

2007

## School Psychology Shortage And Urban/Rural Differences

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# SCHOOL PSYCHOLOGY SHORTAGE AND URBAN/RURAL DIFFERENCES

An Abstract of a Thesis  
Submitted  
in Partial Fulfillment  
of the Requirements for the Degree  
of Specialist of Education

Melissa Marie Hickman  
University of Northern Iowa  
July 2007

# SCHOOL PSYCHOLOGY SHORTAGE AND URBAN/RURAL DIFFERENCES

## ABSTRACT

There is a documented shortage of school psychologists. Various factors contribute to this shortage including: (a) attrition, (b) the public's lack of knowledge about the profession, and (c) stressors on the job. A continued shortage could have negative implications for the profession as well as students and schools by lowering standards for credentialing school psychologists. This paper will review literature on several factors that may influence the shortage. Historical trends and demographics of school psychologists will also be addressed. In particular, research and speculations concerning differences between the practice of rural and urban school psychologists will be discussed.

# SCHOOL PSYCHOLOGY SHORTAGE AND URBAN/RURAL DIFFERENCES

A Thesis

Submitted

in Partial Fulfillment

of the Requirements for the Degree

of Specialist in Education

Melissa Marie Hickman

University of Northern Iowa

July 2007

This Study by: Melissa Hickman

Entitled: SCHOOL PSYCHOLOGY SHORTAGE AND URBAN/RURAL  
DIFFERENCES

has been approved as meeting the thesis requirement for the  
Degree of Specialist of Education

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## INTRODUCTION

### Examination of the Major Factors Associated with the School Psychology Shortage

Lund, Reschly, and Connolly (1998) stated there is a shortage of school psychologists in many areas of the United States. There are several possible reasons for this shortage, such as attrition from the field, lack of knowledge about school psychology as a profession, and a small number of school psychology graduate programs (Lund et al.). A factor that may contribute to attrition is the large amount of stress and burnout school psychologists face when working in schools. Helge (1981) described several factors that contribute to high levels of stress which include: the unavailability of testing materials, lack of contact with colleagues, backlog of referrals, the emotional toll of dealing with potential suicide and child abuse cases, the threat of due process proceedings, and working with resistant teachers and parents. These stressors may contribute to the general shortage of school psychologists and may be especially evident in rural settings (CNN, 2004).

Helge (1981) also described several differences rural school psychologists face compared to their urban counterparts. Some of these differences included isolation from other professionals, long distances to travel between schools served, and heavy caseloads. These stressors may contribute to higher rates of attrition among school psychologists in rural settings (CNN, 2004). Since the 1980s, there has been conflicting research and speculation concerning differences between the practice of rural and urban school psychologists. Some research has indicated differences while other studies reveal little to no differences between rural and urban practice. It is important to understand any

differences between settings that impact practice so that school psychologists can be better prepared to serve students and schools in any setting.

Rural and urban school psychologists bring important services to students and schools. School psychologists play an important role in preventing and treating behavioral and academic problems children face (Dwyer, 2001). Furthermore, school psychologists play a critical role in helping teachers implement interventions, obtain special services for students, facilitate prevention programs in schools, and counsel students who need individual help. All of these roles validate the importance of the services school psychologists bring to schools to ensure the well being of students. It is necessary to examine the history of school psychology to look for trends that may influence the future supply and demand for school psychologists.

### Historical Trends in School Psychology

The field of school psychology has changed dramatically over the decades. The number of school psychologists, number of women, salary, roles, and functions have shifted. The current salary has increased substantially from earlier years, women now compose a large proportion of practitioners, and the role has shifted from test-and-place to a broader role of intervention, consultation, and prevention services. Despite the dramatic increase in the number of school psychologists throughout the century, there is still a shortage in the field.

### Number of School Psychologists

Fagan (2002) described the growth of school psychologists over the years and the factors that have contributed to this growth. In 1913, the first survey was completed to

estimate the number of psychologists practicing in schools. This survey identified only 115 psychologists working in schools in the United States. Over the years the number of school psychologists has grown significantly. By 1950 there were approximately 1,000 psychologists serving schools. This increase was caused by the passing of comprehensive special education laws requiring mandatory psychological services of students in need of special help along with the growth in student attendance from the post World War II baby boom. The number of school psychologists has grown since 1950 to current estimates ranging from 25,000-30,000. Even though there has been a significant increase over the century, there is still a need for more school psychologists. The demand for school psychologists is projected to continue for years to come (Fagan, 2002). This shortage in school psychology may be correlated with the feminization of the field because females may be more likely to leave the field for family reasons.

### Gender

While it is commonly believed that the field of school psychology was male dominated in its early years, survey data do not confirm this (Fagan, 2002). Norma Cutts, Gertrude Hildreth, Leta Stetter Hollingworth, and Helen Thompson-Woolley were some of the many early women school psychologists. In 1949, women made up over half of the membership and leadership of Division 16 of the American Psychological Association (APA). Over the years, the proportion of women in school psychology has increased.

In 1995, 70% of school psychologists were women (Curtis, Hunley, Walker, & Baker, 1999). Reschly (2000) predicted the percentage of female school psychologists

will eventually increase to over 85% by the year 2010. There may be a correlation between the shortage of school psychologists and women largely composing the field. Little and Akin-Little (2004) suggested that women are less likely to move for a job and many women maintain much of the responsibility of raising children and taking care of the household. These women who are currently school psychologists and carry the household responsibilities may leave the profession to stay at home and raise the family. Feminization of the field may increase attrition and thus contribute to the shortage. However, more research needs to be done to see if this is a valid conclusion.

### Service Ratios

The service ratio describes the number of children served by one school psychologist. The National Association of School Psychologists (NASP) recommends this ratio to be 1:1,000 (Thomas, 2000). While this number has not yet been achieved nationally, it has been vastly improved since the beginning of school psychology. Fagan (2002) reported that in 1934, the service ratio was 1:60,000. This ratio has been much improved over the years as Reschly (2000) has estimated the current ratio to be 1:1,750.

The ratio of 1:1,750 can be deceiving, however. The ratios in different regions of the country must be examined to get a better understanding of the disparities of service ratios. For instance, in the Northeast (1:1205) and Mid Atlantic (1:1239) regions, the supply of school psychologists is high and therefore, they have lower service ratios. On the other hand, in the East South Central (1: 3351) and West South Central (1: 4692) regions the demand is higher than the supply for school psychologists and consequently the service ratios are greater (Curtis et al., 2004b). Students in these high service ratio

schools may not be receiving the more sought after assistance school psychologists can give such as individual counseling, interventions, and school-wide prevention programs. Therefore, research needs to be done to understand how to ease the shortages in particular regions so students can be better served. The NASP recommended ratio of 1:1,000 is an important goal, to give students and schools the services they deserve.

The ratio of 1:1,000 is ideal because it allows for school psychologists to provide a greater variety of services such as, individual counseling, prevention programs, and consultation. These broader types of services are associated with results that are positive for students (Curtis et al., 2004a). If the shortage of school psychologists does not improve, schools may have to sacrifice the comprehensive support because more time will be spent in special education services due to the larger service ratio (Curtis et al.).

### Roles and Functions

In the early years of the field, the primary job of a school psychologist was to help educators sort children into segregated settings where they were thought to be more successful and so the general classroom would function better for the “average” child (Fagan & Wise, 2000). School psychologists were not central to the system of schooling; they were hired to help the system’s goals of educating the masses more efficiently. The school psychologist was often the “gatekeeper” for special education. The major identifying characteristic of school psychologists in educational settings at this time was administering psychological and educational tests. Therefore, the primary role and function of early school psychologists was administration and interpretation of these tests (Fagan & Wise).

Fagan and Wise (2000) described changes in school psychologists' roles and functions. In recent decades, the role of school psychologist has broadened as a consequence of legislative and litigation actions. School psychologists now take on roles that may include prevention, intervention, consultation, and counseling. Many school psychologists show a preference for the broader role, however, most are still stuck in the role of sorter and repairer, i.e., administering tests to determine eligibility for special education (Reschly, 2000).

Satisfaction with one's job is often a result of performing desired activities. Smith (1984) found that despite school psychologists' preference to spend time on interventions, consultation, and research and less time on assessment activities, 70% of their time is devoted to assessment activities. This discrepancy of desired activities and actual activities can result in job dissatisfaction. Furthermore, dissatisfaction with one's job can lead to attrition and shortage in the field.

#### Current School Psychology Shortage

Several researchers have noted the vast improvement of service ratios between students and school psychologists, however, supply has not met demand (Lund et al., 1998). Davis, McIntosh, Phelps, and Kehle (2004) suggested that even though the overall number of school psychologists has increased over the past 30 years, as more and more near retirement, the shortage will continue to escalate. Furthermore, even though ratios have improved, the NASP recommended ratio of 1:1,000 has not been achieved. This ratio is necessary for school psychologists to take on a broader role that includes prevention and intervention services (Davis et al., 2004). Through the implementation of

prevention and intervention services, counseling, and school wide reform programs, every student can benefit from a school psychologist; not only students with special needs.

### Reasons for the Shortage

Salary. Salary data for the year of 1999 from Thomas (2000) showed that school psychologists received different pay on the basis of the state in which they worked. The reported median salaries ranged from \$42,400 in Iowa to \$52,500 in Maryland to \$61,000 in California. The median responses for full-time practitioners indicated that California school psychologists received an hourly rate of \$39, served two schools, and had an administrative contract type. On the other hand, school psychologists in Iowa received an hourly rate of \$27, served 5 schools, and had an “other” contract type. Reasons for the differences between the aforementioned states may be due to higher living expenses on the coasts than in the midwest. There has been research done concerning salary differences among states, however information is lacking about salary discrepancies within states. If urban school psychologists receive greater salaries than rural practitioners it may contribute to higher rural attrition rates. Research needs to be done to examine if attrition in rural areas is due to lower salaries to begin to understand why rural school psychologists may be leaving these areas.

Attrition. Researchers have speculated about the reasons why the supply of school psychologists is not adequate to meet the demand. Studies have explored the reasons school psychologists leave the field. Reschly and Wilson (1995) stated that school psychologists are generally satisfied with their careers except in the areas of career

advancement and promotion. This dissatisfaction with career advancement is validated by a study Wilczenski (1997) did of school psychologists. Wilczenski's study indicated the most commonly reported reason for leaving the school-based setting was to move to a school principal position or take educational administrative positions. These positions often receive higher pay than school psychologists. For instance, Williams (2004) reported the average salary of elementary school principals in 2003-04 was \$75,144. In 2002, the average salary of school psychologists was \$51,170 (United States Department of Statistics, 2004). From the estimates stated above, principal and educational administrative positions earn about \$20,000 more than school psychologists. Furthermore, Curtis et al. (2004a) reported that school psychologists may move to other professions such as special education director, university professor, or hospital settings. In addition to psychologists leaving the school-based setting for the reasons stated above, Little and Akin-Little (2004) speculated that because many women are in charge of much of the household responsibilities, they may leave the profession to stay at home.

In addition to school psychologists leaving the school-based to work in private practice, take on a different job, or leave the field for family responsibilities, burnout may be another contributing factor. School psychologists can face large amounts of stress on the job. Heavy caseloads, school crises, paperwork, potential suicide and child abuse cases, and resistant teachers and parents are some of the stressors a typical school psychologist may deal with on a daily basis. These stressors may contribute to burnout. Miles and Chittooran (2001) described burnout as "physical, mental, or emotional exhaustion as a product of chronic stress" (p. 3). Burnout can affect many aspects of a



person's life. Physical symptoms such as depression, fatigue, and a weakened immune system may develop (Miles & Chittooran). These symptoms may be detrimental to a school psychologist's work performance.

Burnout can affect the quality of work one does (Huebner, 1992). If a school psychologist is experiencing chronic stress, working days may be missed due to illness, contributing to a decline in job performance. Sickness experienced by the school psychologist may hinder services provided to children and schools in which they work. This decreased quality of work can be damaging to the clients school psychologists serve because school psychologists often influence academic decisions that may significantly impact one's life (Huebner). All of these difficulties a school psychologist may face when working in schools may contribute to high stress levels, which may lead to attrition.

There may be differences in the practice of school psychology in rural and urban areas that affect sources and amounts of job stress and burnout. These differences need to be addressed so proper preparation to work in these settings can be acquired. When these challenges are addressed, future school psychologists can be ready and aware of issues in both rural and urban settings and serve schools more effectively.

Faculty shortage. A reason for the shortage of school psychologists may be due to the lack of faculty to fill positions and create new training programs. About 25% of the nation's school psychology programs are seeking to fill at least one faculty position (Dittman, 2002). Little and Akin-Little (2004) stated that from viewing the *Monitor on Psychology*, from September to December in the year 2002 there were 42 open positions posted. This was declared an underestimate considering there were more open positions

posted in other areas. A shortage of faculty can influence the number of school psychology programs, which affect the number of graduate students, and ultimately impact the shortage.

Graduate students. The lack in numbers of school psychology graduate students entering the school based setting may be another reason for the shortage of school psychologists. From the 217 school psychology programs in the United States, an estimated 1,800 graduate each year. Of these 1,800 new graduates, approximately 1,386 enter the school-based setting (Curtis et al., 2004b). There was an unmet need of 392 school psychologists in the 1997-1998 school year, according to the United States Department of Education, Special Education Programs (1997). This need has continued since then and will likely persist for years to come (Curtis et al., 2004b). A reason for the limited number of students entering graduate programs may be due to the public's misperception of school psychology.

Davis, McIntosh, Phelps, & Kehle (2004) described the public's misperception of school psychology. Many introductory to psychology textbooks do not include information about school psychology. Even when school psychology is included in these textbooks, it is oftentimes not accurately described (Wise, 1985). This lack of accurate information regarding school psychology may contribute to the public's misperception of the profession.

Lund et al. (1998) stated that graduate students may not enter the job market as school psychologists. Some students may never finish the graduate training program, others may graduate and work in private practice or in hospital settings, and some may

graduate and leave the profession temporarily or permanently. Curtis et al. (2004b) stated that about 77.5% of school psychologists work in the public schools. This means 22.5% of school psychologists are employed in other settings. Due to the insufficient numbers of students completing school psychology graduate programs and the fact that many graduate students may not enter the school based setting after completion of the graduate program, actions need to take place to remedy this problem.

Age. As the median age of school psychologists increases, a large number will begin to exit the field due to retirement. Reschly (2000) pointed out that the median age of school psychologists has steadily increased from 38 years old in 1986 to 47 years old in 1997. This increase in age means that a large number of practitioners will be retiring. According to Curtis et al. (2004a), the percentage of school psychologists age 51 or older increased 12%, while those 40 or younger has dropped by 12% over a twenty year span. This suggests that the shortage of school psychologists may increase due to the increasing number nearing retirement.

#### Suggestions to Decrease the Shortage

There have been several suggestions for increasing the supply of school psychologists. In addition to increasing the supply, ideas for retaining school psychologists have been generated. These suggestions include making the graduate programs more appealing by providing assistantships and medical insurance to graduate students (Zhou et al., 2004), attracting professionals to faculty positions (Dittman, 2002) and promoting and advertising the profession of school psychology to the community and undergraduates in college (Lund et al., 1998). All of these ideas would aid in decreasing

the shortage nationwide, however, it may be beneficial for individual states to find specific strategies due to the variability of educational practices between states.

To help attract more people into the profession, Lund et al. (1998), described some ways to increase awareness of the profession of school psychology to undergraduate students. Wise (1985) looked at many introductory psychology textbooks to find that out of the 84 examined, only 26 contained information about school psychology. Furthermore, Wise disappointedly found that the field of school psychology was not correctly or thoroughly described in these textbooks. Correct information needs to be included in introductory psychology textbooks to portray school psychologists accurately and expose the profession to undergraduates. By making undergraduates aware of school psychology, students are more likely to enter the profession.

Along with including accurate descriptions of school psychology in textbooks, school psychologists need to advertise and make themselves known in schools and the community. Eating lunch with teachers, conducting in-services, volunteering in the community, and making administrators well aware of the wide array of skills school psychologists possess are some of the ways to promote recognition of the field (Davis et al., 2004). Through this promotion, more people will understand the job of the school psychologist and may desire to be part of the profession, thereby decreasing the shortage.

Zhou et al., (2004) suggested that by advertising school psychology graduate programs more effectively additional students would be interested in applying to graduate programs. This advertising can be done through participation in career fairs, giving presentations to college undergraduates, and making brochures about school psychology

more available. As a result of this advertising, people will recognize the field more and inquire about the graduate training programs. Zhou et al. made additional suggestions to increase the attractiveness of school psychology graduate programs. Another suggestion was giving financial support such as tuition waivers and medical insurance to graduate students. Money for tuition waivers and medical insurance could be acquired by teaming with a local education agency. A graduate student could be an assistant to a practicing school psychologist throughout the school year. In return for this assistance, the education agency would pay the university. The money the university would get would go to the graduate student in the form of tuition reimbursement or medical insurance. This assistance would not only help the education agency but would also be an invaluable experience for the graduate student from working so closely with the school psychologist. Furthermore, the graduate students would be more likely to stay in the profession because a clear understanding of what school psychologists do through the assistantship experience would be attained.

As actions are taken to attract more people to the profession, more school psychology graduate programs need to be started. This means making school psychology faculty positions more appealing. Faculty need to be paid more, tenure needs to be less intimidating, and research needs to be made more attractive to graduate students to increase the number of people interested in faculty positions (Dittman, 2002). There is a need for faculty positions in many of the school psychology programs across the United States. Dittman stated that out of the 200 school psychology programs, 25% of those have been seeking qualified professionals to fill the vacancies. If steps are taken to make

faculty positions more attractive, graduates would be more likely to fill vacant positions. With more faculty, there would be potential for more graduate programs to be created to train more school psychologists and alleviate the shortage.

All of the strategies discussed thus far would help to increase the number of school psychologists, however, actions need to be taken to retain practicing school psychologists. A challenge reported by school psychologists is stress. A way to retain school psychologists would be to find ways to help alleviate the reported stress experienced on the job. By understanding the stress experienced on the job, strategies and training to alleviate stress can be implemented. Miles and Huebner (1998) suggested several strategies that may help school psychologists deal with stress. One strategy is to include stress management and relaxation techniques in graduate program training that may aid in resiliency of stress on the job. In addition to teaching stress management and relaxation techniques, school psychology professors can model behaviors such as being involved in activities unrelated to school psychology. This would show school psychology graduate students effective ways to lessen stress. Miles and Huebner claimed these are useful techniques, however, further research and evaluations of the effectiveness of techniques used to help school psychologists cope with stress should be done to lessen attrition rates correlated with burnout.

#### School Psychology Shortage Issues: Urban and Rural Differences

Rural school psychologists may experience differences from their urban counterparts such as professional isolation, lack of community understanding, and lack of community resources. Since rural and urban school psychologists may experience

different kinds of issues on the job they may also experience different levels of stress. It may be helpful to understand major differences experienced by rural and urban school psychologists to implement techniques tailored to the distinct role they may have; thereby decreasing stress levels.

### Differences Between the Practice of School Psychology in Rural and Urban Areas

School psychologists working in rural areas may experience different stressors than their urban counterparts. An extensive review of the literature yielded a limited number of research studies done in the 1980s that compared rural to urban school psychologists. Some of the research in the 1980s that was performed showed significant differences between the two settings, however, Reschly and Connolly (1990) disputed the said differences based on conclusions of their survey data. After Reschly and Connolly's article, the research in this area died down until a larger, more recent survey by Curtis et al. (2002) in which differences in rural and urban practice were suggested. In addition to Curtis et al.'s survey, a study of regional differences by Hosp and Reschly (2002) indicated differences in practice among regions of the country. Conflicts in research results may indicate a need to take a different approach to understanding the roles of rural and urban school psychologists. Looking at rural and urban school psychologists within individual states may lead to a more accurate depiction of these practitioners since states have different funding issues, topography, cultures, and resources.

Practice. In the 1980s there was discussion and speculation concerning differences between the practice of school psychology in rural and urban areas. A survey was conducted in 1981 of Virginia school psychologists (Hughes & Clark, 1981). In this

study, Hughes and Clark defined rural school psychologists as employed by one school system or school cooperative serving 3,000 students or less. Urban school psychologists were defined as serving a city school system serving more than 10,000 students. There was an 85% return rate for rural and 73% return rate for urban school psychologists. The questionnaire covered areas of demographics, job activities, and the percentage of time spent on job functions. The results from this survey indicated that urban school psychologists had about twice as much experience as rural practitioners. Rural school psychologists spent an average of 49.70% of time in traditional assessment, whereas urban school psychologists spent 67.23% of their time in traditional assessment. Furthermore, rural practitioners reported having a more diverse role based on responses that indicated more activities were performed within the past six months for rural than urban school psychologists. Hughes and Clark also noted, “practitioners’ comments suggest that the rural school psychologist is professionally isolated, has few services, and practices as a generalist” (p. 194). Another interesting finding was that rural school psychologists have less experience but receive no more continuing education than urban school psychologists. In conclusion, this study found differences between rural and urban school psychologists in the state of Virginia.

Brassard and Barnes (1987) illustrated difficulties rural school psychologists faced when providing services to emotionally disturbed students. Two school psychologists’ experiences and dilemmas in a specific rural district were described. “We routinely face two ethical dilemmas that are commonly reported in rural areas: (a) being called upon to provide services beyond our professional competency and, (b) the



problems of confidentiality in a small community” (p. 393). These school psychologists discussed these issues further. They stated that they were continually asked to provide services that are out of their realm of competency. For example, despite efforts to get students with Emotional Disturbance (ED) appropriate outside services, they were asked to serve students with ED even though they did not have adequate training for this (Brassard & Barnes). Along with providing services without adequate training, school psychologists in rural areas faced the issue of confidentiality. In rural areas, confidentiality can be difficult to maintain. For example, a child who comes to get help from the school psychologist and sees the neighbor who is the secretary can have their confidentiality violated. This can happen when the secretary knows who is seeing the school psychologist and spreads the word around town, which can then create a stigma around the child and family. In rural towns where confidentiality can be a concern, families may not want their child seeing a school psychologist because of a stigma that may be associated with receiving assessments and services. Such dilemmas may lead to stress and frustration among rural psychologists.

Brassard and Barnes (1987) depicted some challenges of two rural school psychologists. Without more research, it would be difficult to tell if these challenges were unique to these rural school psychologists or if these are typical of school psychologists working in rural areas. It seems like confidentiality would be an issue in small towns, creating stress on the school psychologist because students might not receive much needed help. It also seems logical that in rural areas the school psychologist would be the only professional having some counseling training, however,

when they are asked to give services they are not trained for, stress and frustration would likely be experienced.

Cummings, McLeskey, and Huebner (1985) also described some of the major difficulties rural school psychologists often experience. The rural school psychologist may feel like an outsider when he or she initially enters the community. The nature of the small town may make it challenging for an outsider to feel welcomed and accepted. If a school psychologist new to a rural area does not feel part of the community, loneliness and isolation may set in and transfer to an urban setting may take place. Further difficulties a rural school psychologist may experience are: lack of resources for services, long distances to travel between schools, and a high service ratio (Cummings et al.).

An article by Helge (1985) also described some of the distinctions between rural and urban school psychologists. There are many geographic differences for both urban and rural school psychologists. In the urban areas, one is faced with heavy traffic and a higher incidence of car accidents. For rural school psychologists, several miles to travel between schools can consume many hours of the workday and therefore, less time is devoted to services in the schools. Furthermore, Helge indicated that a “lack of psychologists and other resources available to assess student needs and provide services may contribute to the stress and frustration a school psychologist may experience when working in rural areas” (p.408). In addition to the lack of available resources in rural areas, Helge explained the different challenges rural vs. urban school psychologists may experience. For example, the backlog of children for testing and placing is different for

rural and urban practitioners. In rural areas the backlog is from the “lack of available services and lack of parent understanding and permission for testing” (p. 405). Helge also claimed that in rural areas the school psychologist is seen as a generalist whereas in urban areas they are seen as experts in a certain area with a certain age group.

Curtis et al. (2002) analyzed the results of a survey that was completed by 1,922 school psychologists who were randomly selected from the National Association of School Psychologists (NASP) database. One of the primary goals of this study was to examine demographic factors and the practice of school psychologists. Differences were found between rural and urban school psychologists. Rural school psychologists reported less experience, performed fewer consultations with students, and performed more initial evaluations than urban counterparts. These results suggested differences between rural and urban school psychologists. While some studies have shown differences between the practice of rural and urban school psychologists, other studies have shown little to no differences.

Reschly and Connolly (1990) analyzed the results from a survey of 502 school psychologists who were randomly selected from the NASP database and found there to be little to no difference between urban and rural school psychologists regarding career satisfaction, job expectations, and continued intentions to work in the field. Little to no differences were found in these areas, however, there were statistically significant findings concerning professional preparation and experience in different settings. Findings suggested rural school psychologists had more teaching experience and less school psychology experience than urban school psychologists. However, the Reschly

and Connolly survey did not include items such as professional autonomy, supervision, satisfaction with school policies, level of support, and control over role. In addition, no objective definition was provided for the participants in regards to employment setting, thereby making it difficult to know if the researchers analyzed responses from school psychologists who were truly working in rural and urban areas.

There are a limited number of studies done on school psychologists in regards to differences in practice based on settings. There may or may not be much variation between rural and urban practitioners, however, more research should be done to understand practices in rural areas to ensure rural schools are receiving effective services.

Attrition. A study by Hughes (1986) examined turnover rates among rural and urban school psychologists in Virginia during the years 1978-80. Hughes used the Virginia Educational Directory that provided lists of school psychologists in the state of Virginia. From this data Hughes was able to determine how many school psychologists left the school system each year. Rural and urban school psychologists were defined the same way as the Hughes and Clark (1981) study that was described above. Hughes found that out of the 61 school psychologists employed in urban settings during the 1977-78 school year, four left the school system in the 1978-1979 school year and two more left in the 1979-1980 school year for a total of six (9.84%). Interestingly, out of the 28 rural school psychologists employed during the 1977-78 school year, nine did not return the following school year 1978-1979 and three more left the school system in 1979-1980 for a total of 12 (42.86%). This means that the turnover rate for rural school psychologists in Virginia in the years 1977-1980 was four times greater than urban school psychologists.

After determining the number of school psychologists who left rural and urban areas, a survey was sent out to the rural school psychologists who left the school system. There were 10 respondents who indicated the primary reasons for leaving the job. These reasons were: job dissatisfaction (7), psychological services were not supported by the community (3) and reasons unrelated to the job (2). There were a total of 12 responses because two respondents listed two reasons. This study by Hughes supports her previous study about differences between rural and urban school psychologists in Virginia. The differences found by the Hughes and Clark (1981) study may explain the greater turnover rate in rural areas because practitioners may not be prepared for practice in these areas. The Hughes (1986) study revealed that the turnover rate was much greater for rural than urban practitioners, suggesting there may be greater dissatisfaction with the job for rural school psychologists.

Job satisfaction. Job satisfaction among school psychologists practicing in West Virginia was studied by Solly and Hohenshil (1986). Surveys were sent to 106 school psychologists in the state of West Virginia. The names of the participants came from the State Department of Education. The Minnesota Satisfaction Questionnaire was sent to all participants. The participants were also asked to answer questions about demographics. Ninety-six out of 106 school psychologists in the state of West Virginia participated in the study. The study revealed that as the population density increased, job satisfaction increased with a correlation of  $r = .23$ . Two other variables that had the strongest correlation with job satisfaction were salary and supervision. Job satisfaction increased

as the more closely the supervisor's level of training in school psychology increased. Furthermore, as salary increased job satisfaction increased.

This study showed that in West Virginia in 1986, school psychologists living in denser populations reported more satisfaction with their job than school psychologists working in rural areas. It would have been interesting to study the differences in practice between rural and urban school psychologists to examine why school psychologists are more satisfied working in urban than rural areas.

Ehly and Reimers (1986) did a survey of 231 rural and urban school psychologists in a midwestern state. The survey asked questions about job satisfaction, job stability, and quality of professional life. This midwestern state was largely rural in which 41.4% of the residents lived in towns where there were less than 2,500 people. Urban areas were defined as areas with more than 2,500 residents. The state also had suburban areas, but only rural and urban school psychologists participated in the study. Of the 231 school psychologists who received a survey, 159 returned the survey with complete data. The method Ehly and Reimers used was sending 1/3 (53) of the practitioners the entire survey, 1/3 (53) only received the job satisfaction section, and 1/3 (53) received the job stability and quality of professional life sections. This study indicated similarities of school psychologists. "Rural and urban school psychologists shared similar perceptions of job satisfaction, job stability, and quality of professional life across many variables" (p.170).

Rural and urban school psychologists shared similar perceptions, however, there were significant differences on some variables. For job satisfaction, rural school

psychologists reported being more satisfied than their urban counterparts in regards to directly working with children, working with special education vs. mainstream students, and area education agency regulations.

In regards to job stability, urban school psychologists reported higher satisfaction with location of assignment and access of advanced education than rural counterparts. Rural school psychologists were more satisfied with the quality of supervision and area education agency administration and policies. Both rural and urban respondents rated items such as moving to private practice, transferring to a different department outside of school psychology, and working in a clinical/medical setting as low. This suggested that both rural and urban practitioners had high job stability and were not likely to move to another profession.

The final section of the survey inquired about the quality of professional life. The respondents rated several items according to how important they were to shaping their view of the quality of professional life. Rural school psychologists rated the item “personal control/autonomy” significantly higher than urban school psychologists. Furthermore, rural school psychologists rated their supervisors more favorably than did the urban participants. Overall, these results indicated that rural school psychologists had some statistically significant differences from their urban counterparts. Rural respondents rated supervisors more favorably, they were more satisfied with education agency policies, and enjoyed working with special education students more than mainstream students. Based on these results, it seemed like in this midwestern state, rural

school psychologists were more satisfied on more variables than urban school psychologists.

There was a study done in 1984 by Huebner, McLeskey, and Cummings in which rural school psychologists from California, Georgia, Indiana, and Iowa were surveyed. This survey asked about the advantages of being a school psychologist in a rural area. They also indicated their level of satisfaction with their job by using a rating scale that ranged from low to very high. Responses indicated the majority of rural school psychologists had average to high levels of job satisfaction. In addition to job satisfaction, school psychologists were asked about three advantages of working in a rural area. The four advantages that were reported most frequently were: (a) close contact with staff, (b) in-depth knowledge of parents and students, (c) positive regard for school psychological services by parents and staff, and (d) diverse role and autonomy. This study revealed that most of these rural school psychologists had an average to high level of job satisfaction and reported several advantages of working in a rural school.

There are a couple of limitations to the Huebner et al. (1984) study. First, there was only a 32% response rate meaning only 142 completed surveys were used for analysis out of the 444 total surveys that were sent out. This is a low response rate leads to questions about the other 68% and how their responses would have affected the results. Of those that did respond it could be because they were very satisfied with their job and had the time to fill out the survey. On the other hand, the non-respondents may have been extremely busy and stressed out in which there was no time to fill out the survey. These are merely speculations, however, one needs to consider the reasons why 68% of



the sample did not respond. Another limitation to this study is that they were only asked to provide responses to positive aspects of school psychology in rural areas so there was no room for stating difficulties or negative aspects of the job.

A survey by Hosp and Reschly (2002) of 1,423 practicing school psychologists from across the United States showed regional differences in job satisfaction, roles, and assessment practices. School psychologists in the Northeast and MidAtlantic regions were most satisfied with salary but least satisfied with supervisors. Interestingly, these regions had the lowest student-to-psychologist ratios. Regions also had differences in the type of assessment measures used. For example, in the West North Central and East North Central, less subjective measures like duration and timed interval recording are used. On the other hand in the MidAtlantic and Northeast regions projective measures are more often used. The results from Hosp and Reschly's survey are based on regional information and indicated valid differences between regions, however, there is little discussion of differences between rural and urban school psychologists, and no discussion of differences among individual states. Considering the differences found in this survey between regions of the United States, it would seem likely that there would be differences between states and within states among rural and urban practitioners. Research needs to examine individual states more closely to understand the differences school psychologists may experience in rural and urban areas.

#### Other Professionals and Rural Practice

Merrell et al. (1994) described the similarities between the fields of special education, community mental health, and school psychology regarding challenges faced

when practicing in rural areas. The article discussed how services to those with disabilities have vastly improved from the passage of laws like PL 94-142 and Individuals with Disabilities Education Act (IDEA). Despite improvements in services, those living in rural areas do not receive services as effectively as those living in suburban/urban locales (Merrell et al.).

School psychology, mental health, and special education all face similar difficulties when working in rural areas. Merrell et al. (1994) listed several of these commonalities including, “increased responsibility for multiple duties, social isolation on and off the job, and lack of community understanding regarding individuals with disabilities” (p. 31). Another difficulty often experienced by these three fields is a high turnover rate and difficulty obtaining tools and resources necessary for the job.

#### Conclusions From Review of Urban and Rural Differences

When examining the studies that reported differences in the practice of rural and urban school psychology, several consistencies were found in regards to the reported differences. For instance, several of the articles reported that urban school psychologists had more years of experience than rural school psychologists (Ehly & Reimers, 1986; Curtis et al. 2002; Hughes & Clark, 1981; Reschley & Connolly, 1990). Furthermore, two of the articles found that rural school psychologists spent more time in assessment-related activities than urban counterparts (Curtis et al.; Hughes & Clark). Additionally, in regards to job satisfaction, rural school psychologists were reported to be more satisfied with supervisors than urban school psychologists (Solly & Hohenshil, 1986; Ehly & Reimers). It is interesting to note these consistencies because the more prevalent these

findings occur in different studies, the stronger the evidence generalizing differences to all rural and urban school psychologists.

It is interesting to note that when studies have been done to examine school psychologists in a particular state a researcher can see many (Hughes & Clark, 1981) or very few differences between rural and urban practitioners (Ehly & Reimers, 1986). Therefore, it would be interesting to look at individual states to see the variability within the state opposed to across the nation. One would get a better understanding of the differences because there can be much variability within a state because state funding is different, practices can be different, and incomes can vary. The difficulty experienced in rural areas that may influence challenges unique to practitioners in these areas is best explained by Huesy (1972):

Different parts of the country contain very different kinds of cultures and organizations. A poor southern county with a preponderantly black population is very different from an affluent Iowa farm community. Rural areas in New England, in turn, are very different from ranch areas in the Rocky Mountains. (p.200)

This explanation forms the basis of the need to study rural and urban school psychologists at the state level. By doing this, influences of state funding, policies, and cultures specific to states can be understood and in turn, states can find strategies to recruit and retain rural and urban school psychologists more effectively.

One can see that practitioners in fields related to school psychology may experience the same difficulties and challenges. Since research in school psychology and related fields claim difficulties in rural areas, more studies should be done to get a better understanding of difficulties and implement practices that would help the rural school psychologist give the most effective services to students and schools. The rural schools do not have access to resources like urban and suburban schools. This lack of resources includes school psychologists because of the shortage in the field.

School psychologists are important to rural and urban schools. More research needs to be done to alleviate the shortage for both rural and urban areas. Additionally, research examining differences between rural and urban school psychologists is imperative to better train and prepare school psychologists to work in rural schools.

From this review of the literature, several conclusions can be made. The literature that was examined discussed trends in school psychology, reasons for the shortage of practitioners, ways to decrease the shortage, and research concerning differences between the practice of school psychology in rural and urban areas. Some research studies indicated differences in practice between rural and urban school psychology and some showed no differences. The majority of the research concerning differences has been done at a national and regional level. These studies confound differences in state practice with urban/rural differences. What would research reveal if studies were done on a state-by-state basis? Would research show differences between the practice of school psychology in rural and urban areas of an individual state?

### General Conclusions

In conclusion, historical trends show an increase of school psychologists, which makes the service ratios closer to NASP standards. However, the NASP service ratio of 1:1,000 is believed to remain unreached for the next several years. Furthermore, despite the gains in the number of school psychologists over the last several decades, there is still a shortage.

There are several reasons hypothesized for this shortage such as (a) attrition due to stress and burnout, (b) lack of knowledge of the profession by the general public and college undergraduates, (c) few graduate students pursuing the profession, and (d) limited numbers of school psychology programs.

This shortage may be especially prevalent in rural America due to greater attrition resulting from differences in job satisfaction. There were several studies done in the 1980s that examined differences between urban and rural school psychologists. By reviewing these studies it seems that rural school psychologists experience differences from urban school psychologists. Oftentimes, these differences are difficulties because of the isolation, lack of resources, and confidentiality issues experienced in rural areas. Studies conducted in individual states appear to make urban/rural differences more salient than those conducted at a broad regional level. Current studies need to be done at a state level to get a more accurate picture of the difficulties experienced by rural school psychologists. Training aimed at including factors school psychologists face in rural areas is crucial to preparing and retaining practitioners in these areas.

The shortage can have detrimental effects on the profession of school psychology and students of the schools in which they practice. A return to the master's degree for entry, reduced graduate program admission requirements, or waivers for emergency conditions could become common or occur more frequently due to the lack of school psychologists. These actions can lessen the quality of services schools receive and can therefore have an impact on the students and families of these schools. There are several things that can be done to decrease the shortage such as: (a) including accurate descriptions of school psychology in undergraduate psychology textbooks, (b) making the profession more visible in the community, (c) providing stress management techniques to graduate students, (d) paying faculty higher salaries, (e) making graduate school less expensive and more attractive to prospective students, and (f) reducing the stresses experienced by school psychologists, especially those who practice in rural settings. All of these actions can help increase the number of school psychologists who are an invaluable resource to students, families, teachers, schools, and communities.

## METHODS

### Participants

The first step of conducting research was to randomly sample 20% of the school psychologists from Iowa and Kansas. The state database of school psychologists in Iowa and Kansas was used to select the participants. The names were entered in a computer software program in which a random number generator chose the school psychologists who were asked to participate.

### Materials

*Surveys were used to collect information from school psychologists regarding several variables. These variables included demographics (age, gender, ethnicity, salary, years of experience, type of community served, type of degree, number of contract days, number of students served), job satisfaction (colleagues, pay, availability of testing materials, frequency of contact with colleagues, school policies, opportunity for advancement, professional autonomy, and supervision), activities performed during the year, the time spent on activities per week, distances to travel between schools, and distance traveled between home and the office. The last section of the survey allowed participants to record aspects of the job that were most and least satisfying.*

### Procedure

The randomly selected school psychologists were mailed a packet that contained a letter that explained the study, the survey, and a self-addressed stamped envelope in which the survey was to be returned. Implied consent was given by the completion and

return of the survey. School psychologists who did not return the survey were mailed a second packet for the opportunity to participate in the study.



## RESULTS

Twenty-percent of school psychologists in Iowa and Kansas were randomly selected to complete a survey about different aspects of their job based on information from the 2004-2005 school year. Seventy practitioners in Iowa and 163 practitioners in Kansas were mailed surveys. Forty one in Iowa and thirty five in Kansas returned surveys. This resulted in a 33% response rate.

### Demographics

Results indicated that school psychologists in Iowa and Kansas have similar demographics. In both states school psychologists are primarily white, female, in their early 40s, have about 15 years of experience, serve about 1200 students, work a similar number of contract days, and have a salary around \$45,500. Table 1 illustrates the variables that were reported including age, salary, gender, years of experience, number of students served, and contract days. Table 2 lists gender, ethnicity, type of degree, and type of community served according to state. The findings indicated that most school psychologists were female, however, there were differences in gender based on setting.

### Work Settings

In Kansas, 29% of the participants worked in urban settings, 29% worked in suburban settings, and 43% worked in rural settings. In Iowa, 22% worked in urban, 14% worked in suburban, and 64% worked in rural settings. A Chi-square test revealed no significant difference in setting (rural, urban) between states,  $\chi^2(1, N = 63) = 2.63, p = .124$ . In order to investigate differences in work settings for males and females, the categories of urban and suburban were combined because of a small number of men

working in suburban settings. When combining suburban and urban together to create only two different settings (rural and nonrural), a Chi-square test revealed a statistically significant difference in the proportion of men and women working in different settings (rural, urban) when participants in the two states were combined,  $\chi^2(1, N = 63) = 7.09, p = .008$ . Among the male participants, 80% worked in rural settings, and 20% worked in nonrural settings. Among the female participants, 43.2% worked in rural settings, and 56.8% in nonrural settings. Due to the small number of males in urban and suburban settings, differences in setting according to gender could not be analyzed for school psychologists in Iowa although it should be noted that 11 of the 12 male respondents from Iowa reported working in rural settings. There was no difference between genders in work settings in Kansas,  $\chi^2(1, N = 36) = 1.50, p = .221$ . Table 3 lists the proportion of men and women working in rural and nonrural settings by state.

### Work Activities

Consultation, problem-solving meetings, direct interventions, assessments for problem-solving, and initial special education evaluations were reported as the activities school psychologists engaged with most frequently during the 2004-2005 school year. Also, school psychologists reported spending the most hours per week on paperwork and problem-solving activities.

Independent samples t-tests were conducted and revealed some significant differences in the number of activities performed between practitioners in Iowa and Kansas. School psychologists in Kansas reported performing more preschool assessments, re-evaluations, IEP meetings/staffings, and IQ assessments than did Iowa

school psychologists. It was also reported that school psychologists in Kansas had more requests for assessment for identification and a lesser number of assessments for entitlement. Table 4 represents these results.

There were no differences of statistical significance between school psychologists in Iowa and Kansas for many activities performed and the number of hours spent per week on various activities during the 2004-2005 school year. Table 5 lists the mean number of activities performed for school psychologists in both states and Table 6 lists the mean number of hours spent on various activities per week.

#### Differences in Practice for Rural, Suburban, and Urban Settings

Separate one-way between groups analyses of variance were conducted to explore any differences in the practice of school psychology between rural, suburban, and urban school psychologists in number of students served, years of experience, number of IEP meetings, and miles traveled each week. The findings indicated significant differences in the number of students,  $F(2, 57) = 6.5, p = .003$ ; years of experience;  $F(2, 60) = 3.3, p = .043$ ; number of IEP meetings,  $F(2, 55) = 6.5, p = .003$ ; and the average number of miles traveled to the office each week  $F(2, 60) = 5.6, p = .006$ . School psychologists in suburban settings reported serving more students and having more IEP meetings than rural and urban counterparts. Urban school psychologists had more years of experience than suburban school psychologists. Rural school psychologists traveled more miles to work than urban and suburban school psychologists. Tables 7 and 8 represent these findings.

There were no significant differences among psychologists serving in different settings in age, salary, contract days, race/ethnicity, and type of degree. Also, no significant differences were found in number of initial special education evaluations, assessment for problem-solving, preschool assessments, research/evaluation, re-evaluations, direct intervention, consultation, and problem-solving meetings performed during the 2004-2005 school year. The number of hours spent per week doing classroom observations, achievement testing (curriculum-based), achievement testing (nationally normed), intelligence testing, problem solving activities, direct interventions, visual/motor assessment, social-emotional assessment, projectives, counseling, file reviews, paperwork, behavioral assessment, and adaptive assessment were not significantly different between settings. There were no interactions of these variables between the type of setting and state except for years of experience,  $F(2, 57) = 3.1, p = .021$ . Rural psychologists in Iowa had more years of experience than did psychologists serving rural areas in Kansas; Table 9 represents the findings.

#### Job Satisfaction

Respondents rated their level of satisfaction on a scale of 1-4 (1 = strongly dissatisfied, 2 = dissatisfied, 3 = satisfied, 4 = strongly satisfied) for the following: supervision, pay, frequency of contact with colleagues, school policies, professional autonomy, and opportunity for advancement. School psychologists in both states rated all of these areas except for opportunity for advancement as satisfied. Opportunity for advancement was rated as dissatisfied. Table 10 represents the statistical significance in regards to colleagues and availability of testing material. Kansas school psychologists

reported less satisfaction with colleagues and a greater level of satisfaction with the availability of testing material than did Iowa school psychologists.

The last section of the survey allowed participants to record aspects of the job that were the most and least satisfying. Almost half (46%) of the participants in Iowa and Kansas reported working with children as the most satisfying part of the job. The second most reported satisfying part of the job was colleagues. Other satisfying aspects that were reported by both states included autonomy, flexibility, and working on a team. Table 11 represents the percentages according to state. The least satisfying aspect of the job that was the most reported by both states was the amount of paperwork required. Other least satisfying parts are detailed in Table 12 included low pay, no opportunity for advancement, and lack of administrative support. School psychologists in Iowa reported additional unsatisfying parts of the job. These included the amount of driving, isolation from other school psychologists, poorly trained staff, and meetings.

## DISCUSSION

A documented shortage of school psychologists across the country has demonstrated the need to study these practitioners to help determine the reasons behind the shortage. School psychologists are important to rural, suburban, and urban schools. More research needs to be done to alleviate the shortage for all settings. Additionally, research examining differences between settings is imperative to better train and prepare school psychologists to serve these areas.

Past research addressed trends in school psychology, reasons for the shortage of practitioners, ways to decrease the shortage, and research concerning differences between the practices of school psychology in different settings. Some research studies indicated many differences in practice between settings (Hughes & Clark, 1981; Curtis et al., 2002) while other studies showed few differences (Ehly & Reimers, 1986; Reschly & Connolly, 1990). The majority of the research concerning differences has been done at a national and regional level. These studies confound differences in state practice with setting differences. What would research reveal if studies were done on a state-by-state basis? Would research show differences between the practice of school psychology according to setting of an individual state?

The purpose of this study was to investigate if differences between the practices of school psychology according to state and setting would be found. This study revealed similarities and differences between practitioners according to state and setting. Randomly selected school psychologists in Iowa and Kansas were mailed a survey that included questions regarding demographics, types of activities performed on the job,

travel, and the level satisfaction according to different variables. Characteristics of Iowa and Kansas school psychologists were analyzed together as well as practitioners according to setting.

There were many similarities of school psychologists in Iowa and Kansas. Demographic characteristics showed that school psychologists from these states were primarily white, female, in their early 40s, had about 15 years of experience, served about 1200 students, worked about 194 contract days, and had a salary around \$47,000. In addition to demographic similarities, school psychologists in these states were alike in many types of activities performed. The activities that were engaged with most frequently included consultation, problem-solving meetings, direct interventions, assessments for problem-solving, and initial special education evaluations. Also, these school psychologists reported spending the most hours per week on paperwork and problem-solving activities.

Practitioners in both states reported satisfaction with supervision, salary, frequency of contact with colleagues, school policies, and professional autonomy. Opportunity for advancement was rated as dissatisfied by practitioners in both states. The section of the survey that allowed school psychologists to record most and least satisfying aspects of the job revealed working with children and colleagues as the most satisfying parts of the job. The least satisfying aspects included the amount of paperwork, lack of opportunity for advancement, lack of administrative support, and low pay.

School psychologists in Iowa and Kansas reported many similarities, however, differences were also found. In these states, a higher proportion of men than women work

in rural settings, with the largest difference in Iowa. Practitioners in Kansas reported performing more preschool assessments, re-evaluations, IEP meetings/staffings, and IQ assessments than did Iowa school psychologists. It was also reported that school psychologists in Kansas had more requests for assessment for identification, fewer assessments for entitlement, less satisfaction with colleagues, and a greater satisfaction with the availability of testing material. However, there were no difference between states in the number of hours spent on classroom observations, curriculum-based achievement testing, nationally-normed achievement testing, problem-solving activities, direct interventions, visual/motor assessments, social-emotional assessments, projective testing, counseling, file reviews, paperwork, behavioral assessments, and adaptive assessment per week. School psychologists in both states reported performing a similar number of activities during the 2004-2005 school year. These activities included initial special education evaluations, assessments for problem-solving, research/evaluation projects, direct interventions, consultations, and problem solving meetings.

In addition to significant differences between Iowa and Kansas school psychologists, there were also differences between school psychology practices according to setting. When looking at rural, suburban, and urban practitioners from both states, significant differences were found. Suburban practitioners served more students and had more IEP meetings than the rural and urban counterparts. Urban practitioners were older, had more years of experience, and performed more hours of nationally-normed achievement tests than suburban practitioners. Also, rural practitioners traveled more miles to the office than urban and suburban practitioners.



There were a couple of differences between the states in characteristics of rural and nonrural work. In Iowa, rural school psychologists tend to have the least experience, but in Kansas, rural school psychologists have the most experience. In Iowa, rural and nonrural psychologists spend less than an hour and a half each week on assessment of intelligence. However, in Kansas, rural school psychologists spend more time on IQ testing than do nonrural psychologists, 5.7 and 2.8 hours per week, respectively. These differences could be explained by the movement of school psychology practice towards curriculum-based evaluation. School psychologists who are trained more recently and thus have less experience would be less likely to use IQ testing than the school psychologists who have been in practice longer. The longer school psychologists have been in practice, the more likely they would use IQ testing.

It is interesting to note that the majority of school psychologists in each state, 85% in Iowa and 54% in Kansas, reported that working with children was the most satisfying part of their job. School psychology practice is shifting toward a consultative and a systems change model. This shift in practice will likely decrease the time school psychologists spend with kids and result in a decrease of job satisfaction.

The demographics of the respondents reflect those of school psychologists in the United States. Curtis, Lopez, Batsche, Minch, and Abshier (2007) surveyed school psychologists who belonged to NASP (National Association of School Psychology) according to information based on the 2004-2005 school year. Similarities of school psychologists at the national level and those in Iowa and Kansas included that they are mostly white, female, in their mid-forties, and have a nondoctoral degree.

However, the respondents in Iowa and Kansas have lower average salaries than the average in the United States. The average salary for school psychologists in the United States who work 200 contract days is \$62,514 (Curtis et al, 2007). The average salary for school psychologists in Iowa and Kansas is \$47,404 for 194 contract days. Also, the percentage of school psychologists working in rural, suburban, and urban settings was different for Iowa and Kansas school psychologists compared to the national level. The national survey revealed 28.8% of respondents working in rural settings, 50.2% in suburban, and 28.4% in urban settings. Of the respondents in Iowa and Kansas, 46.1% reported working in rural settings, 17.1% in suburban, and 21.1% in urban setting.

In addition to salary and setting differences, practices were also dissimilar. School psychologists at the national level engaged in a different number of activities than psychologists in Iowa and Kansas. School psychologists at the national level reported performing 5.9 504 plans, 34.7 initial special education evaluations, 34.3 re-evaluations, 42.2 consultations, 9.9 individual counseling cases, 8.8 student groups, and 2.6 in-services. School psychologists in Iowa and Kansas reported performing 23.3 initial special education evaluations, 30.5 re-evaluations, and 114.4 consultations.

In conclusion, this study showed differences in demographics and practices in two states that are primarily rural and within the same region. Also, although there are many similarities between the states in rural and nonrural practice, there are also some differences. For example, there were differences in gender according to setting, the number of IQ tests performed, and years of experience. These results support the need to research school psychologists' demographics and practice at the state and setting level to

understand the practices that influence the level of satisfaction and factors that contribute to recruitment and retention of these practitioners. Each state should look at needs and opinions of school psychologists within its own boundaries, and the needs of urban, suburban, and rural psychologists within each state should be examined if we want to determine what they do and how satisfied they are. Future research of school psychologists in states with shortages may help identify reasons for shortages and help employers create ways to recruit and retain effectively.

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Table 1

*Sample Demographics: Mean Age, Salary, Experience, and Contract Days*

	State					
	Iowa			Kansas		
	M	SD	Range	M	SD	Range
Age	43.76	11.45	24-62	43.66	12.04	24-61
Salary	46,533.79	8,828.39	30,000- 75,000	48,275.00	9,174.68	26,000- 67,000
Years of experience	14.89	10.65	0-37	13.33	10.01	0-32
Number of students	1,205.00	558.15	140-2700	1232.39	984.32	315-6000
Contract days	191.11	15.17	140-213	197.74	9.78	180-213

Table 2

*Sample Demographics: Gender, Ethnicity, Degree, and Work Setting*

	State			
	Iowa		Kansas	
	N	%	N	%
Gender				
Male	13	31.70	10	28.60
Female	28	68.30	25	71.40
Ethnicity				
White	39	95.10	32	91.40
African-American	2	4.90	1	2.90
Degree				
MA/MAE	9	22.00	4	11.70
Ed.S.	24	58.50	24	68.60
Ph.D.	5	12.20	3	8.60
Other	3	7.30	2	5.70
Work setting				
Rural	23	56.10	12	34.30
Suburban	5	12.20	8	22.90
Urban	8	19.50	8	22.90
Rural/urban	1	2.40	0	0
Rural/suburban	2	4.90	3	8.60

Table 3

*Proportion of Men and Women Working in Rural and Nonrural Areas According to State*

	State			
	Iowa		Kansas	
	Rural	Nonrural	Rural	Nonrural
	N (%)	N (%)	N (%)	N (%)
Gender				
Male	11 (27%)	1 (2%)	5 (14%)	3 (9%)
Female	12 (29%)	12 (29%)	7 (20%)	12 (34%)

Note. Percents do not equal 100 due to participants did not indicate sex or participants reported working in more than one area.

Table 4

*Independent Samples T-Test for School Psychologists in Iowa and Kansas*

Activity	State		t-test comparison			
	Iowa	Kansas	df	t	p	Eta squared
	M (SD)	M (SD)				
Number of assessments for entitlement	16.62 (15.40)	7.67 (19.63)	64	2.04	.046	.06
Preschool assessments	2.63 (3.60)	9.24 (15.79)	68	-2.35	.025	.08
Re-evaluations	21.81 (19.59)	39.79 (23.90)	70	-3.45	.001	.15
IEP meetings/staffings	73.44 (57.49)	103.06 (63.09)	70	-2.05	.044	.06
Hours spent on IQ testing	1.11 (1.62)	4.15 (2.82)	68	-5.20	.000	.10
Number of requests for assessment for identification	2.93 (2.36)	7.80 (11.87)	74	-2.57	.012	.08
Availability of testing materials	2.65 (.83)	3.09 (.82)	75	-2.28	.026	.07
Level of satisfaction with colleagues	3.48 (.60)	3.14 (.77)	75	2.10	.040	.06

Note. Eta squared values describe the effect size. .01=small effect, .06=moderate effect, and .14=large effect. \*  $p < .05$  \*\*  $p < .01$ .

Table 5

*Number of Activities Performed During the 2004-2005 School Year for Iowa and Kansas School Psychologists*

Activity	Mean	SD
Initial special education evaluations	23.23	21.23
Assessments for problem-solving	18.51	22.40
Research/evaluation projects	3.65	14.75
Direct interventions	27.75	64.87
Consultation	114.42	166.00
Problem-solving meetings	70.86	86.38

Table 6

*Number of Hours per Week Spent on Specific Activities During the 2004-2005 School Year for Iowa and Kansas School Psychologists*

Activity	Mean	SD
Classroom Observations	2.43	2.16
Curriculum-based achievement testing	1.73	2.49
Nationally-normed achievement testing	1.69	2.10
Problem-solving activities	7.14	6.31
Direct interventions	2.50	3.77
Visual/motor assessments	.21	.46
Social-emotional assessment	1.68	1.75
Projective testing	.30	1.24
Counseling	2.17	2.82
File reviews	3.13	2.85
Paperwork	9.46	6.11
Behavioral assessment	2.67	3.10
Adaptive assessment	.79	1.92

Table 7

*Means and Standard Deviations for Rural, Suburban, and Urban School Psychologists*

	Rural		Suburban		Urban	
	M	SD	M	SD	M	SD
Number of Students served	1079.94	467.84	1308.43	13.08.43	1002.38	528.94
Years of experience	14.89	10.89	9.46	6.84	19.19	10.44
Number of IEP meetings	78.03	53.46	146.37	94.37	69.40	32.93
Average number of miles traveled to the office each week	93.91	104.88	26.08	41.80	21.33	38.28



Table 8

*Analysis of Variance for Rural, Suburban, and Urban School Psychologists*

	<i>df</i>	<i>F</i>	<i>p</i>
Number of Students served	2	6.5	.003
Years of experience	2	3.2	.043
Number of IEP meetings	2	6.5	.003
Average number of miles traveled to the office each week	2	5.6	.006

Table 9

*Years of Experience for Rural, Suburban, and Urban School Psychologists between States*

		N	M	SD
Rural	Iowa	22	12.7	10.3
	Kansas	12	19.0	11.3
Suburban	Iowa	5	9.0	3.1
	Kansas	8	9.7	8.6
Urban	Iowa	8	24.6	10.2
	Kansas	9	13.8	7.9

Table 10

*Levels of Satisfaction between School Psychologists in Iowa and Kansas*

	Iowa		Kansas	
	M	SD	M	SD
Level of satisfaction with availability of testing materials	2.7	.83	3.1	.82
Level of satisfaction with colleagues	3.5	.60	3.1	.78

Table 11

*Most Satisfying Aspects of the Job*

	Iowa		Kansas	
	N	%	N	%
Working with Students	35	85	19	54
Autonomy	15	37	6	17
Colleagues	18	44	8	23
Flexibility	10	24	5	14
Working on a team	4	10	2	6
Creating interventions	2	5	3	9
Variety of activities	2	5	0	0
Running groups	3	7	3	9

Table 12

*Least Satisfying Aspects of the Job*

	Iowa		Kansas	
	N	%	N	%
Paperwork	25	61	9	26
Low pay	9	22	1	3
Lack of administrative support	5	12	2	6
Opportunity for advancement	6	15	2	6
Driving	3	7	0	0
Isolation from other psychologists	2	5	0	0
Incompetent staff	0	0	5	14
Meetings	0	0	4	11

## APPENDIX

**Please complete this page according to the 2004-2005 school year.**

Age \_\_\_\_\_ Total number of students in the school(s) you serve \_\_\_\_\_

Gender \_\_\_\_\_ Years of experience as a school psychologist \_\_\_\_\_

Salary \_\_\_\_\_ Type of community served: Rural Suburban Urban

Contract days \_\_\_\_\_

Race/Ethnicity:

- American Indian  
 African American  
 Asian American  
 Hispanic Pacific Islander  
 White

Type of degree:

- MA  
 MAE  
 EdS  
 PhD  
 PsyD  
 EdD  
 Other

**Please estimate the number of activities *you* performed during the 2004-2005 school year.**

Initial special education evaluations \_\_\_\_\_ Re-evaluations \_\_\_\_\_

Assessment for entitlement \_\_\_\_\_ Direct intervention \_\_\_\_\_

Assessment for problem-solving \_\_\_\_\_ IEP meetings/staffings \_\_\_\_\_

Preschool assessments (0-5 years) \_\_\_\_\_ Consultation \_\_\_\_\_

Research/Evaluation \_\_\_\_\_ Problem-solving meetings \_\_\_\_\_

**Please report the approximate number of hours you spent per week during the 2004-2005 school year on the following activities:**

Classroom observations \_\_\_\_\_ Problem-solving activities \_\_\_\_\_

Achievement testing (curriculum-based) \_\_\_\_\_ Projectives \_\_\_\_\_

Achievement testing (nationally-normed) \_\_\_\_\_ Counseling \_\_\_\_\_

Intelligence testing \_\_\_\_\_ File reviews \_\_\_\_\_

Problem solving activities \_\_\_\_\_ Paper work \_\_\_\_\_

Direct interventions (besides counseling) \_\_\_\_\_ Behavioral assessment \_\_\_\_\_

Visual/motor assessment \_\_\_\_\_ Adaptive assessment \_\_\_\_\_

Social-emotional assessment \_\_\_\_\_

**On average, how many requests do you receive for the following per month?**

Problem-solving Consultation \_\_\_\_\_

Problem-solving Assessment \_\_\_\_\_

Assessment for Identification \_\_\_\_\_

**Please answer the following questions by circling the number that indicates your level of satisfaction (1=strongly dissatisfied 2=dissatisfied 3=satisfied 4=strongly satisfied):**

Colleagues	1	2	3	4
Supervision	1	2	3	4
Pay	1	2	3	4
Availability of testing materials	1	2	3	4
Frequency of contact with colleagues	1	2	3	4
School policies	1	2	3	4
Professional autonomy	1	2	3	4
Opportunity for advancement	1	2	3	4

Are you a building based (primarily work alone and call in other support staff when needed) school psychologist or do you work on a team (primarily work with other support staff and serve more than one school)?

On average, how many miles do you travel from your office to the schools you at each week?

On average, how many miles do you travel from your home to the office each week?

What are you *most* satisfied with on the job?

What are you *least* satisfied with on the job?