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Home-Grown Teachers: Will Their Rural Roots Keep Them in Virginia's Rural Schools

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A dissertation submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy at Virginia Commonwealth University.

by

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In memory of Dr. Debra Sue Kelley

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Abstract

HOME-GROWN TEACHERS: WILL THEIR RURAL ROOTS KEEP THEM IN VIRGINIA'S RURAL SCHOOLS?

By Camilla M. Hodgson, Ph.D.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

Virginia Commonwealth University, 2010.

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The purpose of this research, based on Tönnies's theory of Gemeinschaft and Durkheim's theory of mechanical solidarity, was to determine if there were differences between rural Virginia teachers from rural areas and those from nonrural areas in their perceptions of salary, isolation, working conditions, NCLB requirements, and job satisfaction, as well as their plans to remain in rural schools. It also was to determine if there was a relationship between rural and nonrural backgrounds and the rural teachers' intentions to remain employed in rural schools.

Rural teachers from each of Virginia's eight Superintendents' Regions were selected and were asked to respond to an on-line survey. Their responses were collected and the data were analyzed using SPSS. The findings of this research showed that perceptions of isolation and working conditions were significant predictors of teachers' plans to remain in rural schools.

Although the findings of this research did not show rural origin to be significant, the concept of community that is inherent in ruralness was indicated by the significance

of the relationship between feeling membership in the community and plans to remain in a rural school. In addition, the findings of this research supported the development of the grow-your-own programs discussed in the literature review. This research showed that established residency in the rural area and feeling membership in the rural community significantly influenced the decision to remain in a rural school.

Chapter 1: Introduction

Overview

Without a doubt, one of the most important factors affecting student learning is the quality of the classroom teacher (Ingersoll, 2001). Providing experienced, high-quality teachers for students has been shown to have a major positive effect on student achievement (Prince, 2002). The American Association of School Administrators found that 70% of principals surveyed felt that the experienced teachers in their schools were better with instruction, assessment, and curriculum. Inexperienced teachers were not as effective (National Commission on Teaching and America's Future [NCTAF], 2003; Darling-Hammond, 1997).

Unfortunately, not all students, especially those in rural and low-income areas, are provided with experienced teachers. These schools do not have adequate numbers of experienced teachers due to high turnover rates. Quality teaching is reduced, in part, due to the large numbers of inexperienced teachers concentrated in those communities (NCTAF, 2003). Because experienced teachers play such an important role in student success or failure, an area of particular concern in the nation's efforts to improve overall student achievement is the low retention rate for teachers in rural districts across the nation (Hammer, Hughes, McClure, Reeves, & Salgado, 2005; McClure, Redfield, & Hammer, 2003; Prince, 2002; Schwartzbeck, Prince, Redfield, Morris, and Hammer, 2003).

Based on information from the Schools and Staffing Survey (SASS) designed by the National Center for Education Statistics and collected by the U.S. Census Bureau for

1990-91, rural schools had a yearly teacher turnover rate of 14.5%. SASS data for the 2004-05 school year showed a 15% turnover rate for rural teachers NCES, 1995; NCES, 1997; NCES, 2004). More recently, the Rural Teacher Retention Act of 2007, introduced in the United States Senate on February 14, 2007, stated that rural school districts experience retention rates lower than those of other districts. Similarly, a news release from U.S. Senator Ken Salazar indicated that the rural teacher turnover rate remains at approximately 15% nationwide.

Although this 15% rural turnover rate is roughly equivalent to the nonrural turnover, the impact of such a turnover is felt more strongly in the smaller rural school where fewer staff, faculty, and students equate to closer working relationships between members of the school community (Hammer et al., 2005; McClure et al., 2003; Schwartzbeck, 2003). Also, smaller, more isolated schools have fewer applicants (Collins, 1999), thereby making it more difficult to replace a 15% yearly turnover.

Low pay, difficult working conditions, meeting the No Child Left Behind standards for highly qualified teachers, and isolation have been identified as the major factors for low retention rates for rural teachers (Beeson & Strange, 2003; Collins, 1999; Hammer et al., 2005; Prince, 2002). Of the identified factors, isolation, both geographic and professional, created by the location of the rural area and the social isolation stemming from not belonging to the community or understanding the rural way of life, has been cited as being most responsible for low rural teacher retention.

Rural areas have their own way of life based on tradition, kinship, and community (Howley, Theobald, & Howley, 2005; Lemke, Lichenberg, & Arachtingi, 1992). Rural

schools are often at the center of communities whose values and perceived needs are at odds with the "one best system" (Tyack, 1974, p. 23) intended to standardize American public education. The one best system (Tyack) for educating American youth, envisioned and implemented by educational reformers of the mid-1800s and still valued by proponents of standardized academics, does not incorporate regional needs or community values and is often not appreciated by those involved in rural education.

The influence of the rural community on the education of its young people and on its teachers is better understood through the framework of two social science theories: Tönnies's Gemeinschaft and Gesellschaft and Durkheim's mechanical and organic solidarity (Ward & Stone, 1996). In the late 1880s, the writings of Ferdinand Tönnies described the close relationships and shared values of rural areas as Gemeinschaft. Gemeinschaft loosely translates from German to mean "community." Tönnies viewed rural communities as places of shared commitment to the improvement of the entire community where personal relationships directed action more so than formal organization. Gesellschaft, or "association" was Tönnies's description of urban areas where interactions were impersonal and intended to benefit the individual.

According to Tönnies's theory (Ward & Stone, 1996), Gemeinschaft (rural life) and Gesellschaft (urban life) represent different directions. As stated earlier in the introduction, Gemeinschaft (rural life) and Gesellschaft (urban life) represent different directions. In rural areas, Gemeinschaft communities exist. People value each other for who they are, not for what they can provide. Interactions are face to face by people who share kinship and values. In urban areas, Gesellschaft communities exist. Urban areas

are composed of people from different areas who do not share kinship or values and who interact with each other specifically to attain certain goals. Rural areas rely on tradition as the driving and controlling force for behavior whereas urban areas demand different forms of social control.

Members of rural communities work together for the good of the community, not for individual gain whereas urban people seek individual benefits. In rural areas, tasks and personal relationships are intertwined whereas relationships are subordinate to the task in urban areas. Social status in rural areas is ascribed whereas urban status is achieved, and there is little social change in rural areas whereas social change occurs rapidly in urban areas (Ward & Stone, 1996).

Similarly, Durkheim's theory of mechanical and organic solidarity recognizes distinct differences between rural and urban communities similar to those stated by Tönnies. Rural communities are created through their shared values and traditions and characterize Durkheim's theory of mechanical solidarity. The strengths of the rural community emerge from the sameness of the members of the community and the culture created by their likeness.

Urban communities, based on differences and structural interdependence, are descriptive of Durkheim's theory of organic solidarity. Urban residents do not share the self-sufficiency of their rural counterparts. The strength of the urban community arises from the need for interdependence among the members of the community to obtain goods and services.

Both theories illuminate the fundamental differences in rural and nonrural areas. Rural areas are interactive on a personal basis, concerned with kinship and community values, and focused on the common good whereas nonrural areas are interactive based on need and focused on the good of the individual (Ward & Stone, 1996). It may be the discord between these Gemeinschaft-Gesellschaft perspectives when teachers from nonrural areas are recruited into rural areas that makes it difficult for rural schools to retain teachers.

In rural communities, the bureaucratization of American public schools that began in the 1800s created urban-like, or Gesellschaft, schools in the heart of rural, or Gemeinschaft, areas. According to Howley et al. (2005), "the rural outlook on living well is so different from the mainstream (suburban) norm that it is vilified and romanticized, and rarely understood or authentically appreciated by outsiders" (p. 5). Teachers beginning employment in public schools in rural areas may find themselves expected to meet national and state standards of achievement in communities that may not place the same emphasis on formal education (Kannapel & DeYoung, 1999).

In addition, teachers entering rural school districts may find that they do not understand the ruralness of the area at all. Teachers moving into rural areas to teach often have difficulty adjusting to the community and are unable to find the social support systems with which they are familiar (Collins, 1999; Lemke, 1994; Lemke et al., 1992). These teachers often do not continue their employment in rural districts. Rural schools have trouble finding qualified teachers who can adjust to the school and community and who are willing to remain with the school system (Collins).

Although it may be the Gesellschaft quality of teachers from nonrural areas moving into rural communities to teach that causes low retention rates for rural schools, it may be the Gemeinschaft quality of the rural community surrounding the school that provides a solution to the recruitment and retention issue. Recruiting teachers from rural areas to teach in rural schools has been shown to be effective in increasing retention rates (Clewell & Villegas, 2001a).

Purpose of the Study

National and state educational organizations are advocating that individual states develop specific strategies and programs to recruit and retain rural teachers. Programs that recruit from nontraditional teacher candidates and from paraprofessionals already in the schools as well as those that are intended to recruit capable rural students into teacher preparation programs have been put into place (Clewell & Villegas, 2001b; McClure et al., 2003). Some of these, such as the *Reader's Digest* Pathways to Teaching, have ended whereas others such as the South Carolina's Center for Educator Recruitment, Retention, and Advancement are still in use.

The aforementioned programs are designed to encourage rural community members to become rural teachers. The programs are intended to prepare teachers who will remain employed in the rural schools. The rationale for these programs is that teachers from the community will belong to the community and will understand the rural way of life. They will be personally connected to the students and, therefore, will be more inclined to remain employed in the rural school district (Clewell & Villegas, 2001a; Collins, 1999; McClure et al., 2003). In essence, the isolation, difficult working

conditions, low salaries, and NCLB requirements that have been identified as the major reasons that teachers leave rural schools will not be as significant for teachers who are already familiar with rural life.

The purpose of this study was to determine if there are differences between rural Virginia teachers from rural areas and rural Virginia teachers from nonrural areas in their perceptions of salary, isolation, working conditions, NCLB requirements, and job satisfaction, and if there is a relationship between rural and nonrural backgrounds and the rural school teachers' intentions to remain employed in rural schools.

Statement of the Problem

In 1999, the American Association of School Administrators described recruiting and retaining quality teachers as a major problem for rural school districts (Collins, 1999). If rural schools are to recruit and retain quality teachers, the teachers must feel that they have a place in the community and they must be comfortable with the ruralness of the area. Because ruralness is a way of life as well as a geographic location, teachers with rural backgrounds, experiences, or circumstances that predispose them to fit into rural areas should be targeted for employment (Clewell & Villegas, 2001a; Collins; McClure et al., 2003).

Tönnies's theory of Gemeinschaft versus Gesellschaft or community versus association and Durkheim's theory of mechanical and organic solidarity both emphasize that members of rural communities are connected on many levels and work together for the good of the community whereas nonrural residents do not engage in community-based personal interactions. It can be inferred, based on the works of Tönnies and

Durkheim, that teachers from rural communities understand the needs of the rural school and that they are familiar with and prepared to accept the idiosyncrasies of ruralness. It then follows that the factors that influence teachers who are not from rural areas to leave rural school districts do not have the same influence on rural school teachers who are from rural areas.

Rationale of the Study

According to the National Center for Education Statistics (2003b) and the Congressional Rural Teacher Retention Act of 2007, there were more than 8,000,000 rural students attending 24,123 public schools in 8220 rural school districts across the United States. These students made up 21% of all children attending public school. The schools represented 31% of all public schools in the United States. There were more than 617,000 rural public school teachers. More recently, according to the National Center for Education Statistics (2009b), there were more than 9,106,749 rural K-12 students attending 7,608 rural school districts across the United States. These students constituted 18.9% of all children attending public school. There were 853,850 rural public school teachers (NCES, 2009).

A study by Beeson and Strange (2003) revealed that the State of Virginia had 366,946 rural students in 79 rural school districts. The same study showed that 27% of Virginia's population was rural, equaling 1,908,560 people; 28% of Virginia's public school students were enrolled in rural schools. Of the public schools in Virginia, 35% were rural. A recent report (Johnson & Strange, 2009) showed that 376,894 students or 31.2% of Virginia's students were rural. The median number of rural students per state

in the United States was 131,129. Virginia had the fifth largest number of rural students of the 50 states in the U.S. Rural schools made up 36.5% of the total number of schools in Virginia.

The aforementioned statistics indicated that rural teacher retention rates had an impact on 31.2% of Virginia's students and 36.5% of Virginia's public schools (Johnson & Strange, 2009). This information represents an area of concern to educational leaders. Any identified differences in retention rates and in the importance of the factors determining retention between rural teachers from rural areas and rural teachers from nonrural areas potentially can be used to improve and implement strategies to retain rural school teachers.

The results of this study are intended to help provide direction for the development of programs to recruit and retain rural teachers. Retention allows teachers to become more experienced. More experienced teachers are typically better qualified, and it is the goal of public schools to improve student achievement by providing a qualified teacher for every classroom (Beeson & Strange, 2000; McClure et al., 2003).

Overview of the Literature

Educational reformers of the late 1800s and early 1900s believed that the key to providing the best education possible to rural students was to change the way rural schools were organized and conducted (Kannapel & DeYoung, 1999; Tyack, 1974). Rural schools were thought to be improved through reorganization and restructuring, using a management style modeled after the large factories that were quickly becoming the major employers in the rapidly expanding urban areas (Tyack). Although the rural

people and their community-oriented way of life did not change, the schools did. The school that acted as the social center of the community became staffed by professional educators who were not always from the community and who did not understand the community and the impact of the relationship between community and school (Kannapel & DeYoung; Theobald, 1997).

The achievement of rural students is affected by the low retention rates for rural teachers (Clewell & Villegas, 2001a; Prince, 2002). A study by Arnold, Newman, Gaddy, and Dean (2005) found that low rural school teacher retention rates were an area of concern in a number of studies they reviewed. Arnold et al. determined there was a need for rural specific research to understand the problem.

According to Collins (1999) rural research was limited. Based on a Rural School and Community Trust study, McClure et al. (2003) asserted that states must develop specific policy for rural education and that much research was required. Howley et al. (2005) expanded upon the need for rural research by stating that rural research must include a consideration of "rural" meaningfulness to be valid. Accordingly, the social theories of Gemeinschaft and mechanical solidarity (Ward & Stone, 1996) should be considered when discussing rural education as they provide insight into the differences between rural and nonrural communities rather than viewing ruralness as simply the number of individuals in the community.

One of the difficulties for researchers in rural education is that there is no single definition for rural. The definition of rural as a way of life based on kinship, tradition, and community (Howley et al., 2005) is very similar to Tönnies's Gemeinschaft, and

Durkheim's mechanical solidarity. All three theories view rural communities as places where personal relationships are more important than formal organization, and all three state that members of rural communities feel a shared commitment to the betterment of the entire community. Members of rural communities also share values and traditions that create a sense of strength. The strength of the rural community emerges from the sameness of its members and the culture created by their likeness. Taken together, these concepts form the definition of the term rural for this research.

Although definitions may differ, common characteristics of rural schools affect the demands on the teachers who staff them. Rural schools are smaller on average than nonrural schools and tend to be underfunded due to low tax bases and little industry (McClure et al., 2003). Rural teachers are paid less than their colleagues in nonrural schools. Teachers in rural locations are often expected to teach multiple content areas and multiple grades levels with fewer resources and are expected to supervise extracurricular activities (Guarino, Santibanez, & Daley, 2006; Hammer et al., 2005; Ingersoll, 2001; McClure et al.; Schwartzbeck, 2003).

In addition, rural teachers are often professionally isolated as well as geographically and socially isolated. Teachers who move into rural areas to teach often relocate far from family and friends, familiar cultural and social outlets, and opportunities to continue their education (Guarino et al., 2006; Hammer et al., 2005; Ingersoll, 2001; McClure et al., 2003; Schwartzbeck, 2003). Rural teachers are under the close scrutiny of the community in which the school is located. Rural schools often serve as the center of the community and as such, community members have a great deal of influence on

school issues (Guarino et al.; Hammer et al., 2005; Ingersoll; McClure et al.; Schwartzbeck).

Data from 53,000 teachers across the United States obtained through the 1990-91 Schools and Staffing Survey, as analyzed by Ingersoll and Alsalam not in ref (1997), indicated that teachers in rural schools were less committed to teaching than their counterparts in nonrural schools. It was hypothesized that this phenomenon is due, at least in part, to a lack of fit into the rural community experienced by teachers of nonrural origin moving into rural areas to teach.

Often, rural teachers from nonrural areas are trained in programs that do not prepare teachers for challenges that rural communities can present (Kannapel & DeYoung, 1999; Theobald, 1997; Howley & Howley, 2004). Teachers moving into rural areas are often indoctrinated into the "one best system" (Tyack, 1974, p. 23) approach and do not understand the community's attitudes toward education. They strive without success to teach an appreciation of education that locals who do not plan to leave the area do not understand (Kannapel & DeYoung; Seal & Harmon, 1995). They are also unprepared for different forms of social support systems to be found in rural areas (Lemke et al., 1992).

A discussion of several current strategies used to recruit and retain rural teachers was provided in a study by Hammer et al. (2005). These strategies included incentives for teachers, programs to improve recruitment and hiring based on local data, improved school-level support, interactive technology, and grow-your-own programs. The grow-your-own programs focus on recruiting capable community members into the teaching

profession based on the assumption that hiring locals will increase retention rates. Similarly, research by Clewell and Villegas (2001a) conducted with over 2,500 participants in the Pathways to Teaching Careers Program, an innovative project intended to recruit and prepare teachers from specific groups for target areas, indicated that grow-your-own programs create certified teachers who already know and understand the environment from which their students come, who tend to mirror the ethnic make-up of the community of which they are a part and who are already tied to the community.

Virginia has been identified by Johnson and Strange (2009) as a state with a critical need to address rural education as 31.2% of the student population is rural and 36.5% of the public schools in Virginia are rural. Virginia has already implemented programs to assist with teacher retention. The Teach in Virginia plan recruits capable teacher candidates for hard-to-staff subjects in hard-to-staff schools. Innovative Teacher Recruitment Grants have been awarded to staff high-poverty rural school divisions. Career Switchers is an educational program working through the Virginia Community College System to assist private sector professionals in their transition to K-12 employment. In addition, the Teachers for Tomorrow program works toward the goals of retention strategies by engaging high school students with an interest in education in preteaching programs (Virginia Department of Education [VDOE], 2006).

The aforementioned programs, available to all qualified candidates, do include the assumption, as part of the effort to staff rural schools, that being rural will influence teachers to stay in rural schools. Nevertheless, the programs are relatively new, with little data having been collected regarding their effectiveness. Therefore, research was

needed to support this assumption. The intent of this study was to determine if there is a relationship between rural teachers who identify themselves as rural and those who identify themselves as nonrural and their intentions to continue teaching in a rural school and to determine if teachers' origins and perceptions of specific factors related to retention and job satisfaction affect their decisions to stay in rural schools. It was believed that if factors identified as affecting the retention rates of rural teachers were found to have less impact on teachers originating from rural areas, the finding would support the development of programs to recruit rural people for rural teaching positions to increase retention rates in those schools (Clewell & Villegas, 2001a).

Research Questions

Based on the idea of rural community defined by Tönnies's Gemeinschaft and Durkheim's mechanical solidarity (Ward & Stone, 1996), the question was raised regarding whether or not hiring rural people to teach in rural schools would increase rural teacher retention rates. It was hypothesized that rural teachers have a more positive perception of the factors affecting teacher retention in rural areas. It was also hypothesized that teachers who consider themselves rural are more likely to remain teaching in rural schools.

To add to the evolving knowledge base on rural teacher retention, it was the intent of this research to compare rural Virginia teachers who identified themselves as rural and those who identified themselves as nonrural on their intentions to continue teaching in a rural school and to determine if teachers' origins and perceptions of working conditions,

salary, isolation, NCLB requirements, and job satisfaction affect their decisions to stay in rural schools. The study attempted to answer the following questions with the intention of contributing to the development of programs to improve teacher retention rates in Virginia's rural schools.

1. What is the effect of origin on teachers' tenures or decisions to stay in a rural school?
2. To what extent do teachers' origins and perceptions of several factors (working conditions; salary; geographic, social, and professional isolation; effects of NCLB requirements; and job satisfaction) predict whether teachers plan to stay in rural schools?

Overview of the Methodology

The research design was quantitative, using information obtained by surveying a sample of teachers employed by rural schools in Virginia. This nonexperimental approach allowed the relationship between the independent variable and dependent variables to be identified without the manipulation of those variables (McMillan, 2004). A self-administered Web-based survey, accessed by a link to an electronic survey site that was e-mailed to a selected sample of rural teachers, was used to collect data for analysis. Data collected through this study may provide information needed to develop programs to increase rural teacher retention. Any relationships found between the compared variables will inform the direction of future research.

The participants for this study were selected from teachers currently employed as full-time K-12 classroom teachers by rural school districts in the State of Virginia. The

districts were identified through the National Center for Education Statistics. District information was obtained from the VDOE, and e-mail lists of employees were collected from the selected rural districts. Superintendents of the rural Virginia districts selected were identified through VDOE and were contacted by letter and by phone. The research and its intent were explained and an offer to share results with the school district was presented. Permission was requested to survey the district teachers, and the superintendent was asked to provide a list of e-mail addresses for teachers employed by the district.

An e-mail cover letter with a URL link was sent to each intended participant asking him or her to respond to the on-line survey within a 1-week period. Participants were advised that all responses would be confidential. An e-mail reminder was sent 3 days after the initial contact and again after 7 days. Data were collected on-line and transferred to SPSS for analysis.

Definitions

The definition of rural as a way of life based on kinship, tradition, and community (Howley et al., 2005) is very similar to Tönnies's Gemeinschaft and Durkheim's mechanical solidarity. All three view rural communities as places where personal relationships are more important than formal organization, and all three state that members of rural communities feel a shared commitment to the betterment of the entire community. Members of rural communities also share values and traditions that create a sense of strength. The strength of the rural community emerges from the sameness of its

members and the culture created by their likeness. Taken together, these concepts formed the definition of rural for this research.

Other terms requiring definitions are as follows:

- NCLB is an abbreviated form for the *No Child Left Behind* Act of 2001, Public Law 107-110.
- Retention, as used in this research, means to remain employed.
- The term *teacher satisfaction*, as used in this research, indicates contentment with and enjoyment of current teaching position.
- The term *isolation* means to be set apart, withdrawn, or removed, socially, geographically, or professionally, from significant others.

It was the purpose of this study to determine if teachers' origins and perceptions of specific factors determining retention and job satisfaction affect their decisions to stay in rural schools and if there is a relationship between rural or nonrural origins and teachers' intentions to continue teaching in rural schools. The data collected are intended to aid in the development of programs to increase retention rates of rural teachers.

Chapter 2: Review of the Literature

Purpose

The purpose of this review of the literature was to support the need for this research concerning the retention of rural school teachers. First, it provides a brief history of rural education; an overview of rural schools today, including definitions for rural, Tönnies's Gemeinschaft and Gesellschaft and Durkheim's mechanical and organic solidarity theories; and a summary of statistics concerning rural schools in the United States and in Virginia. Second, it provides a summary of current research on rural education and the areas identified as important to rural education today. Third, it presents discussion regarding the problem of teacher recruitment and retention and its implications with regard to student achievement in rural schools. Fourth, programs intended to improve teacher recruitment and retention in rural schools are reviewed. The last section focuses on current efforts in Virginia to recruit and retain high-quality teachers for rural areas.

The study informed by this review of the literature intended to determine if teachers' origins and perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction affect their decisions to stay in rural schools. Because of the likelihood of multiple-subject teaching assignments in rural schools, NCLB requirements also were considered. It was believed that if rural teachers from rural areas were found to be less influenced by these retention factors, were more satisfied with their employment, and planned to stay in rural schools longer, the results of this study might

aid in the development of programs to recruit and retain teachers from rural areas for rural school districts.

Rural Schools

To fully understand current issues in rural education, it is necessary to understand the nature of rural schools and the communities that give rise to them. To that purpose, a definition of rural, a definition of the theories of Tönnies and Durkheim (Ward & Stone, 1996) that informed this study, and a brief history of the evolution of rural schools from their small, localized beginnings to the larger consolidated institutions of today are presented.

The theoretical basis for this research rested upon two theories: Tönnies's Gemeinschaft and Gesellschaft and Durkheim's mechanical and organic solidarity (Ward & Stone, 1996). Both theories are concerned with the differences in structure and function between rural and urban societies. As stated earlier in the introduction, Gemeinschaft (rural life) and Gesellschaft (urban life) represent different directions. In rural areas, Gemeinschaft communities exist. People value each other for who they are, not for what they can provide. Interactions are face to face by people who share kinship and values. In urban areas, Gesellschaft communities exist. Urban areas are composed of people from different areas who do not share kinship or values and who interact with each other specifically to attain certain goals. Rural areas rely on tradition as the driving and controlling force for behavior whereas urban areas demand different forms of social control.

Members of rural communities work together for the good of the community, not for individual gain whereas urban people seek individual benefits. In rural communities, tasks and personal relationships are intertwined whereas relationships are subordinate to the task in urban areas. Social status in rural areas is ascribed whereas urban status is achieved, and there is little social change in rural areas whereas social change occurs rapidly in urban areas (Ward & Stone, 1996).

Durkheim's theory of mechanical and organic solidarity recognizes distinct differences in rural and urban communities similar to those stated by Tönnies. Rural communities are created through their shared values and traditions and characterize Durkheim's theory of mechanical solidarity. The strengths of the rural community emerge from the sameness of the members of the community and the culture created by their likeness.

Durkheim's theory of organic solidarity describes urban communities that are based on differences and structural interdependence. Urban residents do not share the self-sufficiency of their rural counterparts. The strength of the urban community arises from the need for interdependence among the members of the community.

Fundamental differences in rural and urban areas are brought to light by both Tönnies's and Durkheim's writings. A rural area is personal and focused on the common good whereas a nonrural area is impersonal and focused on the good of the individual (Ward & Stone, 1996). Knowledge of these underlying differences in rural and nonrural societies is useful in understanding the history of the rural school and the rise of the problems associated with such schools today.

Rural schools before the 1900s were typically small. All aspects of schooling from the construction of the building to the hiring of the teacher were completely controlled by the community members. The rural teacher before the 1900s was often housed with a community member and was very much influenced by the perceived needs of the local people (Tyack, 1974). The school usually consisted of one room and was built by community members on a centrally located parcel of land donated by a community member (Theobald & Nachtigal, 1995; Tyack). The teacher was often selected more for who the teacher was than for how qualified he or she was. Indeed, Theobald and Nachtigal recounted a story in which a school superintendent was hired because he was "country" and would understand what the rural community expected.

The curriculum that was taught was consistent with the desires and needs of the locality. Rural schools, controlled by rural parents, believed that the goal of school was to teach reading, writing, and math along with the values of the community and a sense of community interest (Kannapel & DeYoung, 1999; Tyack, 1974). The expected outcome of school was the education of children in rural matters (Tyack; Urban, not in ref 1999). Kannapel and DeYoung asserted that the same goal of academic achievement combined with community values and interest was still in place in rural areas.

Beginning in the mid-1800s, professional educators such as Horace Mann, William T. Harris, and John Dewey recognized the changes occurring in economic and political structures in the United States and saw the need for a restructuring of public education as well (Tyack, 1974). As the national focus shifted from an agrarian to an industrial economy, rural youth moved to urban areas for work. Nevertheless, the rural

school agenda did not coincide with the needs of a developing industrial nation in the late 19th and early 20th century that demanded urbanized workers for factory jobs in the rapidly growing cities (Tyack).

Rural areas, with their agricultural focus, were losing large numbers of inhabitants to the newly organized cities with their factory jobs. School reformers believed that the role of the school was to prepare people for employment. The educational practices of rural areas with their small, community-oriented schools were no longer adequate, in their opinions, to educate young people for the demands of factory work (Tyack, 1974; Urban, 1999). The educational reformers did not believe that people trained by rural schools in the Gemeinschaft and mechanical solidarity concepts of rural life were prepared for city life and factory employment (Tyack; Urban). Education reformers argued that the community-driven education provided by small locally controlled rural schools was in opposition to the needs of the young people leaving the country for urban life (DeYoung & Lawrence, 1995; Kannapel & DeYoung, 1999; Tyack; Urban).

Because new employment was in the cities and factories, educational reformers believed that schools should be organized in a similar fashion (DeYoung & Lawrence, 1995; Kannapel & DeYoung, 1999; Tyack, 1974). Creating schools based on the bureaucratized organization of cities and the factories therein would expose rural students to the expected norms of the city life for which they were being trained (Tyack; Urban, 1999). According to the theories of Gesellschaft and organic solidarity, members of urban areas did not share values or kinship and interacted for the purposes of achieving

certain goals. Schooling them in this fashion would prepare them for their entrance into urban life.

Professional educators, beginning in the mid-19th century, believed and acted on the premise that "…a community dominated by an essentially provincial form of education could no longer equip youth to deal either with the changed demands of agriculture itself or with the complex nature of citizenship in a technological, urban society" (Tyack, 1974, p. 14). National models of school reform were viewed by educational leaders as the way to standardize and improve rural schools: in other words, to change the end product of rural education from youth prepared for work on the farm to youth ready for the new industrialized urban areas (Kannapel & DeYoung, 1999; Tyack; Urban, 1999).

Reformers pushed the notion that small rural schools should be merged to create larger, standardized, more efficient schools that functioned in a fashion similar to the industries that students were being trained to enter and whose products were educated workers (Tyack, 1974; Urban, 1999). This push contributed to the reduction in the number of schools in the United States from 238,000 to 79,876 between 1903 and 1992 (DeYoung & Lawrence, 1995).

The typical rural school of the early 1800s was very much identified with the community that created and supported it; therefore, the physical and instructional aspects of each school were individualized to that particular community. Flexible scheduling, using older students as teacher aides for the younger students, and nongraded primary

education were part of the design and operation of rural schools to meet the needs of geographically isolated and dispersed populations (Tyack, 1974; Urban, 1999).

Nevertheless, professional educators sought to establish a bureaucratized hierarchy that would remove control of rural schools from the community and would create standard procedures and curricula for all rural schools, indeed for all schools. Changes were to be made in the physical structure and organization of rural schools to make them more in line with the changing view of education and its role in preparing citizens (DeYoung & Lawrence, 1995; Kannapel & DeYoung, 1999; Tyack, 1974; Urban, 1999).

Focused on a late 1890s report by the newly formed National Education Association's Committee of Twelve, educational leaders and rural school reformers "…mostly agree[d] on the remedies: consolidation of schools and transportation of pupils, expert supervision by county superintendents, taking the schools out of politics, professionally-trained teachers, and connecting the curriculum with the everyday life of the community" (Tyack, 1974, p. 23). The intent of the reformers was to provide a uniform rural educational system guided by trained professional educators and designed to teach values and vocational skills to rural children (Tyack). Rural schools were destined to become part of the one best system based on conformity, procedure, and standardization (Tyack). Kannapel and DeYoung (1999) wrote,

> Professional educators set out to centralize, consolidate, and professionalize rural schools. Often in spite of strong local opposition, large, central, consolidated schools eventually became the accepted standard as a result of declining rural

enrollments, improved transportation, increased curricular demands, and escalating state financial incentives and accountability schemes. (p. 70)

Rural educational reformers were successful in implementing changes in the structure and function of rural schools but they were not perhaps as successful in convincing rural communities that these changes were necessary. The Gesellschaft organization of the reformers' schools conflicted with the Gemeinschaft organization of the rural communities in which the schools were located. In 1914, Elwood Cubberley wrote that the problem with rural education was that rural leaders did not understand the rural-life problem and wanted to control their own schools without knowing what was "good for them in the complex new society" (as cited in Tyack, 1974, p. 21). The rural education problems identified by professional educators in the 1890s, however, were not necessarily seen as problems by rural community members. Indeed, rural reformers did not understand that while their perspectives on education had changed, rural attitudes had not (Tyack; Urban, 1999).

In rural areas, formal schooling was seen as a part of the overall education of a child, not as education's only source. From the rural parents' perspective, lessons learned from family, church, and manual labor were just as important as learning to read, write, and do arithmetic. Rural parents were not as interested in developing human capital for the national economy as they were in ensuring that their children were educated in matters of living (Bard, Gardner, & Wieland, 2005).

Perhaps the newly formed educational bureaucracies of the late 1890s simply created a new set of problems for rural schools from which current rural problems

evolved (Bard et al., 2005; Kannapel & DeYoung, 1999; Tyack, 1974; Urban, 1999). There was discord between the reformers' views of a single uniform system of education employing professional educators with standardized training to meet the needs of an industrialized, urban society and the traditional rural school perspective of employing qualified members of the community to teach to the needs of the community. This discord created a dilemma that has evolved into the rural school problems, such as low teacher retention rates, that are apparent today.

Definition and Characteristics of Rural Schools Today

The U.S. Census Bureau simply defines rural as "not urban." *Webster's Ninth New Collegiate Dictionary* defines rural as "of or relating to the country, country people or life, or agriculture." Similarly, *Webster's New World Thesaurus* lists rustic, farm, agricultural, ranch, pastoral, bucolic, backwoods, country, agrarian, and agronomic as synonyms for rural. Indeed, the *Condition of Education in Rural Schools* published by the U. S. Department of Education (Stern, 1994) indicated that defining rural is was a very real problem.

Due to the lack of a concrete definition of rural, researchers have been creative in developing definitions that match the purpose of their study (Howley et al., 2005). Accordingly, rural education research has been categorized into two groups: (a) rural specific, concerning issues unique to rural areas; and (b) rural context, including research conducted in a rural area but not specific to rural issues (Arnold et al., 2005). Rural-specific research represents research on issues that are specific to rural communities

whereas rural-context research can address any issue that happens to be studied in a rural area. This research relied on rural-specific literature.

In the 1990s, the National Center for Education Statistics created locale codes based on population size and density and on proximity to metropolitan areas. The locale codes have the advantage of being assigned at school level according to individual school addresses. Using locale codes, an area with fewer than 2,500, not within a core based statistical area (CBSA), and labeled rural by the Census Bureau is assigned the number 7. If the area is labeled rural by the Census Bureau, has fewer than 2,500 and is within a CBSA, the area is assigned the number 8 (NCES, 2003).

In 2006, the NCES revised the locale codes in response to better technology in geographic location and also in response to the National Census Bureau's work to improve differentiation between cities of different sizes and between towns and suburbs, and to describe towns and rural areas in relation to their distances from urban areas (Schneider, 2006). The revised rural code numbers were 41, 42, and 43; however, the changes had the greatest effect on the numbers of schools classified as towns as opposed to suburbs. There was little change in urban or rural designations (Schneider).

There is an abstract concept of way of life that permeates issues of rural education. Rural represents more than the area in which one lives; it refers also to how one lives (Howley et al., 2005; Urban, 1999). Rural education combines a sense of independence and self-reliance with cooperation and an expectation that what needs to be done will be done by whoever is able. There is an understanding that school and community cannot be separated.

Rural schools share a set of similar characteristics regardless of their location. Typically, rural schools are smaller than nonrural schools, salary and benefit packages are less for rural teachers than those in nonrural schools, and teachers are less prepared and less experienced than those in nonrural schools (Hammer et al., 2005; Hare & Heap, 2001). Rural schools are geographically isolated as well (Hammer et al.).

According to the National Center for Education Statistics (2004b), the average rural school (locale code 7) had 265 students whereas the average large city school (locale code 1) had 644 students. Although the rural schools were smaller, these sizes were proportional to the smaller numbers of people located in rural areas and represented centralized schools. Research showed that salaries were lower in all educational categories in rural areas: "In 2003-2004, rural teacher salaries averaged $41,131 compared to $43,460 for small towns and $50,844 for suburban areas, the biggest competitors for rural teaching talent" (Hammer et al., 2005, p. 4). Rural superintendents reported to the U.S. Government Accountability Office in 2004 that the lower salaries offered by their districts placed them at a disadvantage concerning the retention of high-quality teachers (Hammer et al.). Rural teachers are usually younger and less experienced than nonrural teachers.

Rural schools also tend to have more community involvement than nonrural schools. Although all public schools must meet No Child Left Behind requirements and most public schools are accountable for state standards of learning, rural communities exert more influence on rural schools' daily activities and on the teachers than nonrural communities exert on their schools (DeYoung & Lawrence, 1995; Kannapel & DeYoung,

1999; Stern, 1994;). The economic and social conditions of rural areas have a great effect on families' decisions concerning education and preparation for work. Rural schools typically do not offer as many advanced classes as nonrural schools, and rural students typically are less likely to attend college and are more likely to prepare for low- to middle-skill-level jobs (Gibbs, 2000; Hertoz & Pittman, 1995). In addition, extracurricular activities and school-sponsored sports are very important to rural districts (DeYoung & Lawrence).

Rural Statistics

Using locale codes, the National Center for Education Statistics (NCES, 2003a) compiled data based on the 2003-2004 school year on the numbers of schools and students in the United States classified as rural. More than 50% of school districts were rural; approximately 30% of public schools were rural. According to NCES, there were 8,524,484 rural students in the United States in 2003. This number represented 18% of the total population of students enrolled in public schools in the United States. The Rural Teacher Retention Act of 2007, sponsored by U.S. Senator Ken Salazar, reported that 21% of all public school students in the United States attended rural schools. For the school year 2006-2007, there were 9,063,790 students in rural schools across the United States, representing 19% of students in public schools (Johnson & Strange, 2009).

For the year 2003-2004, Virginia had the ninth largest rural enrollment in the United States with 366,385 students in rural school districts. This enrollment accounted for 28.2% of all Virginia K-12 students. Rural schools received 28.8% of Virginia's education funding. The rural per capita income in Virginia was $20,415; 10.5% of rural

families with school-age children were living below the federal poverty line. Of rural households headed by females with preschool-age children, 41% lived below the federal poverty line. Only 69.0% of rural students graduated from high school in 4 years; 27% of rural adults did not have a high school diploma as opposed to an average of 18% across the United States (Beeson & Strange, not in ref 2005).

In the 2006-2007 school year, Virginia was ranked fifth largest in rural enrollment in the United States with 376,894 rural students. Rural schools accounted for 36.5% of Virginia's school districts, and rural schools received 34.5% of the state's educational funding (Johnson & Strange, 2009).

According to Beeson and Strange (2000), states were ranked based on rural importance and rural urgency. Each category was based on a number of specific indicators analyzed for each of the 50 states. Rural importance focused on "how important is it to the overall educational performance of each state to explicitly address the particular needs of schools serving its rural communities. Eight indictors of the scale, proportion, and challenge of rural education in the state [were] considered" (Beeson & Strange, p. 64). Based upon the indicator choices of *useful*, *important*, *very important*, and *critical*, Beeson and Strange found that Virginia was ranked as *important* on the rural importance gauge.

Urgency was based on existing rural school and community conditions and responses to the question, "How urgent is it in each state that policymakers develop explicit rural education policies? Eleven indicators were used to quantify the need for concern, including some that compare[d] the conditions in the state's rural schools with

those of its non-rural schools" (Beeson & Strange, p. 63). Virginia received a rating of *critical* on the rural urgency gauge, based upon the choices of *fair*, *serious*, *critical*, and *urgent*.

In the Beeson and Strange report for the year 2000, Virginia had the ninth largest number of rural students in the United States and rural importance and urgency ratings of *important* and *critical*, respectively. Beeson and Strange recommended research on rural education in Virginia.

Johnson and Strange (2009) found that Virginia had the 19th lowest graduation rate for rural students for the 2006-2007 school year; further, Virginia was 28th lowest in the nation for rural instructional expenditures per pupil while having the fifth largest rural enrollment. Using a scale of *notable*, *important*, *very important*, and *crucial*, rural education in Virginia was ranked as *important*. Using the same scale, educational policy context was ranked as *very important*. Using a scale of *fair*, *serious*, *critical*, and *urgent*, educational outcomes were ranked as *critical*. Concentrated poverty among rural students was also ranked as *critical* (Johnson & Strange).

Major Issues in Rural Education

A review of literature on rural education revealed a need for research specifically focused on rural education issues (Arnold et al., 2005; Howley et al., 2005; Kannapel & DeYoung, 1999; Larsen, 1993; Sherwood, 2000). The question seemed to be what type of research was necessary. Although some researchers argued for true experimental design focused solely on understanding strategies for improving rural schools and rural student achievement (Arnold et al.), others maintained that any research on rural

education issues must include an understanding of ruralness as a way of life (Howley et al.; Kannapel & DeYoung). Both camps agreed, however, that there were specific areas of rural education that needed to be examined more fully. One of these areas was the recruitment and retention of quality teachers for rural schools. Low teacher retention in rural school districts had been identified as an area of major concern in rural education that needed to be addressed.

One indicator of the need for rural teacher retention research was a study conducted by Mid-continent Research for Education and Learning (McREL) (2005), using the ERIC and PsycInfo databases. This study identified 498 journal articles published between 1991 and 2003 that were concerned with rural education issues.

These articles were categorized according to their main focus. The 10 areas of research in rural education receiving the most attention were the following:

- programs and strategies for students with special needs,
- instruction,
- school safety and discipline,
- student life and work planning,
- factors influencing academic achievement,
- students' attitudes and behaviors,
- education leadership,
- staff recruitment and retention,
- teacher preparation and professional development, and
- teachers' beliefs and practice (Arnold et al., 2005).

Special needs programs were found to be the most widely studied issue in rural education, with 78 articles (15.7%). Students with disabilities, gifted and talented instruction, and at-risk strategies were the focus of the special needs category. Instruction followed with 40 articles (8.0%). The use of technology and articles on math, science, and reading instruction were the most common topics in the instruction category.

The next highest number of articles (28, 5.6%) were concerned with school safety and discipline, specifically violence in schools, suspension policies, and corporal punishment, whereas student life and work planning was studied in 22 (4.4%) of the reviewed articles, with student aspirations and career education appearing the most often. Factors influencing academic achievement and students' attitudes and behaviors were each addressed in 21 articles (4.2%). School locale (rural versus nonrural) and the effects of school size were addressed in the factors influencing academic achievement category whereas the only subtopic to emerge from students' attitudes and behaviors was rural student perception of content areas. Educational leadership, specifically administrators' behaviors and leadership roles, was reflected in 20 articles (4.0%). Teacher preparation and professional development addressing technology and specific development strategies was addressed in 20 articles (4.0%). Slightly fewer, 18 articles (3.6 %) focused on teachers' beliefs and practices including differences in rural versus nonrural classroom management as well as reading programs and strategies. Staff recruitment and retention generated 20 articles (4.0%) focusing on why teachers come to rural schools and why they leave. Of the 20 articles concerning staff recruitment and retention, 7 were specifically related to teachers' reported reasons, such as salary and working conditions,

for leaving rural schools and 4 focused on issues of stress and burnout that contribute to low retention among rural teachers. Although the McREL (2005) study identified numerous areas of concern for rural education, it was the intent of this research project to focus solely on the rural teacher retention issue.

Other studies reviewed for this research on rural teacher retention independently corroborated the McREL findings of low salary and poor working conditions. A study by Hammer et al. (2005) found that retention factors such as low salary, difficult working conditions, isolation, and meeting NCLB requirements for highly qualified teachers were all areas of concern that warranted research. Similarly, a study published by Schwartzbeck, Prince, Redfield, Morris, and Hammer (2003), based on data compiled from 896 surveys completed by rural district superintendents, identified several areas of concern in rural teacher retention. The major concerns were isolation, low salary, poor physical working conditions, and multiple teaching assignments with little opportunity for training. In 2004, the Education Alliance published a report identifying social, geographic, and professional isolation; school-community relations; poor facilities with limited resources; low salary; and NCLB requirements as contributing factors for low rural teacher retention rates.

Retention of Rural Teachers: Overview

High-quality teachers are in high demand. Student achievement is positively impacted by the presence of high-quality teachers in the classroom. A majority of high school principals believe that experienced teachers know more about instruction, assessment, and curriculum (Prince, 2002). Experienced teachers are better classroom

managers and better instructors. A teacher's education, experience, and skill have a great deal of influence on student achievement (Prince). Unfortunately, the first years of a teacher's career are often the only years of that career.

Overall, approximately 33% of all of the teachers in the United States decide to leave teaching during their first 3 years of employment. Almost 50% leave the teaching profession after 5 years (Ingersoll, 2001). In addition, a review of literature conducted by Guarino et al. (2006) indicated that teachers with "higher measured abilities have a higher probability of leaving" (p. 14). Similarly, a study on New York public school teachers found that more qualified teachers had a lower rate of retention (Lankford, Loeb, & Wyckoff, not in ref 2002). Specific content areas such as science and math are less likely to retain high quality teachers (Guarino et al.). A study by Ingersoll and Alsalam (1997) using 1990-1991 SASS data also found that specific content areas were harder to staff.

Self-reported commitment to teaching is lower for teachers in rural schools (Guarino et al., 2006). Approximately 15% of teachers leave rural schools yearly (NCTAF, 2003). Low retention rates are costly in terms of actual funding and in the quality of education provided to students. Nationally, the cost to replace teachers leaving teaching or transferring to other schools is approximately $5,000,000,000 annually (Alliance for Excellent Education, 2004). Each new teacher who chooses to leave in the first few years of teaching has cost the school approximately $11,000 in recruitment and training (Emerick, Hirsh, & Barry, 2005).

Annual turnover rates of 15% in rural schools create real concerns about the quality of the instruction provided to students for the following reasons:

- low retention rates make it difficult to create an atmosphere of cohesion and collegiality among faculty;
- successfully implementing long-term school improvements is problematic when new faculty have to be trained each year; and
- low retention rates also "subject students to a revolving door of teachers who do not stay long enough to know them well and teach them effectively" (Emerick et al., 2005, p. 2).

Low retention rates deny students the opportunities to learn from experienced teachers and focus the attention of administrators and the allocation of funds on recruitment rather than instruction (McClure et al., 2003; NCTAF, 2003; Shen, 1997).

According to the National Center for Education Statistics (2004), 83% of all United States public schools had vacancies. More then three fourths (79%) of rural schools had teaching vacancies, and 18% of those rural schools hired teachers with minimum qualifications and experience. Less qualified teachers generate lower student achievement. For example, the 1996 National Assessment of Educational Progress revealed that eighth-grade students in rural areas of the Southern Regional Education Board had lower scores on national math assessments than eighth-grade math students in urban and suburban areas of the same region. Of those rural math teachers, 29% held an elementary education certificate compared to 16% of eighth-grade math teachers nationwide (Cooney, 1998), indicating that students achieving higher scores in math had math teachers with endorsements in math rather than elementary education. It follows that rates of retention need to be improved to reduce the need to employ less experienced,

less qualified teachers. The more experience a teacher has the better prepared and better qualified that teacher becomes. Better qualified teachers equate to higher achievement for students (Prince, 2002).

The No Child Left Behind Act of 2001 guidelines for highly qualified teachers maintain that teachers be fully certified by the state in which they teach (provisional, emergency, or temporary certification does not meet the requirement), that the teachers hold at least a bachelor's degree, and that the teachers demonstrate subject matter competence in each of the core academic subjects they teach. According to the NCLB, all schools were required to employ only highly qualified teachers by the year 2005-2006. There is a more personal side to being high quality, however, in a rural sense. Lemke (1994) wrote,

> The ideal rural teacher is someone who is comfortable with the rural way of life and capable of wearing many hats; that is, certified to teach multiple subjects or grade levels, prepared to supervise several extracurricular activities, and able to teach students of differing ability levels within a single classroom. (p.1)

Teachers choose to leave rural schools for a number of reasons. Much of the literature available on rural education strove to reveal those reasons. An examination of why rural teachers decide to leave rural schools may provide insight as to possible solutions and ways to improve retention rates.

Salary. A review of the cited reasons for low rural retention rates revealed that low salary is one of the major issues facing rural schools. Oftentimes rural schools cannot compete with urban and suburban schools that offer much higher salaries and

better benefits (Collins, 1999; McClure et al., 2003; Schwartzbeck, 2003). Indeed, beginning rural teachers are paid up to 13.3% less than beginning teachers in urban and suburban areas (Schwartzbeck). The Rural Teacher Retention Act of 2007 stated that rural teacher salaries were approximately 14% below salaries paid in nonrural regions. According to research conducted by Beeson and Strange (2003), 43 states had lower average salaries for rural teachers than for urban and suburban teachers.

In addition, rural schools often cannot compete with salaries offered by the private sector for employment in areas other than teaching. Studies have shown that higher salaries for teachers in general do contribute to higher retention rates (Guarino et al., 2006) and, specifically, higher salaries in rural areas contribute to increased retention (McClure et al., 2003). A report by Voke (2002) suggested that one way to combat the salary issue is to increase pay for teachers willing to teach in high-need subjects and hard-to-staff areas. It was also suggested that highlighting the benefits of rural living and making improvements in the other factors that affect rural retention such as working conditions could offset the differences in salary (Schwartzbeck, Prince, Redfield, Morris, & Hammer, 2003; Voke).

Difficult working conditions. Difficult working conditions were also named as a major challenge in rural teacher retention. As stated earlier, rural teachers are often expected to accomplish a wide range of duties including teaching multiple subjects, teaching multiple grade levels, and taking leadership roles in extracurricular activities. These multiple roles require extraordinary amounts of time and energy. Beginning teachers are often unprepared for these duties, and experienced teachers simply "burn

out" from the stress of these multiple job requirements (Hammer et al., 2005; Luekens, Lyter, Fox, & Chandler, 2004).

Other factors that negatively influence working conditions and contribute to the low retention rates of rural teachers are the lack of autonomy, restriction of the teachers' authority to make decisions, and the lack of community and administrative support in the classroom (Guarino et al., 2006; Hammer et al., 2005; Ingersoll, 2001; McClure et al., 2003; Schwartzbeck, 2003). Experienced rural teachers indicated that the value placed on their work by the community positively contributed to their decisions to remain in rural teaching positions (Boylan & Bandy, 1994); however, local conditions in many rural communities create situations in which teachers and education are not highly valued (Education Alliance, 2004; Gibbs, 2000; Voke, 2002). Also, buildings and furniture in poor physical condition combined with a lack of classroom resources and supplies in rural schools decrease satisfaction with working conditions (Education Alliance; Gibbs; Voke).

NCLB requirements. The requirements for highly qualified teachers as dictated by the No Child Left Behind Act of 2001 also have been identified as factors in low retention rates of rural teachers. Rural schools are typically small in terms of student enrollment; because of limited funding available for education in rural areas, teachers generally teach more than one subject, and often the extra subjects are out-of-field subjects for the teacher (Education Alliance, 2004; Gibbs, 2000; Ingersoll, 2002; NCES, 2003a; Jennings & Rentner, 2006; Jimerson, 2005; Sunderman, Tracey, Kim, & Orfield, 2004). These characteristics of rural schools make it difficult for teachers in rural schools

to meet the certification requirements of NCLB as they may not be fully certified in every subject area (Schwartzbeck, 2003). A study by Ingersoll, based on three cycles of Schools and Staffing Survey data, found that in rural schools the following percentages of teachers did not hold majors or minors in their teaching assignment areas: elementary, 8.3%; English, 21.3%; math, 30.2%; and science, 19.5%.

According to a national survey of rural school superintendents, 57% of teachers in school districts with enrollments of 250 or fewer students teach multiple subjects. The same survey showed that in school districts with 251-600 students, 41% of teachers teach multiple subjects and in school districts with 601-1500 students, 28% of the teachers are responsible for more than one subject. Although the percentages of teachers with multiple subjects varied inversely with district enrollment, large districts still showed some of their teachers engaged in multiple subject instruction (Schwartzbeck & Prince, 2003).

Rural teachers are discouraged by the need for certification in each subject taught. Having to take multiple tests of competency combined with little or no access to educational opportunities may influence rural teachers' decisions to leave their schools. Superintendents in rural schools of fewer than 250 students expected to lose up to 9.3% of their teachers (Hammer et al., 2005; McClure et al., 2003; Schwartzbeck et al., 2003; Reeves, 2003) due to their lack of certification in every subject they were expected to teach. For example, a superintendent surveyed by Schwartzbeck and Prince commented that many of his teachers who taught multiple subjects knew the content well and were great teachers but they could not "jump through the hoops" of NCLB requirements. In

addition, there is some question as to whether or not teachers with K-8 certification are highly qualified according to NCLB standards (Hammer et al.; Schwartzbeck et al.). Education Alliance (2004) reported that because of the necessity of multiple teaching assignments in some rural schools, the U.S. Department of Education was investigating the impact of the highly qualified requirement on rural schools.

Isolation. Low salary, difficult working conditions, and NCLB requirements all have an impact on the retention of rural teachers; however, the greatest challenge to rural teacher retention is isolation. For rural schools, the problem may not be that qualified teachers are not available but that they do not accept employment or do not stay because of the geographic and social isolation associated with rural areas (Collins, 1999; Education Alliance, 2004; Hammer et al., 2005; Kannapel & DeYoung, 1999).

Rural schools are deeply rooted in the community and are strongly influenced by the social and economic aspects of the area; however, teachers not from the community may not understand the culture of their students and parents (Kannapel & DeYoung, 1999; Seal & Harmon, 1995). Many teachers who move into rural areas to teach feel that they do not fit into the community; they are socially isolated from the community in which they teach (Collins, 1999; Hammer et al., 2005; Kannapel & DeYoung; Schwartzbeck et al., 2003). Appleton (1998) wrote,

> Those who identify in some way with the local community, perhaps because it is their home town, or because they marry into the community, tend to stay and see benefits in living there. Those who do not identify with the local community see rural placement as isolating. (p. 3)

In addition, the geographic isolation of rural areas also contributes to the social isolation rural teachers may feel as they are located away from family and often from metropolitan areas offering entertainment and shopping (Hammer et al., 2005; McClure et al., 2003). Geographic isolation was also identified as a reason that schools within a rural district may have trouble retaining teachers.

In the spring of 2003, the American Association of School Administrators along with Appalachia Educational Laboratory, now called Edvantia, obtained e-mail addresses for 3,078 rural superintendents across the United States. An on-line survey was conducted by sending an e-mail with a hyperlink to the survey. Paper surveys were mailed to superintendents in Kentucky, Tennessee, Virginia, and West Virginia for whom no e-mail address was available. The total number surveyed was 3,327. There was a response rate of 27%, consisting of 896 responses, with 48 of the 50 states represented. Data collected from this national survey concerning rural retention rates shows that geographic isolation was cited by 38% of rural superintendents as a reason for poor rural retention rates, with social isolation reported as a factor by 42% of the superintendents (Schwartzbeck & Prince, 2003).

The social isolation perceived by some teachers moving into rural areas is a serious problem in that social support is vital to an individual's ability to respond appropriately to the surrounding environment (Lemke et al., 1992). Teachers from urban Gesellschaft communities expect many varied social contacts with less personal involvement whereas the rural Gemeinschaft communities offer fewer but more personal contacts (Lemke et al.). Isolation, whether geographic, professional, social, or a

combination, has been identified as a major factor in low rural teacher retention rates and must be addressed. Although there are several possible ways to reduce the negative effects of isolation, perhaps the best solution may be to better match teachers to the areas in which they will teach. Recruiting teachers already familiar with and appreciative of the Gemeinschaft qualities of rural life may be an answer to increasing rural teacher retention (Collins, 1999; Schwartzbeck & Prince, 2003).

Strategies for Improving Retention of Rural Teachers

Several factors contributing to low retention rates for rural teachers have been identified; similarly, research has identified and categorized strategies for improving rural teacher retention rates. The strategies identified as enhancing the attractiveness of rural teaching are as follows: incentives for remaining in rural schools, improved recruitment and hiring practices, school-level support for teachers, use of interactive technologies, and grow-your-own programs (Collins, 1999; Hammer et al., 2005; Jimerson, 2003; Kannapel & DeYoung, 1999; McClure et al., 2003; NCES, 2003a; Schwartzbeck & Prince, 2003; AEL, 2004; Harmon, 2001).

Offering incentives to rural teachers is one strategy to keep them in rural schools. Making salaries competitive and offering different forms of assistance may prevent rural teachers from moving to higher paying urban and suburban areas as well as to employment in other professions (NCES, 2003a). Providing federal funds to be distributed by state policy has been suggested as a way to make rural salaries competitive (Jimerson, 2003; McClure et al., 2003). A national survey analyzed data from 896 rural superintendents (Schwartzbeck & Prince, 2003) and revealed that some rural areas were

putting retention incentives in place, although 42% of the respondents reported that no incentives were available to teachers in their districts. Of those districts reporting the use of incentives to retain teachers, 26% offered tuition assistance, 14% offered bonuses for National Board Certification, 6% offered higher salaries for specific subject areas, 5% offered student loan forgiveness, 3% offered housing assistance, 3% offered bonuses for specific subject areas, and 11% offered other forms of incentives (Schwartzbeck et al).

School-level support was another of the key factors identified to improve rural teacher retention rates. New rural teachers should be provided with the opportunity to work with experienced teachers to "learn the ropes." Induction and mentoring programs can significantly improve new teachers' experiences, thereby creating greater job satisfaction and increasing retention (Collins, 1999; McClure et al., 2003; Silverman, 2006). Indeed, one study showed that induction programs reduced attrition rates by two thirds for 1st- and 2nd-year teachers and improved retention rates in rural schools (Clewell & Villegas, 2001b). Unfortunately, a national survey of 3,327 rural superintendents resulting in 896 responses revealed that only 34% of those surveyed offered formal induction or mentoring programs for new teachers (Schwartzbeck et al., 2003). There are data to support the use of formal induction or mentoring programs as a means of increasing teacher retention, but only 22 states have required and funded mentoring programs (NCTAF, 2003).

Induction and mentoring programs positively affect the numbers of qualified, competent teachers. These programs also create the community connections that play a substantial role in increasing rural teacher retention (McClure et al., 2003). Increasing

the availability of induction or mentoring programs will positively affect rural teacher retention rates.

In addition to induction or mentoring, other school-level supports have been suggested as a means of increasing retention. Reduced teaching loads, planning time with experienced teachers, and opportunities to observe experienced teachers have showed promise. Positive formal and informal interaction with principals, other teachers, and the community also increases retention in rural schools (Collins, 1999; Silverman, 2006). According to Collins, "retention requires a coordinated school-community effort. A school-community orientation can help new rural teachers overcome feelings of isolation, acquire a sense of community security, and develop professional competence" (p. 2). Similarly, Boylan and Bandy (1994) asserted that teachers who remained employed in rural schools were "joiners who belonged to clubs and other interest groups and thus became actively involved in the life of the community" (p. 154).

Technological advancements have provided another means of increasing rural teacher retention rates. Research data support the use of interactive technologies for networking rural districts, thereby negating some of the professional isolation of rural teachers. The internet can be utilized for professional development and on-line learning opportunities to meet NCLB requirements for highly qualified teachers (Hammer et al., 2005). One example of the use of this technology for professional development is the Center for Online Professional Development established by the Montana Education Development Center to support teacher-created online workshops. Another example is

California's New Teacher Center in Santa Cruz that provides e-mentoring networks for science teachers and administrators (Hammer et al.).

The internet also can be used as a recruiting tool. Rural schools can establish Web sites devoted to their unique characteristics, their specific needs, and the advantages of employment in their schools. For example, one California school district, New Haven, uses its Web site to provide information about the school system and to recruit new teachers (Hammer et al., 2005). Internet technology can provide an immediate line of communication between teachers, school administrators, parents, and outside sources of educational services and support (McClure et al., 2003; Schwartzbeck & Prince, 2003).

Improved recruitment and hiring practices also have been suggested as methods to improve retention. Geographic and social isolation, as well as difficult working conditions, were mentioned previously as major factors affecting rural teacher retention. Taking into consideration the effects of isolation in rural areas, recruitment based on Tönnies's Gemeinschaft and Durkheim's mechanical solidarity should be considered when choosing teachers for rural schools. School administrators should select teacher applicants who understand and are comfortable with the rural way of life and the workings of rural schools (Appleton, 1998; Boylan & Bandy, 2000). Candidates with rural backgrounds should be targeted by administrators for rural schools, particularly for schools that are racially or culturally distinct (Collins, 1999). Rural schools need to target candidates who understand rural life and who are prepared to accept the idiosyncrasies of rural areas and schools (Collins; Schwartzbeck & Prince, 2003; Voke, 2002).

To make the hiring process simpler, the inclusion of principals and teachers who understand the specific needs and characteristics of a school in the applicant interview process would provide a better idea of fit for the applicant and the school (Collins, 1999; Hammer et al., 2005; Ingersoll, 2001; McClure et al., 2003; NCTAF, 2003; Schwartzbeck & Prince, 2003). Also, developing reciprocal applications for states, meaning that teachers licensed in one state would be eligible to teach in other states, would simplify the recruitment and hiring process (Collins; Hammer et al.; Ingersoll; McClure et al.; NCTAF; Schwartzbeck & Prince).

Grow-Your-Own Programs

Teachers trained in traditional university teacher preparation programs, who teach in rural schools, likely teach according to the principles of Gesellschaft and organic solidarity while their students and parents live the ideals of Gemeinschaft and mechanical solidarity. For example, teachers from outside the rural area often believe they must prepare students to participate in the larger society and economy, with academics as the main focus. Their students, to the contrary, may not place the same values on education and global society. These teachers simply do not understand and sometimes look down on rural youth and their parents who do not aspire to leave the community (Kannapel & DeYoung, 1999). The students, parents, and teacher do not have a common goal. Indeed, they may have no understanding of each other's goals, thus creating frustration for everyone involved as well as job frustration, thereby leading to lower retention rates for the teachers (Kannapel & DeYoung).

To the contrary, a teacher raised in a rural area may not encounter the same difficulties when entering a rural school district. A feeling of cohesion and community among students, parents, and teachers based on their similar backgrounds creates a comfortable environment for meaningful learning to take place (Ingersoll, 2001).

Although various aspects of rural areas do differ from place to place, Gemeinschaft and mechanical solidarity qualities are inherent in each rural community. A teacher from a rural area will understand the values and needs of rural students and parents and will be familiar with the idiosyncrasies of rural schools. Rural teachers from rural areas will be able to teach students the skills and information to do well outside rural areas without downplaying the importance of their own communities (DeYoung & Lawrence, 1995; Kannapel & DeYoung, 1999). In addition, the "attachment to place" common to those raised in rural areas will encourage teachers recruited from the locality to provide the best possible educational experiences for their students in the interest of the common good of the community (Howley & Howley, 2004).

Grow-your-own teachers, in this case, rural teachers recruited from the local area, will be well prepared for and suited to rural education because of their Gemeinschaft or rural upbringing. Their attachment to place and appreciation of ruralness may increase retention. Teachers from rural areas tend to stay in rural areas; therefore, districts should focus on hiring those individuals as well as encouraging their own staff and volunteers to become licensed teachers (Clewell & Villegas, 2001a ; Collins, 1999; Lemke, 1994). Indeed, "knowing that teachers with rural ties are more likely to come to rural

communities and stay, rural districts should concentrate on attracting teachers with rural backgrounds" (Muse & Thomas, not in ref 1992, p. 59).

The intent of grow-your-own strategies in rural areas is to increase the rates of rural teacher retention by recruiting qualified members of the local community to teach in the local schools. The appeal and, perhaps, the future success of these grow-your-own programs stem from the Gemeinschaft nature of the rural community. The sense of belonging and working for the good of the community that rural community members experience can produce rural teachers dedicated to their schools and the students enrolled in them (Clewell & Villegas, 2001; Collins, 1999; Lemke, 1994). The grow-your-own strategy has been identified as very promising in raising the rural teacher retention rate (Hammer et al., 2005).

There are various programs available in different states across the United States. For example, 34% of participants in a national survey, with 896 rural superintendents responding, reported using grow-your-own strategies for their own districts (Schwartzbeck & Prince, 2003). These grow-your-own programs all have a common premise: Encourage capable local people to enter the teaching profession (Collins, 1999; Howley & Howley, 2004; Yeager, Marshall, & Madsen, 2003).

Rural communities produce people who understand and value ruralness. This appreciation of the rural way of life can produce teachers dedicated to enriching the lives of the young people in their community. Such dedication greatly enhances retention rates. Boylan and Bandy (1994) reported that approximately twice as many beginning teachers who were of rural origins were satisfied with their rural teaching positions

compared to those raised in urban settings. Similarly, the majority of the rural teachers who chose to stay in a rural school indicated that they were "locals" and were accepted as such by the community (Boylan & Bandy).

The grow-your-own effort to ensure that there are enough high-quality teachers for rural areas has included several innovative practices. Although these practices are not rural specific, they are being utilized in rural areas as a means of improving rural teacher retention rates. These practices, used in rural areas, should be focused on developing teachers who are endorsed in multiple subjects, who know how to use community resources, and who are comfortable in small, rural, community-oriented schools (Tompkins, not in ref 2003).

One of these innovative practices is providing access to teacher preparation programs and creating collaboration among schools, community colleges, and traditional teacher preparation programs. Providing information about and access to educational opportunities beyond a high school diploma is important in rural areas. According to Whitener and McGranahan not in ref (2003), in 2000, rural adults 25 and older had completed college at a rate of only 17%; this is less than half the percentage of urban areas. Providing access to college may improve this rate for rural people. Specific to teacher preparation, access to college may encourage members of the rural community to consider teaching and will provide them with a means to become qualified to do so (Clewell & Villegas, 2001b; Hammer et al., 2005; McClure et al., 2003).

Career switching and alternate licensure programs offer second career opportunities in teaching to qualified rural residents (Clewell & Villegas, 2001b;

Hammer et al., 2005). A traditional teacher education program may not be a viable option for someone with family and employment obligations. Offering an alternate route to certification allows nontraditional teacher candidates to enter the teaching profession. Nontraditional teacher candidates must meet the same standards and pass the same assessments as their traditionally prepared counterparts (Berry, not in ref 2000). These programs create competent qualified teachers but do so in ways that are accommodating to nontraditional students.

Recruiting rural middle and high school students with an interest in teaching into specialized programs has also shown promise (Collins, 1999; McClure et al., 2003). One example is the South Carolina Center for Teacher Recruitment, now called the Center for Educator Recruitment, Retention, and Advancement (CERRA). The center supports the Teacher Cadet Program and the Teaching Assistant Program. These programs introduce high school seniors to the teaching profession and provide practical experience to encourage an interest in teaching as a career (Collins).

Providing professional development and distance learning opportunities encourages school paraprofessionals to become fully certified and also may influence certified teachers to add endorsements in high-need subjects. "Retention rates are especially high for paraprofessionals who already have experience in local schools" (Hammer et al., 2005. p. 13). These educational opportunities are an advantage for rural schools as they provide a means for schools to keep experienced people and allow already certified teachers to meet NCLB requirements by becoming endorsed in every subject they teach (Clewell & Villegas, 2001b; Hammer et al., 2005; McClure et al.,

2003). More research is needed to provide data on the effectiveness of the programs (Hammer et al.).

One example of a grow-your-own program was the *Reader's Digest* Fund Pathways to Teaching Careers Program. Although it was not limited to rural areas, the Pathways to Teaching Careers Program was designed to recruit and increase retention of teachers in rural and urban areas. The program was composed of four strands that targeted and recruited teachers from undergraduate programs and from nontraditional sources such as precollege students, paraprofessionals, uncertified teachers, and returning Peace Corps volunteers. The program was based on successful partnerships with colleges or universities; the program selected participants who were likely to succeed, developed an appropriate curriculum to prepare participants, and provided continuing support for participants (Clewell & Villegas, 2001b).

Over the course of 6 years, beginning in 1994, an analysis of the Pathways program by Clewell and Villegas (2001b) revealed that the program exceeded its recruitment goal and enrolled 2,593 participants. Of the participants in the program, 75% completed the requirements for certification, compared to 60% of those in traditional programs. A large majority (84%) of the Pathways graduates were employed by their targeted school districts. Pathways graduates received high evaluations from their supervisors, and 81% remained in teaching at least 3 years after graduation, compared to the national average of 71%. The retention rate for 3 or more years was 75% (Clewell & Villegas). Data from analysis of the Pathways program provided a basis for development of similar programs to recruit and retain teachers in rural settings.

The South Carolina Center for Educator Recruitment, Retention, and Advancement (CERRA), formerly called the South Carolina Center for Teacher Recruitment, is another example of grow-your-own programming to recruit rural community members into teaching and to improve rural teacher retention. For example, the Diverse Pathways offers a way to transition from 2-year college programs to 4-year college teaching licensure. In addition, the possibility of a teaching career is broached with middle school students using the ProTeam Program. College credit is offered for the Teaching Cadet Program, a class that introduces high school seniors to teaching whereas the Teaching Assistant Program pairs Cadet program students with a teacher in hard-to-staff subjects. The Teacher Job Bank and Teacher EXPO provide access to job opportunities to interested locals, and there are financial assistance programs available to community members interested in teaching in rural schools and especially for those interested in hard-to-fill subject areas and for minority students (CERRA, 2010). Another example is the Future Teachers of America Clubs sponsored by the National Education Association. These clubs are designed to encourage middle and high school students to consider a career in teaching.

The implementation of new programs to recruit candidates into the teaching profession and to keep them there is evidence that the need to expand recruitment and retention efforts is being taken seriously (Education Alliance, 2004; Hammer et al., 2005). These programs, including recruiting for rural positions in rural communities and grow-your-own programs, have been suggested as possible methods to increase rural teacher retention rates (Collins, 1999; Education Alliance, 2004; Voke, 2002).

Nevertheless, more research on rural education issues and the effectiveness of these programs is vital to the creation of sound rural educational policies and practices.

Teacher Recruitment and Retention Programs in Virginia

Low teacher retention rates reduce the overall effectiveness of schools. Students are instructed by less experienced teachers, teachers may be placed in out-of-field teaching assignments, and school reforms are more difficult to implement when there is a constant influx of new teachers who must be convinced the reforms are necessary and instructed in the methods of change (Voke, 2002). In addition, the actual financial cost of replacing teachers can be significant. A report by the Alliance for Excellent Education (2005) based on SASS 1999-2000 data, revealed that of Virginia's 80,987 teachers, 5,337 chose to leave teaching, at a cost of $62,031,275, whereas 7,319 transferred to another school at a cost of $85,074,850.00 annually (U.S. Department of Labor estimates using 30% salary). An earlier report by the National Association of State Boards of Education concurred with these findings by stating that tremendous resources go into recruiting and training teachers who will probably leave after a few years, creating a cycle of recruiting and training that wastes valuable resources.

In September 2002, the State of Virginia received a $13.5 million federal Teacher Quality Enhancement grant to improve the recruitment and retention of high-quality teachers for Virginia public schools. According to the Virginia Department of Education, Innovative Teacher Recruitment Grants were provided to 22 school divisions to expand the Future Educators Organization in high schools, to expand the Teacher Cadet program, to develop a Web site for vacancy postings and on-line applications, to recruit teachers

for hard-to-fill subjects, to provide support for Praxis, and to provide mentors for new teachers (VDOE, 2006).

Virginia also has established partnerships between community colleges and 4-year colleges and universities to allow those interested in teaching careers to utilize both avenues of teacher training. For example, a partnership among a rural school district in Virginia, Wytheville Community College, and Radford University formed the Appalachian Model Teaching Consortium that created a pathway for high school students interested in teaching. These students begin taking courses in high school for college credit, attend community college for 2 years, complete their student teaching program at the county school, and finish their undergraduate degree at the university. The program is supported by a scholarship, and the new teachers are expected to return to the county school to teach for at least 3 years (Hammer et al., 2005).

Another example is the Community College Collaborative. This initiative allows graduates of specific community colleges with specific education coursework and successful completion of the Praxis I to transfer seamlessly to a 4-year college or university (VDOE, 2006).

The Teach in Virginia program was designed to identify and enable career switchers to pursue a teaching career in hard-to-fill subject areas and hard-to-staff schools. The goal was to recruit high-quality candidates for rural and urban districts. Applicants were required to have a Bachelor's degree, a 2.75+ GPA, and a degree in a hard-to-fill subject. T his program was in place from 2003 to 2006.

Virginia also developed the Teachers for Tomorrow, a year-long high school course for students interested in teaching in 2003. The program began in five schools, and by 2005-2006, a total of 63 schools and 900 students from all eight Superintendents' Regions were involved. The Teachers for Tomorrow program, based on the South Carolina Center for Educator Recruitment, Retention, and Advancement's Teacher Cadet Program is intended to interest high school juniors and seniors in a teaching career. Its goal is to support Virginia's recruiting efforts through developing a grow-your-own program to identify students interested in teaching and to provide them with the training and support they need to enter the teaching profession (VDOE, 2006).

Both of these programs recognized that teacher candidates from a specific community are likely to want to remain in that community (VDOE, 2006; Hammer et al., 2005). Hence, potential teachers from rural areas will be rooted in or want to remain in those rural areas. These programs, intended to develop and employ, or to grow their own, rural teacher candidates with rural roots may be a way to increase rural teacher retention. In addition to the division grants and partnerships between community colleges and 4-year institutions, the State of Virginia created a statewide on-line job posting site and organized the Great Virginia Teach-In to provide information on teacher employment issues statewide.

Although Virginia has implemented these programs, more research is necessary before the effectiveness of these programs can be determined. In addition, data that could aid in the recruitment and retention of rural teachers may come from research into the characteristics of the teachers who choose to stay in rural schools.

Summary

The large, comprehensive schools created by the educational reforms of the 19th and 20th centuries in rural communities often employ teachers who are not connected to the locality or to other rural areas (Boylan & Bandy, 1994; Kannapel & DeYoung, 1999). Their teacher preparation programs have not prepared the teachers to understand the nature of the rural locality and its educational needs (Kannapel & DeYoung). There is a mismatch between these outside teachers and the communities in which they are employed, which leads to low retention rates (Appleton, 1998; Boylan & Bandy; Kannapel & DeYoung).

Nevertheless, the Gemeinschaft, or rural sense of being an integral part of the community and of working for the common good, which is evident in rural communities and the people who live in them, may be the answer to rural teacher retention. It was hypothesized that, if schools recruit potential educators from their own communities, the uniqueness of the rural communities may hold the solution to the problem of low retention.

Research specific to rural Virginia teachers was needed to determine what matters most to them and why they choose to leave or stay with rural schools in Virginia. It was believed that research also could determine if being of rural, Gemeinschaft origin factors into the choice to teach in rural schools. Although national surveys such as the NCES Schools and Staffing Survey exist, other states with large rural populations have conducted their own surveys to better understand their own rural education issues.

Salary, NCLB requirements, working conditions, and isolation have been identified as reasons for low rural teacher retention rates. Isolation has been identified as the major reason that teachers leave rural schools. There are data that suggest the perspectives of rural and nonrural people differ in terms of their perception and response to isolation (Lemke1994). In light of this evidence, there was a need for specific research to determine if a teacher's rural or nonrural background affects his or her decision to stay in rural schools. Specifically, Virginia has implemented programs to increase retention in rural districts, yet there was a need for more data to determine if the rural or nonrural background of teachers employed in Virginia's rural schools plays a role in rural teachers' decisions to leave or stay. The data from this research contribute to the answer.

Chapter 3: Methodology

Purpose

As discussed earlier, no single factor is more important for student achievement than providing a quality teacher for each classroom. That quality comes, in part, from experience (Ingersoll, 2001; NCTAF, 2003; Prince, 2002). The low retention rate for rural teachers contributes to rural school districts' struggles to meet the need for quality teaching. The revolving door created by low retention rates in rural schools has a negative effect on these schools as vacancies are filled with less experienced teachers (NCTAF). Because experienced teachers play such an important role in student success or failure, an area of particular concern in the nation's efforts to improve overall student achievement is the low retention rate for teachers in rural districts across the nation (Hammer et al., 2005; McClure et al., 2003; Prince; Schwartzbeck, 2003).

Understanding ruralness is an important factor in retaining teachers in rural schools (Collins, 1999). Lower than average salary, difficult working conditions, NCLB requirements, and isolation have been identified as reasons that teachers leave rural schools. Feeling a sense of belonging to the rural community is important in negating the sense of isolation, as well as positively influencing perceptions of the other areas of concern. Tönnies's Gemeinschaft and Durkheim's mechanical solidarity (Ward & Stone, 1996) assert that ruralness is a way of life based on kinship, tradition, and the good of the community. Rural people interact in ways that include and benefit all members of the community so that individual gain is not as important as the individual's contribution to the community. People from rural areas are accustomed to the rural way of life, which is

very different from the nonrural lifestyle. They accept the limitations of rural areas as a part of rural life.

Based on the idea of rural community defined by Tönnies's Gemeinschaft and Durkheim's mechanical solidarity (Ward & Stone, 1996), it was hypothesized that rural teachers have a more positive perception of the factors affecting teacher retention in rural areas. It was also hypothesized that recruiting teachers from rural areas for rural schools would improve retention rates in rural schools.

Several states, including Virginia, have already created programs to produce rural teachers for rural areas based on this proposed solution. Many of these programs are relatively new and, therefore, more data are needed to determine their effectiveness. It was the intent of this research to determine if there is a relationship between Gemeinschaft or Gesellschaft origin and rural school teachers' intentions to remain in rural schools and to determine if teachers' origins and perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction affect their decisions to stay in rural schools.

Through the use of a survey instrument to collect data from rural teachers, this study sought to answer the following questions:

1. What is the effect of origin on teachers' tenures or decisions to stay in a rural school?
2. To what extent do teachers' origins and perceptions of several factors (working conditions; salary; geographic, social, and professional isolation;

effects of NCLB requirements; and job satisfaction) predict whether teachers plan to stay in rural schools?

The results of this study are intended to help provide direction for the development of programs to retain rural teachers. Significant differences between the teachers in rural districts who consider themselves rural and those who consider themselves nonrural may provide an answer to the question of whether or not recruiting rural candidates for rural districts will improve teacher retention in rural districts. Table 1 provides a visual representation of the questions and variables.

Table 1. *Research Questions and Variables*

Question	Independent variable	Dependent variable
What is the effect of origin on teachers' tenures or decisions to stay in rural schools?	Origin (rural or nonrural)	Plans to remain in a rural school
To what extent do teachers' origins and perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction predict whether teachers stay in rural schools?	Origin Working conditions Salary Isolation NCLB Job satisfaction	Plans to remain in a rural school

Design

A nonexperimental, quantitative design was used to conduct this research. A self-administered Web-based survey was used to collect data for analysis. Inquisite (VCU) programming, available through Virginia Commonwealth University, was employed to implement the survey and to collect the data. The survey instrument was placed on-line and was made available to the participants through an e-mailed cover letter containing a URL link to the survey. E-mail addresses were obtained from the superintendents of selected school districts. The use of Inquisite is discussed more fully in the instrumentation and procedures sections that follow.

Population

The participants of this study were teachers currently employed as full-time K-12 classroom teachers in selected rural schools in Virginia. The schools were identified using the Common Core of Data (CCD). The CCD, one of the U.S. Department of Education NCES programs, collects information on public schools in the United States on an annual basis and makes this information available to the public (NCES, 2009). CCD data can be accessed on the Internet at the NCES Web site included in the reference section.

Because the target population for this research included approximately 30,500 rural Virginia teachers, surveying each rural teacher was not practical. Instead, cluster sampling was employed to obtain a sample of rural teachers to participate in this research. Cluster sampling is often chosen when participants are geographically isolated into groups. Cluster sampling utilizes the random

selection of naturally occurring groups (McMillan, 2004). Virginia schools are geographically grouped into eight Superintendents' Regions. Rural teachers are grouped into rural districts distributed throughout Virginia's eight Superintendents' regions. The use of cluster sampling in this research allowed the researcher to select teachers in rural districts.

Using a random numbers chart, 20% of the rural school districts were selected for participation by choosing two rural districts from each one of Virginia's eight Superintendents' Regions. Two rural districts from each of the eight regions were selected to ensure that each region of the State of Virginia was included. At least one district in each region agreed to participate. A sample of 3,121 rural Virginia teachers resulted from the selection process. More discussion on the sample size follows in the procedures section.

It should be noted that all K-12 teachers in Virginia public schools are required by the Code of Virginia, 8 VAC 20-25-10; 20-25-20; 20-25-30, to successfully meet technology standards for instructional personnel. Specifically, Virginia Code 8VAC 20-25-30 D requires that all instructional personnel be able to use electronic technologies to access and exchange information. Therefore, all public K-12 teachers in Virginia should have had the technological knowledge to complete the survey, and all Virginia K-12 teachers had access to the Internet provided by their schools (VDOE, 1998).

Instrumentation

For the purposes of this research, the rural or nonrural origin of the teachers and their perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction were identified as independent variables. Plans to remain in a rural school were identified as the dependent variable. Data collected were analyzed to determine if there was a relationship between Gemeinschaft or Gesellschaft origin and rural school teachers' intentions to remain in rural schools and to determine if teachers' origins and perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction affected their decisions to stay in rural schools.

As discussed earlier, a five-point Likert scale was used and a summated score was calculated for each of the categories surveyed. A higher score indicated a more positive perception. Working conditions, for the purposes of this research, included class size, teacher participation in administrative decisions, access to educational resources, school environment, and community involvement. Isolation refers to remote or difficult-to-access geographic regions, distance from social or family situations, and difficulty in connecting with other professionals. NCLB requirements such as endorsement in each content area or subject taught were considered in this research as rural teachers often are required to teach multiple subjects.

The survey questions employed to address the research questions were chosen based on the literature reviewed for this research. Survey questions concerning working conditions, salary, job satisfaction, and demographics were

adopted, with permission from the author, from the North Carolina Working Conditions 2005-2006 survey and were originally found on the Schools and Staffing Survey (SASS) for the 2003-2004 school year (NCES, 2004b).

The SASS 2003-2004 survey was authorized by the U.S. Department of Education through NCES and was conducted by the United States Department of Commerce, Economics, and Statistics Administration through the United States Census Bureau. Evidence supporting the validity and reliability of the SASS survey was addressed by these agencies during the preparation and administration of this national survey of teachers according to the Statistical Standards Program implemented by NCES (2002). The SASS 2003-2004 survey was endorsed by the American Federation of Teachers, the National Association of Elementary School Principals, the National Association of Secondary School Principals, the National Education Association, and the National Middle School Association.

The content validity of the North Carolina Teacher Working Conditions survey has also been addressed. The original 2002 North Carolina survey was based on a literature review by the North Carolina Professional Teaching Standards Commission related to analysis of the NCES SASS survey concerning the importance of working conditions on teacher retention. The 2004 survey was designed using a five-point Likert scale and was implemented on-line. The importance and relevance of the 2004 survey questions were ranked by selected educators, and a factor analysis of the questions identified as most important was conducted. It was determined that the identified questions also had the highest

factor loads. These questions were used as the core of the 2006 and 2008 surveys. In addition, feedback from educators across the United States was included in an effort to improve the survey instrument (University of California, 2008).

Predictive validity of the 2006 North Carolina Working Conditions survey was addressed through an analysis by Hirsh and Emerick. It was determined that there is a connection between teacher retention and positive working conditions. Identified conditions included professional respect for teachers, teacher empowerment, necessary resources, a safe and supportive school, and adequate planning time (University of California, 2008).

A factor analysis was completed, using SPSS, to establish the construct validity of the survey instrument for this research. Eigenvalues were not used. Instead, because the survey was developed based on the research for this study, four factors, one for each of the identified retention factors, were forced. Varimax rotation was used as the factors were independent of each other, not correlated. The four factors explained 42% of the variance.

Survey questions for the retention factors identified in the literature review did load into separate factors with a few exceptions. Questions 1 through 34 on working conditions all loaded on the same factor. NCLB Questions 35 and 38 loaded on the same factor. Although Question 36, "My school has sufficient resources to meet NCLB AYP goals," loaded with the working conditions, it was retained as the resources indicated are specifically related to NCLB. Question 37

concerning teaching placement was removed because it did not load with the other questions in the same category.

Salary Questions 39, 40, and 42 loaded on the same factor. Although Question 41, "Teachers are given sufficient personal leave and sick leave time," and Question 43, "My salary adequately compensates for the costs associated with traveling," both loaded with working conditions, they were retained as they are both directly concerned with teachers' monetary compensation.

Questions 44 through 59 were concerned with isolation. They loaded on the same factor with five exceptions. Questions 45, 49, 50, and 51 all dealt with access to resources based on the isolation of the school from those resources; therefore, they were retained. Question 58 did not load with the other questions in its category. It was determined that it was more a measure of community perspective; therefore, it was removed.

A reliability analysis of the survey instrument was conducted for each of the factors and also for the questions combined. Table 2 shows the calculated internal consistency statistics.

Table 2. *Internal Consistency Statistics*

Question set	Cronbach's alpha
Working conditions	.929
NCLB requirements	.739
Salary	.808
Isolation	.900
Overall	.938

The calculated internal consistency statistics for Working Conditions Questions 1 through 34, Salary Questions 39 through 43, Isolation Questions 44 through 57 plus 59, and the overall statistic were all above the desired .800 level. Although the statistic for NCLB Questions 35, 36, and 38 was under the desired .800, it is still acceptable since the lower limit is .700. The lower statistic may be due to the small number of questions in the set.

A pilot of the instrument prepared for this research was administered to determine if the survey instrument was understandable and to determine the average time needed to complete the survey. The pilot was conducted using a convenience sample of 14 teachers from a school that was not chosen to participate in the actual survey. Participants unanimously reported that the directions were clearly stated and the questions were understandable. The times required to complete the survey ranged from 10 to 15 minutes.

The survey was implemented on-line through the use of Inquisite programming available through Virginia Commonwealth University. Inquisite is an automated survey software system that provides nontechnical users with an opportunity to create and manage on-line surveys. Researchers using Inquisite first build their survey using Inquisite Builder. The survey instrument is then published to the Inquisite Web server. The survey instrument is embedded in a link that is made available to the participants through an e-mailed cover letter (See Appendix C) sent by the Inquisite program. The Inquisite software

proscribes modification of the survey instrument while data are being collected from respondents.

The researcher is also able to restrict access to the survey to only those specifically invited to respond and can limit each participant to one response. Responses are collected by the Inquisite program and can be analyzed using the Inquisite program or can be sent to other programs such as SPSS. All responses are confidential as they are collected by the Inquisite program and sent to the researcher without identifiers (Virginia Commonwealth University, n.d. a; Virginia Commonwealth University, n.d. b).

There are several advantages to the use of the Internet as opposed to traditional paper survey instruments for collecting data. Specific advantages include the following: research costs are lower; they have shorter turnaround times; they are easily sent to remote geographic regions; they can reach difficult to access groups concerning sensitive topics; they can efficiently reach large numbers of potential participants; they may increase participation by providing an interactive process; and they may reduce transcription and coding errors (Zhang, 2000). Web-based surveys are increasingly being implemented by researchers in all disciplines, including educational and social science research (Dillman & Bowker, 2000; Dillman, Tortora, & Bowker, 1999; Solomon, 2001; Zhang).

There are disadvantages associated with the use of any sample survey. Some of these disadvantages have been summarized into four categories: coverage error, sampling error, measurement error, and nonresponse error. Each

of these sources of error raises questions regarding Internet surveys that differ from other methods of surveying (Dillman & Bowker, 2000; Dillman et al., 1999; Solomon, 2001; Zhang, 2000).

Sampling error is created whenever a sample is drawn from a population and used to represent the total population. Because not all members of the population are included, the data collected do not constitute a complete measure of all possibilities. To address sampling error in this research, the target population was carefully defined using the NCES database to identify rural Virginia school districts, and a very large sample population was identified through the use of random selection of two rural districts from each of the eight Virginia Superintendents' Regions. Sampling error is reduced as more members of the population are included. The 3,121 rural teachers employed in the 10 districts that granted permission to proceed were contacted and asked to participate. The selection of such a large sample population should reduce sampling error (Mitchell & Jolley, 2004).

Coverage error was also considered in this research. Coverage error can result when all members of a population do not have an equal chance of selection. The sample districts were drawn randomly from rural districts included in each of the state's eight Superintendents' regions. All of the teachers invited to participate in this research were K-12 teachers employed in Virginia rural public schools. Districts were chosen from each of the eight Superintendents' Regions so that participants represented the different geographic areas across the state.

According to the Virginia Department of Education, all public K-12 teachers have Internet access as well as e-mail addresses and e-mail service provided by the school district. All participants from each selected district had equal access to the survey instrument.

According to Dillman and Bowker (2000) and Solomon (2001), response rates can be increased with the use of cover letters and repeated contacts. As suggested by the literature, nonresponse error was addressed in this research through the use of an explanatory cover letter, including a URL link to the survey, which was e-mailed to potential participants. A high response rate was encouraged by the use of an e-mail cover letter and two e-mail reminders sent periodically after the initial contact. The Inquisite software used to implement this survey recorded responses and sent reminders only to the e-mail addresses that did not have a recorded response. The researcher does not know which e-mail addresses responded. This information was monitored by the Inquisite program.

A user-friendly survey created using common technology in a form similar to a traditional pencil-and-paper survey can encourage response as well. A pilot was conducted using the survey instrument to determine the ease of use. Participants reported that the survey directions were understandable and the questions clearly understood.

Variance in the technology of participants' computers can change the appearance of a survey according to the computer in use. This variance can be a

source of random measurement error (Dillman et al., 1999; Virginia Commonwealth University, n.d. b). Designing the survey instrument using a simple format similar to a traditional pencil-and-paper survey should minimize any perceived differences in the survey instrument (Dillman et al.; Virginia Commonwealth University), hence, reducing measurement error.

Procedures

Prior to the distribution of the survey, superintendents of the rural Virginia districts selected through the sampling procedure described above were identified through the Virginia Department of Education and were contacted by formal letter to explain the research and to request permission to survey the district teachers. A copy of this letter is included in Appendix B. The letter explained the nature of the electronic survey and the precautions taken to ensure the confidentiality of respondents. The researcher also contacted the superintendents by telephone to answer any questions they had and to gain verbal permission to conduct the research within the district. Once permission was granted, each superintendent was asked for a list of the e-mail addresses of teachers employed by the district.

All full-time K-12 teachers in the selected rural districts were contacted by e-mail letter (Appendix C) using the Inquisite software system and the e-mail lists supplied by the district superintendents. A link to the survey Web site was included in the e-mail. The e-mail included explanation of the research and its purpose along with assurance that their responses were confidential. The

Inquisite software was programmed to send the contact e-mails at timed intervals to reduce the number of participants trying to access the survey simultaneously.

Participation was voluntary. Responses were returned to the secured Inquisite survey site. The Inquisite program removed an e-mail address from the contact list when a response was submitted. All data were aggregated with no identifiers attached. An e-mail reminder was sent by the Inquisite program 3 days after the initial contact and again after 7 days to only those e-mails that had not submitted a response. Again, there were no names or districts attached to the data. The survey data were transferred to SPSS for analysis.

Low response rate is one limitation of survey research; however, a large sample size should have ensured an adequate number of responses. The researcher contacted 3,121 rural teachers employed in 10 rural school districts to participate in this research. With a sample population this large, a response rate of 7.1% (223 responses) is considered adequate, according to calculations made using guidelines from Mitchell and Jolley (2004). With this response rate, there is a 95% confidence level that the results will be within 5% of the true percentage for the population (Mitchell & Jolley). The actual response rate was 6.9%, consisting of 216 responses. Of these, 10 responses were omitted from the analysis due to missing data, thereby resulting in a final response rate of 6.6%. The low response rate is discussed in more detail in the limitations section.

Analysis

Collected survey responses were transferred from Inquisite to SPSS statistical software. A negatively worded question was included in the NCLB section of the survey instrument. Because of the tendency of people to answer questions in a particular way or to agree with statements (Mitchell & Jolley, 2004), this question was recoded to reverse the Likert scale. Chi square and logistic regression, respectively, were used to analyze the data collected for each of the research questions. Table 3 shows the relationships among the research questions, survey questions, and statistical analysis. An explanation of the analysis for each research question follows Table 3.

Table 3. *Research Questions and Data Analysis*

Research question	Survey questions	Data analysis
What is the effect of origin on teachers' tenures or decisions to stay in rural schools?	Origin (rural or nonrural)	Pearson- Chi square
To what extent do teachers' origins and perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction predict whether teachers plan to stay in rural schools?	Origin Working conditions Salary Isolation NCLB Job satisfaction	Logistic regression

The analysis of data collected for Research Question 1 (What is the effect of origin on teachers' tenure or decisions to stay in rural schools?) was conducted through the use of a Pearson Chi square. The Pearson Chi square compared the distribution of frequencies of the observed data with the distribution that would be expected to occur by

chance. If the calculated Chi square value is 0.05 or less, it is surmised that there is an association between the groups (Salkind, 2000).

In this case, the independent variable, origin, consisted of two groups: rural and nonrural. The dependent variable was the decision to remain employed in a rural school. The Chi square tested the null hypothesis that there is no relationship between the rural and nonrural groups in the frequency of occurrence concerning the decision to remain in a rural school.

Question 2 (To what extent do teachers' origins and perceptions of several factors (working conditions; salary; geographic, social, and professional isolation; effects of NCLB requirements; and job satisfaction) predict whether teachers plan to stay in rural schools?) was analyzed using logistic regression. Logistic regression uses the nonparametric model Chi-square value based on degrees of freedom. The null hypothesis that all of the regression coefficients have no relationship with the dependent variable (excluding the constant) is tested. The null hypothesis is rejected if the significance level is less than .05 and the regression coefficients are presumed not to equal 0 (McKelvey, 2006).

The individual predictors were examined if the Chi-square yielded significant results. The Wald test was used to test the significance of an independent variable in relation to all the other independent variables. The Wald test uses the parameter estimate divided by the standard error or *z* distribution. If a value of more than 1.96 is calculated, results are significant. The Nagelkerke *F*-square, having values ranging from 0 to 1, was

used to test the goodness-of-fit of the logistic regression model by examining how many times a correct prediction was made by the model (McKelvey, 2006).

Logistic regression is used to predict group membership. In this research, logistic regression was used to determine if choosing to remain employed in a rural school could be predicted based on teachers' origins and perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction. The predictor variables were the teachers' origins and perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction. The outcome variable, employment plan, was binary with the two values being whether or not the teachers' would remain employed in a rural school. Probability values for the outcome variable lie between 0 and 1. The closer the value was to 1, the more likely it was that teachers of rural origin would leave rural schools. The results of a residuals analysis and the regression equation are discussed in the findings.

Summated scores were used. Summated scores can be utilized as, theoretically, individual participants consistently select responses that reflect their opinions, whether positive or negative, and those who tend to be neutral on a subject select both (Lemming, not in ref 1997). In addition, statistically, the sum of several questions is more reliable than the sum of one question, and the analyses for summated scores are often simpler (Mitchell & Jolley, 2004). The Likert scale used for this survey instrument (1 = *strongly agree* to 5 = *strongly disagree*) is well-suited to a summated score (Lemming). The range of summated scores for this research is shown in Table 4.

Table 4. *Range for Summated Scores*

Question set	Number of questions	Range of scores
Working conditions	34	34 to 170
NCLB requirements	3	3 to 15
Salary	5	5 to 25
Isolation	15	15 to 25
Job satisfaction	2	2 to 10

In summary, the social theories of Tönnies's Gemeinschaft or Gesellschaft and Durkheim's mechanical or organic solidarity maintain that there are substantial differences in the way that rural and nonrural communities are organized and in the ways that individual members of these different communities interact with each other within these distinct groups. Based on these theories, it was hypothesized that teachers originating from rural areas would accept and understand ruralness and would continue to teach in rural schools in higher numbers than teachers who originated from nonrural areas. It was the intent of this research to provide information to help direct the development of programs to recruit and retain rural teachers. In compliance with this intent, the results of the study will be made available to each rural school district in Virginia and to the teachers employed in those districts. It is the intent of the researcher that these data be evaluated and utilized by each rural school district in Virginia to improve teacher retention.

Chapter 4: Findings

Introduction

This research was conducted to determine if there was a relationship between Gemeinschaft or Gesellschaft origin and rural school teachers' intentions to remain in rural schools and to determine if teachers' origins and perceptions of working conditions, salary, isolation, NCLB requirements, and job satisfaction affected their decisions to stay in rural schools. It was hypothesized that rural teachers have a more positive perception of the factors affecting teacher retention in rural areas and, therefore, tend to remain in rural schools. It also was hypothesized that recruiting teachers from rural areas for rural schools would improve retention rates in rural schools.

A total of 206 responses were included in the data analysis using SPSS to perform Pearson Chi square, Pearson product-moment correlation coefficient, and logistic regression calculations. The results of these tests, as well as the demographics of the respondents, are described in the following sections.

Demographics

Frequencies were calculated for several areas of interest regarding the demographics of the respondents in this research. Of the 206 respondents, 148 (71.8%) identified themselves as rural. Data on marital status were missing for 1.5% of the respondents; 74.3% reported being married, 12.6% reported being single, 1.9% widowed, and 9.7% divorced. Gender data were missing for 1% of the respondents; those reporting indicated 74.3% female and 24.8% male. Ethnicity data were missing for 1.5% of the respondents with those reporting indicating 87.4% White, 7.8% Black, 0.5% Native

American, 1.5% Hispanic, 1.0% mixed, and 0.5% other. Data for 1% of the respondents were missing for level of training, with those reporting indicating 51.5% Bachelor's, 31.1% Master's, and 16.5% other. A demographic comparison of the responses for this research, the SASS 2007-2008 data on rural public school teachers in the United States, and data for all public school teachers in the United States concerning age, gender, and ethnicity is presented in Table 5.

Table 5. *Demographic Comparison of Gender, Ethnicity, and Age*

	Respondents	U.S. rural teachers	U.S. teachers
Gender			
Female	74.3%	75.6%	75.9%
Male	24.8%	24.4%	24.1%
Ethnicity			
White	87.4%	90.3%	83.1%
Black	7.8%	4.6%	7.0%
Native American	0.5%	0.8%	0.5%
Hispanic	1.5%	3.3%	7.1%
Mixed race	1.0%	0.6%	0.9%
Other	0.5%	0.4%	1.4%
Age (years)			
Average	41.7	42.1	42.2
< 30	14.7%	19.1%	18.0%
30-49	50.9%	49.3%	50.1%
50-54	13.5%	13.9%	13.3%
55+	18.5%	17.7%	18.7%

n = 206

As illustrated in Table 5, there were 3.2% more Black and 1.8% fewer Hispanic teachers represented by this population than would be expected for a national average of rural teachers. Overall, the respondents for this research resembled their counterparts in rural schools across the United States as well as the teachers in all public schools in the United States in terms of gender, ethnicity, and age.

A comparison of training and years of teaching experience data for the respondents in this research, the SASS 2007-2008 data on rural public school teachers in the United States, and the data for all public school teachers in the United States is found in Table 6.

Table 6. *Demographic Comparison of Teaching Experience and Teacher Training*

	Respondents	U.S. rural teachers	U.S. teachers
Experience			
Average years	13.3	13.4	13.0
< 4 years	16.6%	18.4%	19.0%
4-9 years	21.8%	26.1%	28.0%
10-14 years	18.4%	16.7%	16.2%
15+ years	42.7%	38.8%	36.8%
Training			
Bachelor's	51.5%	53.0%	47.4%
Master's	31.1%	40.3%	44.5%
Other	16.5%	6.7%	13.1%

n = 206

Again, comparison of the respondents to other rural public school teachers in the United States and to all United States public school teachers shows much similarity, although there is some difference between the training of the respondent population drawn from Virginia rural schools and the training of all rural U.S. teachers. These findings indicate that the respondents are representative of the rural public school teachers in the United States and of U.S. public school teachers in general.

Results for Research Question 1

The analysis of data collected for Question 1 (What is the effect of origin on teachers' tenure or decisions to stay in rural schools?) was conducted through the use of Pearson Chi square. The Pearson Chi square was used to test the null hypothesis that there was no relationship between a teacher's origin and employment plans. If the significance of the Chi square statistic calculated was less than .05, then the null hypothesis was rejected and it was assumed that there was an association between the variables. Certain assumptions were met for the Pearson Chi square to be applied. The data for this test were from a random sample, the sample size was sufficiently large, the cell sizes were adequate, and the observations were independent.

In testing the relationship between teachers' origins and plans for employment, a 2x2 Chi square test indicated that the relationship between rural or nonrural origin and plans to remain in a rural school was insignificant, $X^2(1, N = 206) = .109$, $p = .742$. Because of this finding, data on rural or nonrural elementary school, high school, and university attendance and data on whether or not the teachers were already residents of their areas of employment or whether or not they had relocated from a nonrural area were

analyzed to consider whether or not relationships existed between these experiences and teachers' plans to remain in or leave rural schools.

No relationship was found between attendance at a rural elementary school and plans to remain in a rural school, $X^2(1, N = 206) = .029$, $p = .865$. Similarly, no association was found between rural high school attendance and plans to remain in or leave rural schools, $X^2(1, N = 206) = 1.151$, $p = .283$. No relationship was found between attendance at a rural university and plans to remain in or leave rural schools, $X^2(1, N = 206) = .072$, $p = .788$.

An association was found between teachers who were already residents of their rural areas of employment and their plans to remain in a rural school, $X^2(1, N = 206) = 4.684$, $p = .03$, $ø = .151$. Teachers who were already residents of the rural areas in which they were teaching were more likely to remain in a rural school than those who were not. Similarly, a relationship was found between relocation from a nonrural area to the rural area of employment and plans to remain in a rural school, $X^2(1, N = 206) = 5.062$, $p = .024$, $ø = -.157$. More teachers who had not relocated from a nonrural area planned to remain in a rural school.

To supplement these findings, another analysis was completed using a Pearson product-moment correlation coefficient, or Pearson *r*. The Pearson *r* calculates the strength of the relationship between two variables and ranges between –1 and 1 (Mitchell & Jolley, 2004). A Pearson correlation coefficient was calculated for the relationship between teachers' perceptions of being members of the community in which they live

and their plans for employment. A significant relationship was found between the two variables, although the correlation was weak, $r(204) = .271$, $p < .001$.

Results for Research Question 2

The data for Research Question 2 (To what extent do teachers' origins and perceptions of several factors (working conditions; salary; geographic, social, and professional isolation; effects of NCLB requirements; and job satisfaction) predict whether teachers plan to stay in rural schools?) were analyzed using logistic regression. The logistic regression predicted the log-odds of whether or not a teacher will plan to remain in a rural school. To begin, the plans variable was recoded to 0 and 1 from the original 1 and 2. The Backward LR method was chosen because it begins by entering all the variables into the model and then removes the least significant variables, one at a time, to create alternate models that are examined to determine which model is the best fit.

After completion of the logistic regression, the outcomes were examined. A summary of the Omnibus test of model coefficients is provided in Table 7.

Table 7. *Results for Omnibus Test of Model Coefficients*

	Chi-square	*df*	Sig.
Step 1 model	46.441	6	.000
Step 2 model	46.364	5	.000
Step 3 model	45.362	4	.000
Step 4 model	44.176	3	.000

p < .001

The Omnibus test determines the probability that the calculated Chi-square statistic for each step, or model, is the statistic that would be calculated if the predictors had no collective effect on the outcome. The model Chi-squares, or Omnibus tests of model coefficients, for each of the four steps produced by the analysis were significant ($p < .001$). The null hypothesis was rejected for each model indicating that the predictors do have an effect on the outcome.

Next, the -2 log likelihood for each of the four steps was compared. Table 8 shows the model summary for each step.

Table 8. *Model Summary for Each Step of the Backward LR*

Step	-2 Log likelihood	Cox & Snell *R* square	Nagelkerke *R* square
1	196.560	.202	.291
2	196.637	.202	.291
3	197.639	.198	.285
4	198.825	.193	.279

If the -2 log likelihood had been smaller for each successive model as the least significant variables were removed, each successive model could have been interpreted as being a better predictor of the outcome variable. In this case, there was little change between steps.

The results of the Hosmer and Lemeshow test were also examined. The null hypothesis that there are no differences between predicted and observed values is tested

by the Hosmer and Lemeshow test. In this case, no significant relationships were found. The null hypothesis was not rejected. Predicted and observed values for the model were similar for each step.

The classification table for the model was also examined. For this model, Step 1 correctly predicted 76.2% of the outcomes, Step 2 correctly predicted 75.7% of the outcomes, Step 3 correctly predicted 77.2% of the outcomes, and Step 4 correctly predicted 76.2% of the outcomes.

Step 3 was chosen as the model that best predicted the outcome variable. Although all of the predictor variables remaining in Step 4 showed significance, Step 3 did correctly predict the outcome at a higher percentage than the other steps and there was a very little difference in the -2 log likelihood statistics calculated for each model.

Table 9 provides a summary of the predictor statistics for Step 3.

Table 9. *Predictor Statistics for Step 3*

Variable	B	SE	Wald test	Sig.	Exp(B)
Step 3					
Working conditions	-.037	.015	5.882	.015	.964
Satisfaction	.629	.152	17.120	.000	1.875
NCLB requirements	.091	.084	1.179	.278	1.096
Isolation	.056	.018	9.911	.002	1.057
Constant	-3.310	1.112	8.856	.003	.000

$p < .05$

The Wald statistic and the significance are values used to test the null hypothesis that the coefficient of the variable is 0. Larger Wald statistics indicate greater significance. If $p < .05$, the null hypothesis is rejected and the coefficient for the variable is thought to be different from 0. In this model, the predictor variable, perceptions of working conditions, was significant ($p < .05$); therefore, the coefficient is different from 0. The predictor variables, perceptions of job satisfaction and isolation, were significant ($p < .05$); therefore, their coefficients are different from 0. The *p* value for the variable, NCLB, was not significant; the null hypothesis that the coefficient is no different from 0 is not rejected. Because the NCLB variable is included in the step that was chosen as the model of overall best fit, however, it must be included in the regression equation. The equation for the model is the following:

$P(\text{event Y}) = 1/1 + e^{-3.310 \; - .037(X1) + .629(X2) + .091(X3) + .056(X4)}$. For this equation, X1 represents the a participant's summated score for perceptions of working conditions, X2 represents a participant's summated score for perceptions of job satisfaction, X3 represents a participant's summated score for perceptions of NCLB requirements, and X4 represents a participant's summated score for perceptions of isolation.

The coefficients, or *B* statistics, are given in log-odds units and show how much of a change in the logit of the outcome is associated with a one unit change in the predictor variable. Because the *B* coefficients are difficult to interpret, they are also converted into odds ratios. They are converted by the exponentiation of the coefficients and the converted log-odds are called the Exp(*B*). The Exp(*B*) indicates the change in

outcome given a change in the predictor variable; however, the Exp(*B*) is given in odds ratios of the outcome if there is a one unit change in the predictor variable.

Residuals were calculated to determine where the model was not a good fit and to find outliers that influenced the model. Cook's D, Leverage, Normalized residual, and DFBeta for the predictor variables in the model for each case were examined. Leverage (LEV_1) was between 0, meaning no influence, and 1 meaning highly influential. DFbetas should have been less than 1. Cook's D (COO_1) values should have been similar to each other and under 1. The Normalized Residual (ZRE_1) should have been between positive and negative 2.

The cases with values over 2 on the ZRE_1 were evaluated more closely. Of the 206 cases, there were 10 cases with ZRE_1 scores over 2. Four cases had ZRE_1 scores between 2 and 2.5 and four cases had ZRE_1 scores between 2.5 and 3. One case scored slightly higher than 3 at 3.2. One case had a high ZRE_1 value of 6.1. Those cases had Cook's D and DFbeta scores well within the normal ranges. The Leverage scores were also within normal range of 0 to 1 with no score above .06. On the basis of these data, no cases were eliminated. The results of these analyses are discussed in the following chapter.

Summary

Although the response rate for this research was low, the participants of this study were shown to be demographically similar to other rural public school teachers in the United States and also similar to all public school teachers in the United States with regard to gender, age, years of experience, and training at the Bachelor's level. In terms

of ethnicity, the respondents were similar to rural, public U.S. teachers and to all U.S. teachers for White, Native American, and mixed. There were, however, almost twice as many Black respondents and half as many Hispanics for the respondent group as are found in rural, public U.S. schools. There were also almost three times as many respondents reporting *other* as their level of training compared to teachers in the rural, public U.S. schools. These differences are revisited in the recommendations section.

In addition to noting the similarities in the demographics of the respondents to those of rural public and all public school teachers in the United States, significant results were found in answer to the research questions. Although being of rural origin was not significant in rural teachers' plans to remain in a rural school, established residency in the geographic area of employment and the perception of being accepted as a member of the community were found to be significant. It was also determined that perceptions of working conditions and isolation and job satisfaction were significant in rural teachers' plans to remain in rural schools.

Chapter 5: Conclusions and Recommendations

Introduction

Low teacher retention is an area of concern, particularly in rural areas where smaller schools create close working relationships (Hammer et al., 2005; McClure et al., 2003; Schwartzbeck, 2003) and where a small applicant pool makes it difficult to replace a 15% yearly turnover of teachers (Collins, 1990). According to Tönnies's theory of Gemeinschaft and Durkheim's theory of mechanical solidarity, ruralness is more than a location; it is a way of life centered on community values and needs.

The research of McClure et al. (2003), along with that of Clewell and Villegas (2001a) and Collins (1999), carried these ideas of community into the field of rural education by indicating that ruralness is a way of life as well a geographic location. For teachers to remain in rural schools, they must feel a part of the rural community. Recruitment for rural teachers should therefore focus on people who identify themselves as rural and who have experiences that enable them to understand and appreciate the ruralness of the area in which they are employed. Retention efforts should focus on making the teachers feel that they are members of the community (McClure et al.; Clewell & Villegas; Collins).

Several factors that might influence rural teachers' intentions to remain in rural schools were examined in this research. Through the use of an on-line survey, 3,121 of Virginia's rural public school teachers were questioned about their self-identification as rural or nonrural and their perceptions of working conditions, salary, NCLB requirements, isolation, and job satisfaction. They were also asked whether or not they

intended to remain employed in a rural school; 216 teachers responded. Of the 216 response, 206 were included in the analyses conducted for this research. A demographic comparison of the sample population to the population of rural public school teachers in the United States and to all public school teachers in the United States was also conducted. The findings are reported in the following section.

Findings and Conclusions

Demographic comparisons. As shown in Tables 5 and 6 in Chapter 4, the demographics of the sample population of Virginia rural public school teachers for this research very closely resembled the demographics for rural public school teachers across the United States and all public school teachers across the United States. In terms of gender, approximately 75% of all three populations of teachers were female and 25% were male. The average age for all three populations of teachers was 42. The average number of years of experience for all three populations was 13 years.

Slight differences were seen in the levels of training. Training at the Bachelor's degree level was similar for all three populations but the sample population had slightly fewer Master's level teachers and more "other" than the other two populations. Other small differences were shown in the ethnicity of teachers from the three groups. Although the number of black rural teachers in the sample population was roughly equivalent to the number in all U.S. public schools, there were fewer white and Hispanic teachers and more black in the sample population of Virginia rural teachers.

Research Question 1. In the overview of Chapter 1 and again in the introduction to the methodology section, the idea of rural community as defined by Tönnies's

Gemeinschaft and Durkheim's mechanical solidarity (Ward & Stone, 1996) was discussed. It was hypothesized that recruiting teachers from rural areas for rural schools would improve retention rates in rural schools. Research Question 1 (What is the effect of origin on teachers' tenure or decisions to stay in rural schools?) was analyzed with a Pearson Chi-square. The resulting statistic indicated that the origin of the teacher was not significantly associated with the teacher's decision to remain in a rural school. Other responses concerning teachers' rural experiences were then analyzed to determine which, if any, other aspects of rural experience played a part in the decisions to remain in rural schools. There was no association found between attendance at rural elementary schools, rural high schools, or rural universities and the decision to continue teaching in a rural school. An association was found between established residency in the rural area and the decision to remain in a rural school and also between those teachers who had not relocated from a nonrural area and the decision to remain employed in a rural school. In addition to the analyses of rural experiences, a Pearson *r* was calculated using data from a survey question ("I feel that I am accepted as a member of the community in which I live") and data on the teachers' plans to remain in a rural school. The calculated statistic did indicate a significant positive relationship between feeling membership in the community and plans to remain in a rural school although the correlation was weak.

Based on these findings, the hypothesis that recruiting teachers from rural areas for rural schools would improve retention rates in rural schools was rejected and the null hypothesis that there is no relationship between rural origin and plans to stay in a rural school was accepted. The theories of rural community from Tönnies and Durkheim,

however, still offer insight into rural teacher retention when viewed from a different perspective.

The findings for this research question indicated that it was not rural origin but the intrinsic rural concept of being a member of a community that influenced teachers' plans to stay. In Tönnies's Gemeinschaft idea of rural community, personal relationships are more important in determining actions than formal organizations (Ward & Stone, 1996). Personal relationships were implied by a feeling of membership in the community and the resulting action was the plan to remain in the community's rural school. Similarly, Durkheim's mechanical solidarity states that the strength of the rural community comes from the sameness of its members and the culture created by that sameness (Ward & Stone). Feeling membership in a community indicated that the teacher understood and accepted the culture of the community. The findings of this research showed a significant relationship between feeling membership and plans to remain in a rural school.

Teachers moving into rural areas to teach often have difficulty adjusting to the community and are unable to find the social support systems with which they are familiar (Collins, 1999; Lemke, 1994; Lemke et al., 1992). Established residency and not relocating from a nonrural area, respectively, were shown to have significant relationships with plans to remain in a rural school. Living in a rural community was interpreted as an acceptance and understanding, respectively, of the rural concept of community. Again, the understanding and acceptance of community as defined by

Tönnies's Gemeinschaft and Durkheim's mechanical solidarity was shown by the findings of this research to have an effect on teachers' plans to remain in rural schools.

Research Question 2. Salary concerns, working conditions, NCLB standards for highly qualified teachers, and isolation were identified as the major factors for low retention rates for rural teachers (Beeson & Strange, 2003; Collins, 1999; Hammer et al., 2005; Prince, 2002). Of the identified factors, isolation, both geographic and professional isolation created by the location of the rural area and the social isolation stemming from not belonging to the community or understanding the rural way of life, was cited as being most accountable for low rural teacher retention. Based on the idea of rural community defined by Tönnies's Gemeinschaft and Durkheim's mechanical solidarity (Ward & Stone, 1996), it was hypothesized that rural teachers had a more positive perception of these factors affecting teacher retention in rural areas and would plan to remain in rural schools.

Research Question 2 (To what extent do teachers' origins and perceptions of several factors (working conditions; salary; geographic, social, and professional isolation; effects of NCLB requirements; and job satisfaction) predict whether teachers plan to stay in rural schools?) was analyzed using logistic regression. The best fit model determined by the analysis indicated that there were significant relationships between teachers' perceptions of working conditions, isolation, and job satisfaction and whether or not teachers planned to stay in rural schools. These findings were supported by the research discussed in the literature review of this work in that they did indicate an association

between perceptions of working conditions and isolation and plans to remain in a rural school.

Again, the findings of this study indicate that it is not so much rural origin but more the concept of community defined by Tönnies's Gemeinschaft and Durkheim's mechanical solidarity that matters to rural teachers. Tönnies's and Durkheim's theories both indicate that members of rural communities work together for the benefit of the community more than for the individual. It can be inferred that an understanding and acceptance of the rural concept of community influenced the teachers who responded more positively with regard to perceptions of isolation and working conditions and who were planning to stay in rural schools. Those who understand the rural concept of community would know that rural schools are smaller on average than nonrural schools and tend to be underfunded due to low tax bases and little industry (McClure et al., 2003). They would understand that rural teachers are paid less than their colleagues in nonrural schools. They would understand that rural teachers are often expected to teach multiple content areas and multiple grade levels with fewer resources and are expected to supervise extracurricular activities (Guarino et al., 2006; Hammer et al., 2005; Ingersoll, 2001; McClure et al.; Schwartzbeck, 2003). They would also know and understand that rural teachers are often professionally isolated as well as geographically and socially isolated (Guarino et al.; Hammer et al.; Ingersoll; McClure et al.; Schwartzbeck). It can be inferred that those teachers who understand and accept the rural concept of community accept these conditions as part of their membership in the rural community and are willing to remain in the rural school.

Limitations

A total of 3,127 rural teachers were contacted to participate in this research. A target population of this size should have ensured an adequate number of responses. In this case, it was calculated that a response rate of 7.1% or 223 responses would have provided a 95% confidence level that the results would be within 5% of the true percentage for the population (Mitchell & Jolley, 2004). The obtained response rate was 6.9% or 216 responses. Of these, 10 responses were omitted from the analysis due to missing data resulting in a final response rate of 6.6%. The data collected may have been influenced by the low response rate.

The timing of the survey was also a limitation of the study. The selected teachers were contacted and asked to respond to the survey instrument near the end of the first semester of the school year. This timing may have prevented some members of the target population from responding as work and holiday obligations tend to increase at that time. Also, some teachers may simply not have made a decision about the coming school year so early in the current year. Future researchers may benefit from requesting completion of the survey instrument closer to the end of the school year when teachers are being asked to sign contracts for the next school year.

Another limitation of this study is its generalizability. The participants were chosen from Virginia schools and there was a low response rate; thus, the findings may not be applicable to rural teachers in other states. It should be noted, however, that the

demographics of the respondents are very similar to those of all rural public school teachers in the U.S. and all public school teachers in the U.S. Consequently, the results of this study might be used to inform similar future studies.

Recommendations

The results of this research were intended to help provide direction for the development of programs to increase the rate of rural teacher retention. The literature suggested that drawing teachers from the rural community may be one way to ensure that teachers do consider themselves a part of the community and, as such, they will remain in the rural school. Feeling membership in rural communities was found to have a significant effect on teachers' plans to remain in rural schools. Because of this finding, future research efforts need to focus on what factors create a feeling of community membership. Findings from such studies would guide efforts to create programs that foster community membership and, ultimately, enhance the retention of rural teachers.

When the demographics of the participants were compared to those of rural public school teachers in the U.S., differences were found in the level of training. *Other* was reported as the level of training by 16.5% of Virginia rural teachers whereas only 6.7% of rural public U.S. teachers reported *other*. Research is recommended to determine what the *other* levels entail and why such a difference exists. Research is suggested to determine why rural Virginia teachers reported Master's level training at 31.1% while rural public U.S. teachers reported a 40.3% Master's level training.

Another demographic difference was seen in ethnicity. There were almost twice as many Black respondents and half as many Hispanics for the respondent group as are

found in rural, public U.S. schools. Research needs to be conducted to determine why this difference exists.

Summary

A comparison of the demographics of the sample population for this research showed that the sample was representative of rural teachers in public schools in the United States and was also representative of teachers in general in public schools across the United States in terms of age, gender, and years of experience. The findings of this research indicated that rural origin was not a significant predictor in determining whether or not a teacher planned to remain in a rural school. The findings of this research also determined that perceptions of salary and NCLB requirements did not play a significant role in predicting a teacher's plan to remain in a rural school as was indicated in the literature review. Although rural origin was not found to be significant, the concept of community that is inherent in ruralness was indicated by the significance of the relationship between feeling membership in the community and plans to remain in a rural school and by the significance of the relationship between established rural residency and nonrelocation from nonrural areas, respectively. The findings of this research were supported by the literature that identified perceptions of isolation and working conditions as predictors of teachers' plans to remain in rural schools.

In addition, the findings of this research supported the development of grow-your-own programs discussed in the literature review. Grow-your-own programs focus on recruiting capable community members into the teaching profession based on the assumption that hiring locals will increase retention rates (Hammer et al., 2005).

Similarly, research by Clewell and Villegas (2001) indicated that grow-your-own programs create certified teachers who understand the environment from which their students come and who are already tied to the community. As reported in the literature review, a sense of belonging to and working for the good of the community that rural community members feel can produce rural teachers dedicated to their schools (Clewell & Villegas, 2001; Collins, 1999; Lemke, 1992). Also, Hammer et al. (2005) stated that grow-your-own programs have been identified as promising for raising the rural teacher retention rate. The findings of this research were supported by the above literature. This research showed that established residency in the rural area and feeling membership in the rural community significantly influence the decision to remain in a rural school.

Although the original hypothesis that rural origin would positively influence a teacher to remain in a rural school was not accepted, the findings did provide support for recruiting teachers from rural areas for rural schools. Statistical analyses of the data collected for this research showed a significant relationship between established local residency and whether or not a teacher planned to remain in a rural school. Similarly, feelings of community membership were significantly associated with plans to remain in a rural school.

It was the intent of this research to provide information to aid in the development of programs to recruit and retain rural teachers. Although the original premise that being rural was a major factor in determining retention was not accepted, it was determined that established rural residency and feelings of community membership as well as perceptions of working conditions, isolation, and job satisfaction are associated with plans to remain

in rural schools. Further research into the causes and effects of these predictors is needed to develop new programs to promote rural teacher retention and to improve the already promising grow-your-own programs previously discussed in the literature review.

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Appendices

Appendix A: Survey

Survey: The Importance of Working Conditions, Salary, NCLB Requirements, and Isolation on the Retention of Teachers in Rural School

Adapted, with permission from the author, from the North Carolina Working Conditions 2005-2006 survey. Originally found on the Schools and Staffing Survey (SASS) for the 2003-2004 school year (NCES, 2004).

Thank you for taking the time to complete the following survey. The information that you provide concerning the factors affecting rural teacher retention rates is extremely important. All responses are confidential. The survey should take approximately 15 minutes to complete.

The purpose of this study is collect data about teachers in rural schools. The data collected will contribute to the development of programs to recruit teachers for and to increase the retention of teachers in rural schools. The results of this study will be available to all teachers in participating school districts. An analysis of the aggregated data will be sent to the Superintendent's office for distribution. Again, all individual responses are confidential.

If you have questions about your rights as a research subject, other general questions, or concerns or complaints about the research, you may contact: **Office for Research Subjects Protection, Virginia Commonwealth University, 800 E. Leigh St, P.O. Box 980568, Richmond, VA 23298, Telephone: 804-828-0868**. You can also call this number if you cannot reach the research team or wish to talk to someone else.

Thank you for your participation.

Working Conditions

Please indicate your level of agreement with the following statements with 1 being strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 being strongly agree

a. Teachers have reasonable class sizes, allowing them time to meet the educational needs of all students					
b. Teachers are protected from duties that interfere with their essential role of educating students.					
c. School leaders try to minimize the amount of routine administrative paperwork required of teachers.					
d. There is sufficient noninstructional time during the work day for teachers to work individually or collaboratively on instructional issues.					
e. Teachers have sufficient access to instructional materials and resources					
f. Teachers have sufficient access to instructional technology, including computers, printers, software, and internet access.					
g. Teachers have sufficient access to communications technology, including telephones, faxes, and e-mail.					
h. Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc.					
i. Teachers have adequate professional space to work productively.					
j. Teacher and staff work in a school environment that is clean and well maintained.					
k. Teachers and staff work in a school environment that is safe.					
l. Teachers are trusted to make sound professional decisions about instruction.					
m. The faculty has an effective process for making group decisions and problem solving.					
n. Opportunities for advancement within the teaching profession, other than administration, are available to me.					
o. Teachers select instructional materials and resources.					
p. Teachers set grading and assessment practices.					
q. Teachers are involved in hiring new teachers.					
r. Teachers are involved in establishing policies about student discipline.					
s. Teachers are involved in school improvement planning					
t. There is an atmosphere of trust and mutual respect within the school.					

u. Administrators have clear expectations of students and parents.					
v. School leadership consistently enforces rules for student conduct.					
w. School leadership supports teachers' efforts to maintain classroom discipline.					
x. Community members are provided with opportunities to actively contribute to the school's success.					
y. School leadership consistently supports teachers.					
z. Teachers are held to high professional standards for delivering instruction.					
aa. Teacher performance evaluations are handled in an appropriate manner.					
bb. The procedures for teacher evaluation are consistent.					
cc. Teachers receive feedback that can help them improve teaching.					
dd. Sufficient funds and resources are available for professional development.					
ee. Teachers are provided with opportunities to learn from each other.					
ff. Adequate time is provided for professional development.					
gg. Teachers have sufficient training to use instructional technology.					
hh. Professional development opportunities provide teachers with knowledge and skills to improve their teaching.					

No Child Left Behind Requirements

Please indicate your level of agreement with the following statements with 1 being strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 being strongly agree.

	1	2	3	4	5
a. My school provided training for teachers about NCLB.					
b. My school has sufficient resources to meet the NCLB AYP goals.					
c. Because of NCLB requirements, my teaching assignment will have to change.					
e. My school has provided professional development opportunities for teachers so that they can meet NCLB requirements.					

Salary and Other Compensation

Please indicate your level of agreement with the following statements with 1 being strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 being strongly agree.

	1	2	3	4	5
a. Teacher salaries in my district are adequate.					
b. Health care benefits are reasonable.					
c. Teachers are given sufficient personal leave and sick leave time.					
d. I am satisfied with the salary and benefit package I receive from my current school.					
e. My salary adequately compensates for the costs associated with traveling to my school to work.					

Geographic, Professional, and Social Isolation

Please indicate how important the following statements are to you with 1 being strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 being strongly agree.

a. I am satisfied with the geographic area in which I live.					
b. I am satisfied with the distance that I must drive to work.					
c. I am satisfied with the distance that I must drive to shop.					
d. My distance from major metropolitan areas is not a problem for me.					
e. I have sufficient access to the goods and services that I require.					
f. I have sufficient access to colleges/universities for continuing education purposes.					
g. I have adequate access to other professionals in my content area for collaboration and professional development.					
h. Planning for off campus educational opportunities is not limited by my school's location.					
i. There is adequate employment opportunities for my spouse or partner.					
j. My access to information services is not limited by my geographic location.					
k. I am not isolated from family and friends because of my location.					
l. I am accepted as a member of the community in which I live.					
m. I am involved in community activities outside of school.					
n. I have adequate access to cultural events.					
o. My community views its teachers as valuable members of the local society.					
p. I have adequate access to entertainment venues such as movies.					

Satisfaction with School

Please indicate your level of agreement with the following statements concerning satisfaction with your school with 1 being strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 being strongly agree.

a. Overall, my school is a good place to teach and learn.					
b. Overall, I am satisfied with my school.					

Demographic Information

1. What best indicates your employment plans for the future?
   ____ Continue teaching in a rural school
   ____ Continue teaching but no longer in a rural school
   ____ Other (please specify):_____

2. How many years have you been employed as a teacher? _____

3. How many years have you been employed as a teacher in a rural school?
   _____

4. How did you train to become a teacher?
   ____ Bachelor's degree
   ____ Master's degree
   ____ Alternative route to licensure

5. Were you formally assigned a mentor during your first year of teaching at your current school?
   ____ yes
   ____ no

6. What grade level do you currently teach? _____

7. What subjects are you endorsed to teach? _____

8. What subject(s) do you currently teach? _____

Definitions:

Rural - a small community, usually less than 2,500 people, where the relationships are based on kinship, tradition, the sameness of the members of the community, and the culture created by their likeness.

Nonrural - large areas, of more than 2,500 people, where the relationships are based on the need for interdependence between the members of the community.

9. Using the definitions provided for rural and nonrural, where were you born?
   ____rural
   ____nonrural

10. Using the definitions provided for rural and nonrural, where did you attend elementary school?
    ____rural
    ____nonrural

11. Using the definitions provided for rural and nonrural, where did you attend high school?
    ____rural
    ____ nonrural

12. Using the definitions provided for rural and nonrural, where was the college or university you attended located?
    ____ rural
    ____ nonrural

13. Were you a resident of the area in which you currently teach before you accepted your current teaching position?
    ____ yes
    ____ no

14. Did you relocate from a nonrural area to accept your current position in a rural school?
    ____ yes
    ____ no

15. Did you relocate from a rural area to accept your current position in a rural school?
    ____ yes
    ____ no

16. Using the definitions provided for rural and nonrural, where do you currently live?
    ____rural
    ____nonrural

17. Using the definitions provided for rural and nonrural, do you identify yourself as rural or nonrural?
    ____rural
    ____nonrural

18. Please indicate your gender.
    ____ male
    ____ female

19. Please indicate your marital status.
    ____ married
    ____ single
    ____ widowed
    ____ divorced

20. Please indicate your age. _____

21. Please indicate your ethnicity.
    ____ American Indian or Alaska Native
    ____ Black or African American
    ____ Hispanic
    ____ White
    ____ Mixed or multiple ethnicity
    ____ Other (please specify):_____

Thank you for your participation. Your time and efforts to support this research are very much appreciated.

Appendix B: Superintendent's Letter

123 Garnett Road
Farmville, VA 23901
April, 2009

Dear

As a doctoral candidate in Virginia Commonwealth University's School of Education, I am conducting a research project that will provide information to rural Virginia schools concerning the development of programs to retain rural teachers.

Your permission to obtain a list of e-mail addresses for the teaching faculty would be greatly appreciated. I would like to send a letter of introduction and an invitation to complete a confidential on-line survey to the teachers in your district. I would also very much appreciate your assistance in announcing this project to your teaching faculty.

If you have questions about the rights of research subjects, other general questions, or concerns or complaints about the research, you may contact: **Office for Research Subjects Protection, Virginia Commonwealth University, 800 E. Leigh St, P.O. Box 980568, Richmond, VA 23298, Telephone: 804-828-0868**. You can also call this number if you cannot reach the research team or wish to talk to someone else.

Thank you for your consideration.

Sincerely,

Camilla M. Hodgson
hodgsoncm@vcu.edu

Appendix C: Teacher's Letter

Dear Teacher:

As a doctoral candidate in Virginia Commonwealth University's School of Education, I am conducting a research project that will provide information to rural Virginia schools concerning the development of programs to retain rural teachers.

Your assistance with this project would be greatly appreciated. If you choose to complete the survey, the data that you provide will be used to aid in the development of meaningful programs to increase teacher retention in rural schools. There are no identifiers attached to the surveys so any information you provide is completely confidential. If you choose to participate, please click on the link provided in this e-mail to access the on-line survey. The survey will take approximately 10 to 15 minutes to complete.

If you have any concerns about this research, please contact the Principal Investigator, Dr. Jacqueline McDonnough or the student researcher, Camilla Hodgson. Dr. McDonnough can be reached at Virginia Commonwealth University, School of Education, Department of Teaching and Learning, (804) 828-1305 or jtmcdonnough@vcu.edu. I can be reached at (434) 315-2120, ext.4551 or hodgsoncm@vcu.edu. If you have questions about your rights as a research subject, other general questions, or concerns or complaints about the research, you may contact: **Office for Research Subjects Protection, Virginia Commonwealth University, 800 E. Leigh St, P.O. Box 980568, Richmond, VA 23298, Telephone: 804-828-0868**. You can also call this number if you cannot reach the research team or wish to talk to someone else.

Thank you very much for your assistance. Your efforts on behalf of this study are really appreciated and will benefit rural teachers in Virginia.

Sincerely,

Camilla Hodgson

hodgsoncm@vcu.edu

Appendix D: Vita

Camilla Mahan Hodgson's academic qualifications include a Bachelor of Science degree in Biology, completed at Longwood College in l985 and a Master of Science degree in Environmental Science Curriculum and Instruction, completed in l994 at Longwood College. She currently holds a Virginia Postgraduate Professional license with endorsements in Biology and General Science.

Her work experience includes her current position as a middle school science teacher, six years as a Biology instructor at the college level, seventeen years of teaching at the middle school and high school levels, one year as a biological laboratory technician, three years as a college advisor, and two years as a student mediation facilitator. Courses taught include General Science, Life Science, Physical Science, Earth Science, Biology, Advanced Biology, Chemistry, and university level General Biology, Zoology, and Physical Science.