Other classes were also offered, and the superintendent had approved time during the day for such activities as observation and assessment. Also, in District C, teachers were trained as trainers and returned to the district to act as trainers and mentors. This model was also evident in District D, and according to the superintendent, was the preferred model for his district. Documents from this district (correspondence from the superintendent to the staff and professional development announcements) indicated the school had been involved in a curriculum development process in the area of reading for the last three years. This development process included use of data and a search for “best practices” in reading. Further, the superintendent and other members of the district participated for two years in the Professional Development Leadership Academy (PDLA) presented by Arizona Department of Education. PDLA provided an on-going, three-year process to develop a professional development plan for the district.

The spokesperson for District E stated the district was in the beginning phases of implementing professional development models required by NCLB (2001). District E hired a Professional Development Leader who accepted the full-time position at the beginning of the 2004-2005 school year. The district sent a team to PDLA and will complete the three-year cycle at the end of the 2006-2007 school year. At the end the cycle the district will have a future plan for district professional development. According to the district representative at the time of the interview, the district was working toward teacher acceptance of the change in culture.
Professional development was a very difficult thing before [we had] the Professional Development Leader. It was the same old get and take, except for the introduction of new programs. This is second year with the Professional Development Leader, and teachers now understand the importance of [increasing] skills as part of their learning.”

Leadership

Respondents in the study, superintendents or personnel acting on behalf of the superintendent, viewed their personal knowledge of professional development practices in relation to NCLB (2001) requirements in various ways as can be seen in Figure 2.

Representatives for Districts A and B self-reported limited knowledge of professional development practices required by NCLB (2001). District C, D, and E respondents reported above-average knowledge of professional development models required by NCLB. It should also be noted that although respondents for Districts A and B reported limited knowledge on a personal basis, Table 6 indicates both districts had benefited from state support. District A received guidance from a mentor superintendent, and District B participated in extensive school reform led by a state Solutions Team. It can be argued that the Solutions Team effectively functioned as a substitute leader with regard to professional development, because the Solutions Team intervention included extensive professional development experiences. Therefore, Districts A and B could also have self-reported above-average knowledge. However, for the purpose of this figure, respondents’ personal evaluations were honored.
Districts C, D, and E reported above average knowledge of professional development models required by NCLB (2001). The superintendents of District C and District D reported a long-standing interest in professional development as a way to improve student achievement, and both reported working to make professional development a part of the culture of their district before NCLB (2001). Each noted that professional development had also been an important part of the culture of the former districts in which they had worked. In addition, the superintendent of District D and members of his team spent two years in PDLA developing a district professional development plan. The spokesperson for District E also had personal interest in

Figure 2. Comparison of self-reported leadership knowledge of professional development models required by NCLB of leaders of districts: 1 = Limited, what others tell me, 2 = Average, based on some reading, 3 = Above average, knowledgeable about certain provisions, and 4 = Exceptional, comprehensive knowledge of the law as it relates to professional development.
professional development and was participating in the second year of a PDLA team, thus gaining knowledge to share at the district level.

**Finances**

Rural districts suffer from lack of funding for all programs and implementation of policy (GOA, 2004). However, three of the districts in this policy impact study indicted adequate funding for professional development activities as can be seen in Figure 3. District A strongly disagreed that adequate funding was available, and District B also reported a need for more funding.

All districts in this study were eligible for federal aid such as the Small, Rural School Achievement Program (SRSAP) and the Rural Education Achievement Program (REAP), as well as Title I, Title II, and state funds. District A reported the lowest amount of funding, and was by far the smallest district. Funding formulas are based on attendance, but the expenses of professional development remain the same no matter how large the school. Hence, a larger portion of District A’s budget must be directed toward professional development costs. As an example, District A must pay the same price to hire a trainer for 11 teachers as District C pays to train 61 teachers. District A was also unable to take advantage of local funding such as tax overrides because there was little money and few business partnerships that might help defray expenses within the community. This was also true for District E, however, the large number of free and reduced lunch population in District E brought more funding into the district and District E was almost four times as large as District A. District C and D were located in
communities with a higher tax base, with District C having the highest. District B was about the same size as District D, but was in an area which had a higher incidence of unemployment and was more isolated than District D. All of these factors played into the expense of professional development in the form of per-person cost for travel, accommodations, meals, materials, and other resources.

**District Size**

Figure 4 compares the size of districts included in this policy impact study. District A was the smallest district included in this study, enrolling fewer than 150 students. The largest ethnic group was Hispanic. This district employed 11 teachers and had only two schools, an elementary and a high school. Both schools were housed in the

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**Figure 3** Comparison of self-reported assessment of funding for professional development, in response to the statement, “There is adequate funding for professional development activities”? 1= Strongly disagree, 2= Disagree, 3 = Agree, and 4 = Strongly agree.
same building. By contrast, District C enrolled more than 960 students and employed 61 teachers; the largest ethnic group in this district was also Hispanic. This district had an

![Bar chart](image)

*Figure 4* Comparison of district size of Arizona’s rural districts in this study. 1 = Fewer than 300 students, 2 = 301-600 students, 3 = 601-900 students, and 4 = Greater than 900 students.

elementary school and a high school housed in separate buildings but on the same campus. Other districts in the study enrolled between 500 and 650 students. District B had 520 students and 37 teachers housed in three separate schools, primary school, intermediate, and the high school, each on its own campus. The largest ethnic group in this district was Caucasian. District D had 500 students and 33 teachers, and in this district the largest ethnic group was also Caucasian. Their four schools, primary, intermediate, middle school, and high school, were each in separate buildings, but all on the same campus. District E enrolled 570 students and employed 46 teachers, with the largest ethnic group being Native American. District E had an elementary school and a
high school located on separate campuses. The median student enrollment for districts in the study was 524 students.

*Isolation*

Districts included in this study were isolated from other districts as well as educational institutions as shown by Figure 5. Districts A, C, and E showed the greatest isolation factor, and Districts B and D indicated a lesser degree of isolation, but even this isolation factor was high. Figure 5 also informs us that District C could share with other districts by traveling 41-60 miles, and District E could share with other districts by traveling between 21-40 miles. However, both of these districts were more than 150 miles away from an educational institution such as the University of Arizona, Arizona State University, or Northern Arizona University.

All respondents in this study indicated that they took advantage of professional development programs provided by County Superintendent’s offices in their particular county. Often these were held in a central location in the county, but sometimes these could be a distance away. District A also belonged to a consortium of rural schools within a distance of 100 miles or less and took advantage of professional development opportunities within this consortium. District C showed about the same isolation factor, but also took advantage of working with other districts if possible. The superintendent of District C indicated however, that they preferred to bring experts to their district or send small groups of teachers to trainings outside the district who would return to train the
Comparison of self-reported distance district teachers must travel to share professional development with others or participate in an institutional setting. 1 = 0-20 miles, 2 = 21-40 miles, 3 = 41-60 miles, and 4 = 60+ miles.

other teachers within the district. Districts B and D were able to access professional development opportunities with other districts in about an hour’s time, and they share when possible. However, in the last two years, District B had trainers come to the district because of the State Solutions Team. Due to the need for travel, District D did much of their off-site professional development during summer hiatus. District E was able to reach districts in a more populated area in about 30 minutes. However, these districts had little in common with District E, consequently; personnel from District E traveled greater distances to engage in applicable professional development.

Community Affluence

As can be seen in Figure 6, all but one of the districts in this study was located in rural communities with median household incomes well below the state and national
medians. The USCB (City Data, 2006) reported the median income at the national level as $65,093, and the median income in Arizona as $58,206.

Figure 6  Comparison of the median income of communities within which districts in this study were located. 1 = Median income of less than $25,000, 2 = median income of $26-35,000, 3 = Median income of $35-40000, and 4 = $40,000+. In comparison, the median income in Arizona for 2006 was $58,206, in the United States, $65,093 (USCB, 2006).

The lowest median household income in this study was District E, with a median of less than $17,000. District A also had a low median income of less than $25,000 (City Data, 2006).

District Changes in Professional Development Practices

Earlier discussion related to Figure 1 of this study provided evidence that each of the districts in this study had made at least some progress toward implementation of models of professional development required by NCLB (2001) as described in Chapter 2 of this study. Table 8 compares the self-reported professional development practices pre-post-NCLB in each of the five rural Arizona districts in this study. Each district was
represented in an individual section of the table according to the professional models that were common within the district before the implementation of NCLB as compared with models introduced into the district post-NCLB. As can be seen in Table 8, districts included in the study displayed a wide variety of exposure to different professional development models, both pre-post-NCLB. Models of professional development employed in each district that reflected job-embedded, on-going, research-based practices called for in NCLB and described in Chapter 2 of this study have been underlined in the post-NCLB column.

Table 8 indicates that each of the districts made progress toward including the models of professional development required by NCLB (2001) since the inception of the law and was making progress toward full implementation. One interesting observation shown by the above figures was that District A, in which the respondent noted a low implementation of professional development models required by NCLB, in fact showed that in practice, not only were these models in place, but such models were in use before the inception of NCLB. Consequently, the conclusion might be drawn that District A was closer to implementation of job-embedded, long-term, collegial professional development than perceived by the respondent. However, a deeper individual study of District A would be necessary to make this determination, because there could be many explanations for these findings. Other explanations could include, but are not limited to, the fact that these models of professional development were used by individuals but were not collegial, and it is possible that trainings and workshops may have been short-term with little or no follow-up. It may also be true that professional development in this
district did not fit a specific program but was geared to individual interest. Hence, for the purposes of this study, the self-assessment of the district respondent was used.

Due to the assistance of the State Solutions Team, District B had also become familiar with job-embedded, long-term, collegial professional development. In districts C and D, we can ascertain that both had slight increases in the models of professional development in use but also evidence that professional development had been a part of the culture of the districts for a number of years. District E showed an increase in some models of professional development, and taken with information from the self-reported implementation, it can be seen that District E was just beginning to apply job-embedded, long-term, collegial professional development.

Other Factors

Other factors related to implementation noted by respondents of the districts included lack of time and lack of qualified substitute teachers. Both of these were noted as serious considerations but not deterrents to professional development by all district respondents. A study by Zimmerman and May (2003) concluded both these factors had a high impact as deterrents to implementation of professional development. Time was classified as the highest-impacting factor by principals in the Zimmerman and May study, and lack of effective substitutes was the fourth most frequently mentioned deterrent. Information from this policy impact study of Arizona’s rural districts supports earlier findings because respondents felt both time and lack of substitute teachers were barriers to be overcome in implementation of professional development practices required by NCLB (2001).
Interpretation of Data

When the state intervention factor for District B was taken into consideration as providing knowledgeable leadership, 100% of the rural districts included in this study showed an apparent relationship between the self-reported knowledge factor of the leader regarding professional development as required by NCLB (2001) and the district’s implementation level. One district showed limited knowledge at the district leadership level. That same district indicated a lack of capacity for implementation. Three of the districts (including District B, due to the state intervention) indicated an above-average level of leadership knowledge. These three districts reported making good progress towards implementation. One district reported above average level of leadership knowledge but a beginning level of implementation. However, this district was the only one in the study to employ a person directly responsible for professional development within the district.

Sixty percent of the districts also showed a relationship between district size and implementation of models of professional development as required by NCLB (2001). District A showed the smallest enrollment, fewer than 200 students, and lacked capacity for professional development implementation. Districts B and D enrolled between 300 and 600 students, respectively, and were making good progress toward implementation. District E enrolled more than 650 students and was just beginning to make progress toward implementation, and District C had an enrollment of more than 900 (but less than 1,000) students, and indicated it was making good progress towards the goal of implementing professional development practices required by NCLB.
Eighty percent of the districts showed a relationship between implementation and funding. Three of the districts studied indicated they had adequate finances, and two of these, C and D, were making good progress toward implementation. The third, E, was beginning to make progress toward implementation. District B self-reported inadequate funding but was making good progress toward the goal of implementation. The fifth district, A, had a serious lack of funding and lacked capacity for implementation.

The affluence level of 80% of communities in this study feel far below state and national standards, but this factor alone did not appear to affect the implementation of models of professional development required by NCLB (2001).

Eighty percent of the districts appeared to find isolating factors could be mitigated.

In this study, factors such as the affluence of the community and isolation, showed a lesser influence on the implementation of professional development programs required by NCLB (2001) than other factors. However, other studies (Mitchem and Richards, 2003; Rural School and Community Trust, 2003) indicated these factors impacted policy implementation in rural districts. Therefore, these factors may affect the implementation of professional development programs in ways that are not apparent in this study.

Summary of Findings

It was noted in this study of how factors of Arizona’s rural districts impact the implementation of models of professional development required by No Child Left Behind, that the data supported the observation that all five of the districts in this study
showed at least some progress toward the goal of meeting NCLB (2001) professional
development requirements, as seen in Table 8.

It was also noted that the common factors of isolation, small enrollments, and lack
of funding that affected a majority of rural schools (Johnson, 2004; NCES, 1997;
NCREL, 2004; Reeves, 2003) were also apparent in these districts. However, within the
districts included in the study not all of the above factors played an equal part in the
implementation, or lack thereof, of models of professional development required by
NCLB (2001). Data from this study also suggested the factor most directly impacting the
implementation of models of professional development required by NCLB (2001) was
leadership.

The following chapter first reviews the questions and methodology of this study.
The chapter then discusses the findings to construct reasonable links between factors
found within the districts and the degree of implementation of models of professional
development required by NCLB (2001).
CHAPTER 5

SUMMARY AND DISCUSSION

Statement of Problem

School reform through the implementation of policy has a long history in the United States (Heck, 2004). With the recent enactment of NCLB (2001), pressure has been brought for all-encompassing school reform and equal, high-quality education for every student, including those in rural districts (Jimerson, 2005). An important requirement of NCLB (2001) focuses on professional development as a means of reforming schools and improving student achievement by building teacher knowledge and skills.

Rural districts face substantial difficulties implementing policies, many of which stem from limited financial resources (NCREL, 2004). NCLB (2001) compels rural districts to implement models of professional development consistent with practices described within the law (Jimerson, 2004). Because rural districts already face obstacles such as financial difficulties, low enrollment, community poverty, and an inability to take advantage of economy of scale, the additional demand for professional development programs may be overwhelming (GAO, 2004). For these reasons, Arizona’s rural districts may lack capacity to implement models of professional development required by NCLB. This policy impact study was designed to explore the implementation of professional development in rural districts of Arizona under the requirements of NCLB.
Research Questions

This qualitative policy impact study researched the question of how factors of Arizona's rural districts impact the implementation of models of professional development required by No Child Left Behind. Drawing on information from related literature and other studies, this general question subsumed related questions, as follows:

- How are rural districts implementing the requirements for professional development outlined in No Child Left Behind (NCLB)?
- What models of professional development were used in the district(s) before the implementation of NCLB policies?
  - a. Have there been changes in professional development strategies used in rural districts since the implementation of the law?
  - b. Which of the models of professional development that are required by NCLB are reaching rural districts?

Summary of Methodology

To answer the questions of this policy impact study, methods of site visits, face-to-face interviews, and document research were used to compile information for cross-case analysis (Miles and Huberman, 1994). This was done to draw conclusions based on multiple factors that might inhibit or encourage policy implementation related to professional development within rural districts in Arizona. Prior to cross-case analysis, preliminary analysis was completed using matrices and summary tables to identify themes and patterns for data reduction to support conclusions as described by Miles and
Huberman (1994). Comparative and contrast tables were then developed to identify themes and patterns apparent in all cases.

Finally, to generate meaning and relate the themes and patterns of factors that affect implementation to the actual implementation of models of professional development required by NCLB (2001), a method of ordinal placement was devised for each factor and then compared and contrasted across cases. Written descriptions were then derived from this visual analysis to arrive at conclusions related to the research questions.

Summary of the Findings

In this study of five rural districts in Arizona, the factor that appeared to have the most direct impact on professional development implementation was the knowledge base of the leader. This was consistent with Flores’ (2003) finding, in which the researcher found that, “Most teachers believed that their learning in the workplace was influenced by the nature of communication within the school and especially by the kind of leadership existing within the school” (p. 17). Addressing the importance of leadership, SEDL (1993) stated, “The superintendent’s role is critical as an agent of change . . . one study found that superintendents of rural and small districts play a direct role as change agents” (p. 1). Although leaders in this study included both superintendents and principals, the principals were acting on behalf of the district as agents of the superintendent’s office for the implementation of professional development within the district.
The second strongest impacting factor that was inferred from the data was finances. Three of the districts indicated adequate funding, yet the respondents from all five districts acknowledged additional funding could be put to good use to cover travel costs, bring experts to the district, and fund training costs. The respondent for District D reinforced this when he stated, “I’d have more experts come in if there were more funding. The more experts who come in—the stronger my curriculum instruction.” The respondent for District A also bemoaned lack of funds and cited an inability to pay for training and travel as major obstacles to implementation of this policy. In spite of such obstacles, there were signs that districts such as C and D, as noted in earlier discussion, were finding creative ways to use funds, such as training small groups of teachers to act as trainers for the district in order to have a greater impact from professional development trainings. A similar phenomenon was seen in Kelly and McDiarmid (2002); it was noted that smaller districts may be more likely to focus professional development. “Lacking the fiscal and personnel resources of larger districts, small districts may maintain tighter control on professional development to get the biggest bang for the buck” (p. 15). Using creative alternative strategies such as teachers as trainers are appropriate models of professional development under NCLB (2001). Teachers as trainers can be used as the basis for models such as observation and assessment, mentoring, and participation in a development process. The “teacher-trainer” becomes an on-site leader who “can make a significant difference to the climate and culture of the school” (Gabriel, 2005, p. 3).

Another factor in this study that apparently impacted the implementation of professional development requirements of NCLB is district size. Information obtained
from this study suggested the size of the district impacted professional development practices. This was supported by the GAO (2004) report that school size had been a factor in the implementation of other NCLB requirements as well; “Rural districts also identified small school size . . . as greatly affecting their ability to implement [NCLB]” (GAO, 2004, Introduction). Generalizing the small size effect to implementation of professional development practices, districts in this study self-reported the impact of size in the following ways:

- A small administrative staff, who wear several hats, lacked time and expertise to handle the additional burdens of professional development.
- A smaller enrollment meant fewer funds according to state funding formulas, thereby limiting finances for all programs, including professional development.
- Smaller districts had fewer faculty members, often having only one teacher at any given grade level or subject area. This limited opportunities for collaboration.
- Each of the five districts in the study indicated a lack of qualified substitute teachers, which meant professional development activities must be planned either outside of school hours, or districts must find a way to schedule activities within the school day without replacing teachers.
- Finding the time for professional development within small districts was compounded by the small staff size and lack of substitute teachers.
Arizona’s rural districts included in this study faced many of the same challenges rural districts face throughout the United States as described in a plethora of literature related to the challenges of rural districts. Seemingly, therefore, it might be expected that the majority of Arizona’s rural districts have made little or no progress toward the implementation of models of professional development required by NCLB (2001). However, in this study, such an assumption appeared to be incorrect.

In order to draw a conclusion about the general question of how factors of Arizona’s rural districts impact the implementation of models of professional development required by No Child Left Behind, it was first necessary to address the subsumes of the general question, thereby building evidence in support of final conclusions.

How Are Arizona’s Rural Districts Implementing The Requirements For Professional Development Outlined In No Child Left Behind?

Each of the five districts in this study self-reported the degree to which the district was coping with the demands of professional development caused by NCLB (2001) policy using a rating scale of 1-10, with 10 being the highest. *Coping*, in this case meant progressing toward the goal of full implementation of models of professional development as required by NCLB. The term *implementation* is used to indicate the degree to which school districts had incorporated models of professional development as defined by NCLB into the school culture. Models of professional development required by NCLB are on-going, job-embedded, and long-term. NCLB encouraged districts to
implement these models of professional development by 2007. District responses are displayed in Figure 7.

![Bar chart showing self-reported coping levels of districts A to E](image)

**Figure 7.** Self-reported coping level of districts in relation to implementation of professional development models required by NCLB.

All five districts indicated a coping level of five or better, with nine being the highest. When this coping level was compared with the self-reported policy implementation level, as shown in Figure 8, interesting patterns emerged. In Districts C, D, and E, the coping and implementation levels showed little variance. In District A, there was a large variance—the respondent for the district felt the district was coping well (this is also supported by Table 8 which charts models of professional development used within the district)—but doubted the district would be close to full implementation by 2007.

District B, on the other hand, indicated it was on the way to having professional development models required by NCLB (2001) in place by 2007, but the district in
general was not coping well with the demands of implementation. “At first, our teachers were reluctant” the district spokesperson said, “but now they are beginning to see the value. Still, we have limited resources.”

![Coping Level and Implementation Level Comparison](image)

**Figure 8.** Comparison of coping level and implementation level of models of professional development as required by NCLB.

Attitudes in District B may have been shaped by the need for state intervention. The respondent saw the state as having been a great help and planned to continue state initiated programs, but he also felt the label that brought the State Solutions Team to his door was unwarranted. There was also frustration in District B due to the mobility of the staff. Teachers tended to leave this district because of isolation and low salaries. The respondent for District B described the situation in this way,
The State Solutions Team has been the biggest help, this year [2005-2006] they sent a mentor principal and a mentor teacher. The mentor teacher brought a lot of good ideas. However, we just get our teachers highly-qualified and then they leave because of isolation”.

Hence, according to the district spokesman State intervention had increased participation in professional development models required by NCLB (2001), such as involvement in a development process, individually guided activities, observation and assessment, inquiry or action research, and mentoring. Yet some of these teachers will leave, and teachers who replace them may not have had the same professional experiences, complicating plans for further professional development growth of the staff.

Have There Been Changes in Professional Development Strategies Used in Rural Districts Since the Implementation of the Law?

The rural districts studied in this policy impact study made changes in order to work toward implementation of professional development models required by NCLB (2001). Each of the five districts made some progress. Two of the districts, C and D, included job-embedded, on-going, long-term professional development in their school culture before NCLB and continued to make improvement as part of district culture. Information given by the superintendents, as well as written memos and staff development flyers, indicated a mature culture of job-embedded, long-term, collegial staff development. For example, districts used teachers as trainers, participated in development processes, and used mentoring to provide professional development opportunities. Districts A and B gained from state intervention programs, and two of the
leaders (D and E) participated in the Professional Development Leadership Academy (PDLA) sponsored by the ADE. All districts shared professional development with neighboring districts and brought in experts when possible.

What Models of Professional Development Were Used in the District(s) Before the Implementation of NCLB Policies? and Which of the Models of Professional Development that are Required by NCLB are Reaching Rural Districts?

The responses to both of the above questions are visually displayed in Table 8 of this study. The table shows the changes in models of professional development inherent in district cultures of the five districts in this study. Each of these districts took steps toward implementation of professional development practices encouraged by NCLB (2001) and continued to modify and refine their efforts. It was apparent from data collected in this study that professional development models required by NCLB were reaching the rural districts despite factors that impacted policy implementation.

Districts C and D began to incorporate models of professional development required by NCLB (2001) before such models were required by federal policy. The respondent for District C stated, “We are committed to professional development,” and this attitude was also apparent in District D where the respondent affirmed, “Our goal is student achievement, and you can’t move whole groups of kids without everyone having the skills to do so.” Leaders in both Districts C and D were well informed about the benefits of professional development. The personal knowledge and commitment of leaders in these two districts translated into active professional development programs for district personnel.
Districts A, B, and E were introducing models of professional development required by NCLB (2001) in response to the policy and were working toward the goal of full implementation. The respondent for District E expressed feelings apparent in all three districts, “We are making our teachers aware and working at changing their attitudes. Good teachers want professional development and are working to make it happen.” This was apparent in the changes each district had made in the emphasis individual districts placed on professional development.

Conclusions: How Factors of Arizona’s Rural Districts Impact the Implementation of Models of Professional Development Required by No Child Left Behind

This policy impact study showed that the five districts reviewed for were indeed implementing professional development practices to some degree. Also, the data indicated consistency among the knowledge level and commitment of districts' leadership and the level of implementation of models of professional development required by NCLB (2001). This in turn links to the findings of Youngs and King (2002) that effective, committed leadership can build and sustain capacity for implementation of policy. The impact of new professional development policies on rural districts included in this study is neither dramatic nor unexpected when compared to earlier findings (Hair, et al., 2001; Killion, J. 2002; Youngs and King, 2002). No district in this study expected to reach the goal of job-embedded, long-term, collegial professional development by 2006-2007, but four of the five districts indicate they are working towards the goal of establishing professional development models required by NCLB. Delay in full implementation appeared to be impacted by a number of concerns: (1) leadership, (2)
finances, (3) time, (4) district size, and (5) a combination of other factors such as isolation and community affluence. Each of these concerns is explored in more depth in the following sections.

Leadership

All districts in this study showed the highest relationship between the factor of leadership and level of implementation of professional development programs. Districts were impacted either positively or negatively by the ideas and passions of leaders (Fullan, 2001; Snowden and Gorton, 2002). In this study, leadership was personified by superintendents or those persons acting on behalf of the district. Looking at leadership through the theories that supported this study (found in Chapter 2), it can be seen that the five Arizona rural schools in this study were strongly influenced by their environments, as well as social, economic, and political factors. All of these were characteristics of both systems theory and institutional theory (Cooper, et al., 2004; Heck, 2004; Hoy and Miskel, 2005). Under these circumstances, in which districts were working to change the culture of professional development, the end result must be institutional change. Therefore, leadership in rural schools is a complex role that must overcome environmental obstacles to reform the institution while satisfying various political pressures and interest groups. In spite of this complicated process four of the five schools in this study were progressing toward implementation of models of professional development required by NCLB (2001).
Finances

Rural schools are always impacted by a shortage of funds (GAO, 2004; Jimerson, 2004; Reeves, 2003; Williams, 2003). This is further supported by the Rural School and Community Trust (2006), “Professional development, supplemental services, and teacher recruitment efforts—especially for remote districts—are often more expensive in rural areas” (p. 1). And, in truth, respondents in this study indicated that this fact held true in the area of implementation of professional development models required by NCLB (2001). Although all the districts in this study were eligible for federal grants under the SRSA, REAP, and other state and federal programs, including Title I and Title II (GOA, 2004), federal constraints and district choice often assigned these funds to programs other than professional development. Equity issues arise in the areas of finances. Districts in this study have had little opportunity to augment funds through tax levies due to the low level of community affluence (USCB, 2000). Consequently, 80% of rural districts in the study had limited budgets. In some districts the impact of restricted finances for professional development programs had been a stumbling block—every respondent in the study voiced the desire for more funding for professional development. Yet, all of the districts made an effort to mitigate the impact of scarce funds by creative thinking and the use of government agencies. The respondent for District A noted a few helpful programs, “Through ASSET [Arizona School Services through Educational Technology, Arizona State University] membership, consortium [a voluntary group of rural schools] and county [superintendent’s office] we do training we couldn’t do on our own.” All of the districts reported sharing professional development with other districts whenever
possible, and all five of the districts within the study took advantage of activities sponsored by county superintendent’s offices. However, respondents reported an unfortunate impact of sharing professional development was that training could not always be focused on an individual district’s needs.

Teachers in each of the five districts included in the study also availed themselves of the opportunities for professional development presented by electronic learning, such as ASSET. The majority of the districts economized on travel and registration expenses by training small groups of teachers as experts. These experts then instructed the rest of the faculty and acted as mentors during implementation of new skills. In effect, this practice had the positive impact of establishing the job-embedded, on-going, collegial professional development required by NCLB (see Chapter 2), while stretching the district professional development budget.

Time

All of the respondents in the study observed that a factor impacting implementation of professional development models required by NCLB (2001) was time. By nature, administrators and teachers in rural districts wear more than one hat (Districts C and D, personal communication, March 2006), consequently, implementing the models of professional development required by NCLB impacted administrators’ and teachers’ roles and schedules. The district in turn was impacted by the necessity of providing time within an already crowded school calendar, requiring institutional adjustment and change. Another problem with finding time was that the five districts in the study had the common problem of lack of availability of substitute teachers. Districts in this study
addressed the negative effect of time in varying ways. Some districts, such as B and D, set aside time within the school day for professional development. District C, on the other hand, offered professional development outside of normal school hours, often during summer hiatus. Districts A and E were just beginning to struggle with factors of time for professional development.

*District Size*

The total student enrollment, which in this study was defined as the district’s size, impacted 60% of the districts included in the study. The impact of district size on policy implementation was consistent with earlier research (GAO, 2004). Small districts lacked both certified and support staff, which put extra demands on district personnel. Small size also affected funding. These in turn impacted policy implementation such as professional development.

The smallest district in this study, District A – which enrolled fewer than 200 students—self-reported the lowest level of implementation. The respondent for District A noted,

> It is a size issue. What is designed as the ideal [is not always possible]. What are minimum requirements becomes the issue, not whether there is good stuff in NCLB (2001), but the issue is, is it practical in the real world?"

All other districts in the study, including District E, had more than 500 students. The largest, District C, has just under 1000 students. While Johnson, Howley, and Howley (2004) identified several positive aspects of rural schools, including size, whereas NEA (2005) stated that small rural schools seldom received adequate funds for implementing
federal programs. This fact impacted all implementation of policy, and therefore, it can be generalized that under-funding also impacted the implementation of models of professional development required by NCLB in the five rural districts included in this policy impact study.

Implications for Current Practice

This study addressed the question of how factors of Arizona's rural districts impact the implementation of models of professional development required by No Child Left Behind. The study revealed several factors impacting the selected districts that can inform current practice.

First, all rural districts included in this study were impacted by the knowledge and commitment to professional development exhibited by district leadership. Leadership displayed the highest relationship with the implementation level of professional development practices required by NCLB (2001). This was supported by Earley and Bubb (2004) who stated, “People and their training and development—their continuing professional development—must be seen as an investment and it is therefore essential that each school establishes not only [a professional development program] but also the means of its implementation through effective management and leadership” (p. 2). The concept that a leader can have an important impact on policy implementation was also supported by systems theory, “which emphasizes the critical role of the immediate environment in shaping policy . . . at the implementation and evaluation stages” (Cooper, et al., 2004, pp. 22-23). This suggested that district leadership could impact the implementation of professional development models in other rural districts, as well as
larger urban districts. Therefore, state agencies and educational institutions, such as the University of Arizona, Arizona State University, and Northern Arizona University, should continue to develop and expand programs in Educational Leadership and find ways, such as distance learning, to encourage leaders in rural districts to participate in such programs. The State Department of Education should also continue and expand existing grant programs to assist rural districts in attending PDLA.

Secondly, Arizona’s rural districts in this study reported that although they did not have all the funds they would like to implement professional development models required by NCLB (2001), creative use of existing funds produced positive implementation of professional development models required by NCLB. Participation in models of professional development such as study groups, individually guided activities, and action research can be daunting in the beginning, but once initiated, such programs can be self-sustaining with knowledgeable teacher leaders (Gabriel, 2005). To accommodate effective training for implementation of professional development models required by NCLB, a more equitable funding process may be necessary for rural districts that lack a supportive tax base.

Thirdly, each of the districts in this policy impact study had experienced growth in student achievement since the inception of NCLB (2001), as indicated by the state assigned performance labels depicted in Table 4. As an example, this can be seen in the experiences of District B. In the year 2003-2004, the primary school in District B was labeled a failing school. During the 2004-2005 school year, a state intervention team assisted the district. Under the guidance of the state intervention team, the primary
school moved from failing to performing, and the elementary school moved from performing to performing plus. Part of the state assistance, according to the district respondent, included an emphasis on professional development and good practices focused on the school's needs. This pattern was reinforced by NCLB, and Earley and Bubb (2004), who noted that professional development impacted student achievement. “Professional development is crucial for organizational growth and school improvement. The professional growth of teachers and other staff is a key component of developing children’s learning” (p.17). Hence, it is critical for rural schools to find creative ways to bring professional development to local districts until such a time as adequate funding becomes available.

Finally, information gained in this study indicated that rural districts with small staffs were able to adapt and incorporate professional development models required by NCLB (2001). Therefore, it seems possible that with effective training, such models can be incorporated into other rural districts.

Implications for Future Research

This study confirmed many earlier studies in the areas of leadership theory concerning factors that affect rural schools (Jimerson, 2004; Killion, 2002; Reeves, 2003). Still, questions remain for further research. One such question concerns district size. There is much literature that explores the effect of district size on various aspects of education but little that explores the effect of size on professional development. In this study, those districts enrolling an excess of 500 students were, in general, working towards professional development models as required by NCLB (2001). The smallest
district, enrolling fewer than 200 students, appeared to be having more difficulties in this area. Future research is needed to ascertain whether a district can be too small for adequate professional development without external assistance, or if “smallness” can be overcome by other factors such as leadership or financial support.

This policy impact study took into account a variety of professional development models that are consistent with NCLB (2001) definitions of job-embedded, on-going, collegial professional development (See Chapter 2). There are certain models of professional development that seemed to be particularly suited to the constraints of rural districts, such as action research, individually guided activities, and observation and assessment. A future study might evaluate the effectiveness and applicability of such models to rural districts.

This study focused on district-level attitudes and practices. A future study of teacher attitudes toward professional development in rural schools might provide insight into the successes, special needs, or frustrations of rural teachers in the implementation of site-base, job-embedded, collegial professional development.

Funding appeared to be a constant source of frustration for rural districts. A study of state tax reform and/or revenue sharing policies might reveal more equitable ways to fund professional development implementation in rural districts.

This study is centered on the experiences of Arizona’s rural districts included in the study. A comparison of Arizona’s rural districts to rural districts in other southwestern states would provide a broader picture of the impact that the NCLB (2001) requirements of professional development have on rural schools.
Limitations of the Study

There are some limitations of this policy impact study. One such limitation is that the sampling in this study was purposive and not random. Also, the sample included a narrow section of rural schools. There are many rural districts in Arizona with only one school and enrollments of fewer than 100 students. The experiences of implementing professional development models consistent with NCLB (2001) requirements may be very different in these situations.

Other limitations included the fact that the sample was small and, therefore, findings may not generalize to all other situations. Also, this study was limited to leadership's evaluation of professional development implementation within a given district. A more in-depth picture could be portrayed by including other stakeholders' attitudes and opinions. Data may include prejudicial factors, because they were self-reported. To mitigate prejudicial factors, the researcher kept careful field notes in the effort to achieve a comprehensive description of each district and respondent.

Summary

This policy impact study researched the question of how factors of Arizona’s rural districts impact the implementation of models of professional development required by NCLB. The researcher identified five rural districts in Arizona and applied case study methods of interviews, site visits, and document study. Each of the districts in this study made progress toward the implementation of such models of professional development. However, no district included in this study expected to meet NCLB (2001) requirements for full implementation of these models during the 2006-2007 school year.
Themes and patterns apparent from data gathered from this study indicated the factor that most impacted the implementation of models of professional development required by NCLB (2001) was the knowledge and commitment of district leadership. Other factors e.g., finances, time, district size, isolation, and community affluence, also impacted the implementation in varying degrees.

Implications for current practice included training of leadership in rural schools to raise knowledge level and commitment to implementation of professional development. To accommodate this implementation in rural districts more equitable funding may be necessary. Also, it appears critical that rural districts continue to find creative ways to bring professional development models consistent with NCLB (2001) requirements into individual districts. Lastly, information from this study provided encouragement that such models of professional development can be incorporated into other rural districts.

Future research needs to provide answers to several questions, such as whether a district can be too small to incorporate models of professional development required by NCLB (2001) without external assistance. Secondly, a question remains as to whether there are certain models of professional development that are more applicable to rural settings. Finally, a comparison of implementation of models of professional development required by NCLB in rural and urban districts would provide a broader picture of the impact of this policy throughout the State of Arizona.
APPENDIX A:


Professional Development Requirements of NCLB

PROFESSIONAL DEVELOPMENT- The term professional development' —

(A) includes activities that —

(i) improve and increase teachers' knowledge of the academic subjects the teachers teach, and enable teachers to become highly qualified;

(ii) are an integral part of broad school-wide and district-wide educational improvement plans;

(iii) give teachers, principals, and administrators the knowledge and skills to provide students with the opportunity to meet challenging State academic content standards and student academic achievement standards;

(iv) improve classroom management skills;

(v)(I) are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom; and

(II) are not 1-day or short-term workshops or conferences;

(vi) support the recruiting, hiring, and training of highly qualified teachers,
including teachers who became highly qualified through State and local alternative routes to certification;

(vii) advance teacher understanding of effective instructional strategies that are —
   (I) based on scientifically based research (except that this sub-clause shall not apply to activities carried out under part D of title II); and
   (II) strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers; and

(viii) are aligned with and directly related to —
   (I) State academic content standards, student academic achievement standards, and assessments; and
   (II) the curricula and programs tied to the standards described in sub-clause (I) except that this sub-clause shall not apply to activities described in clauses (ii) and (iii) of section 2123(3)(B);

(ix) are developed with extensive participation of teachers, principals, parents, and administrators of schools to be served under this Act;

(x) are designed to give teachers of limited English proficient children, and other teachers and instructional staff, the knowledge and skills to provide instruction and appropriate language and academic support services to those children, including the appropriate use of curricula and assessments;

(xi) to the extent appropriate, provide training for teachers and principals in the use of technology so that technology and technology applications are effectively used in the classroom to improve teaching and learning in the curricula and core
academic subjects in which the teachers teach;
(xii) as a whole, are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement, with the findings of the evaluations used to improve the quality of professional development;
(xiii) provide instruction in methods of teaching children with special needs;
(xiv) include instruction in the use of data and assessments to inform and instruct classroom practice; and
(xv) include instruction in ways that teachers, principals, pupil services personnel, and school administrators may work more effectively with parents; and

(B) may include activities that —

(i) involve the forming of partnerships with institutions of higher education to establish school-based teacher training programs that provide prospective teachers and beginning teachers with an opportunity to work under the guidance of experienced teachers and college faculty;
(ii) create programs to enable paraprofessionals (assisting teachers employed by a local educational agency receiving assistance under part A of title I) to obtain the education necessary for those paraprofessionals to become certified and licensed teachers; and
(iii) provide follow-up training to teachers who have participated in activities described in subparagraph (A) or another clause of this subparagraph that are designed to ensure that the knowledge and skills learned by the teachers are implemented in the classroom. (No Child Left Behind, Title IX, Part A, Section 9101, 34)
APPENDIX B

SAMPLE OF THE SEMI-STRUCTURED INTERVIEW

Professional Development Practices in Small and Rural Districts in Arizona
Semi-structured Interview
Frieda J. Bingenheimer-Rendahl
University of Arizona

School ________________________________
District ______________________________
Subject of Interview _________________________ Position ________________

1. In general, how has your district fared in implementing the requirements of NCLB?

2. What obstacles have you experienced during the implementation process? What successes have you had in implementing the NCLB professional development requirements?

3. What has been the most helpful to your district in implementing requirements of NCLB?

4. Please describe the areas of student achievement that your district feels either need to be addressed or are areas of pride.
5. Explain how professional development has helped you improve teacher skill and student achievement.

6. To what degree are the stakeholders of your district informed about the concept of professional development required by NCLB?

7. On a scale of 1-10, how do you feel your district is coping with meeting PD requirements of NCLB? On what do you base your answer?

8. Describe what you see as obstacles/pluses to implementing the concept of PD required by NCLB.
9. In which types of professional development experiences have teachers in your district participated pre-NCLB. (Check all that apply)
   o University courses
   o Internet courses (from __________
   o Workshops
   o Training
   o Involvement in a development improvement process
   o Individually guided activities
   o Community College courses
   o Conventions
   o Book studies
   o Observation/assessment
   o Study group
   o Inquiry/action research
   o Mentoring

10. In which types of professional development experiences have teachers in your district participated since the passage of NCLB, (Check all that apply)
   o University courses
   o Internet courses (from __________
   o Workshops
   o Training
   o Involvement in a development improvement process
   o Individually guided activities
   o Community College courses
   o Conventions
   o Book studies
   o Observation/assessment
   o Study group
   o Inquiry/action research
   o Mentoring

11. Will your district be in compliance with the professional development model required by NCLB by 2006-2007?
   o Yes
   o No

12. In order to share professional development activities with teachers in another district, how far would you need to travel?
   o 0-20 miles
   o 20-40 miles
   o 40-60 miles
   o Over 60 miles

13. There is adequate funding in your district for professional development activities.
   o Strongly Disagree
   o Disagree
   o Agree
   o Strongly Agree

14. Professional development programs in our district are based on the model required by NCLB.
   o Strongly Disagree
   o Disagree
   o Agree
   o Strongly Agree
15. In the last year teachers in our district have participated in professional development to build skills in reaching students from poverty and minority students.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

16. Teachers in our district understand the difference between the NCLB’s expectations for ‘professional development’ and one-day workshops and conferences.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

17. Teachers in our district have the opportunity to work collaboratively to solve problems and design curriculum that is applicable to our schools.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

18. Because of the pressures resulting from NCLB relating to professional development, teachers in our district have:

- Less PD than last year
- About the same amount of PD as last year.
- Somewhat more PD than last year.
- Significantly more PD than last year.

19. Professional development activities in our district are regularly evaluated.

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

Please explain the type of evaluation:

20. NCLB calls for all teachers to experience high-quality professional development as part of their daily work. How close is your district to this goal?

- We do not have the capacity to work on this goal.
- We are beginning to work on this goal.
- We have made good progress towards this goal.
- We have already reached this goal.

Please explain further:
21. My knowledge of high-quality professional development practices is:

- Limited – what others tell me.
- Average – based on some reading.
- Above average – knowledgeable about certain provisions.
- Exceptional – comprehensive knowledge of the law.

Please share any other information you would like.

* Some questions in this interview have been patterned after the *Introduction to the NCLB Survey* from NSDC (Mizell, 2005). Used by permission
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