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Examination of the major factors contributing to the school psychology shortage

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EXAMINATION OF THE MAJOR FACTORS CONTRIBUTING
TO THE SCHOOL PSYCHOLOGY SHORTAGE

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

Sara Ann Recker
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July 2007

ABSTRACT

The shortage of school psychologists in the United States has been an issue for many years. Though research has been done to address regional shortages, no research has addressed the shortages in each state. Furthermore, little research exists that examines the settings in which the practitioner shortage is most critical. This study utilizes survey research to examine the current shortage in each of the 50 states (and the District of Columbia) and also to determine whether the shortages exist in urban, suburban, or rural areas. Additionally, this study begins to examine possible reasons the shortage exists in the different states. Results indicate that a shortage of school psychologists is still prevalent today, and the majority of practitioner openings are in rural settings. The major factors contributing to this shortage are retirement, salary, and promotion to other jobs. Implications for these findings, along with potential future research are presented.

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Specialist in Education

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July 2007

This Study by: Sara Ann Recker

Entitled: Examination of the Major Factors Contributing to the School Psychology Shortage

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

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INTRODUCTION

The shortage of school psychologists in the United States has become an issue in our schools. While the demand for school psychologists is difficult to approximate, it is known that since 1976 there has been a shortage of school psychologists nearly every year (Reschly, 2000). There have been a number of studies done to address this shortage issue and there is no indication that the number of new school psychologists will increase anytime soon. In fact, the shortage may get worse before it gets better as the demand for practitioners continues to outweigh the supply (Fagan, 2004). Lund, Reschly, and Martin (1998) asserted that there would be no school psychologist shortage if every current school psychology graduate student entered a school-based practitioner career and every current practitioner stayed in their job until retirement. However, this idealistic vision is not what is seen in reality. If the shortage persists, the trend is likely to slow the strides that have been made in developing high standards for entry into the field and also slow the expansion of current practitioner roles (Lund et al.).

The research that has been done poses a few questions to be addressed. Why is the United States experiencing this shortage? What have been the trends in the past regarding shortages? What will the trend be in the future? Why are practitioners leaving the field? Why are graduates pursuing other careers instead of assuming a practitioner career? To answer these questions this paper will examine a brief history of school psychology and the historical shortage trends; the extent of the current shortage; and then will focus on the factors associated with the shortage including (a) gender, (b) race/ethnicity, (c) age, (d) level of degree, (e) ratios of student to school-psychologist, (f) graduates and training

programs, (g) setting (urban, suburban or rural), and (h) attrition and those factors contributing to attrition including salary, burnout, and role transition; and will describe the future implications the shortage has on the field.

LITERATURE REVIEW

History

Though the origination of school psychology can be traced back 100 years, the field did not really surface until around 1970 (Fagan & Wise, 2000). The field of school psychology fought to gain a sense of identity in the 1960s and 1970s, when there were a growing number of training programs, professional organizations, and many books and journals that began to appear (Fagan, 2002). The identity was ultimately formed by surveys that provided descriptions of school psychologist training, credentialing, preferred roles, and other demographic characteristics (Fagan).

While school psychology started with 200 school psychologists in the year 1920 and 500 in 1940, the field grew to an impressive 5,000 school psychologists in 1970 (Fagan & Wise, 2000). By 1990 there were approximately 22,000 school psychologists and in the year 2000 the number had risen again to 25,000 school psychologists in the United States (Fagan & Wise).

With regard to the number of school psychologists in public school settings only, the number of school psychologists practicing in public school settings in 1977-1989 was roughly 9,950, and this number increased dramatically to 23,806 in 1997 (USDE, 1980-1991, 1992-1999 as cited in Reschly, 2000). Reschly estimated the total number of school psychologists currently trained and practicing in a professional capacity (including those that practice in universities as faculty, in clinics, mental health facilities, hospitals, or state departments of education and in other areas of public schools) to be around 30,000.

Along with the history of the growth of school psychology comes the history of the school psychology shortage. Though the field of school psychology was booming in the late 1980s, the supply of school psychologists was not ample enough to satiate the demand for practitioners. According to reports by state departments of education, in 1988-1989 there were more than 1,400 positions in public schools that were unfilled (Curtis, Hunley, & Grier, 2004). In the early 1990s the shortage seemed to be moderate, but in 1994-1995 a growing shortage of practitioners began to develop again (Curtis, Hunley, Walker, & Baker, 1999).

Extent of Current Shortage

Since 1976 the demand for school psychologists has exceeded the supply, thus creating a shortage (Fagan & Wise, 2000). According to the Office of Special Education Programs (1999) the supply of school-based school psychologists in the United States in the 1997-1998 school year (including D.C. and Puerto Rico) was approximately 24,898. The demand for school psychologists the same year was about 25,290. This left a discrepancy of 392 school psychologists that were needed, yet there were no more practitioners to fill this demand.

While the number of school psychologists has risen to around to 25,000 to 30,000 (Fagan & Wise, 2000), the standards for school psychological services appear to be rising as well (Little & Akin-Little, 2004). As this paper will discuss, the ratio of students to school psychologists has been improving in the past years (Fagan, 2004). Even though the improving ratio has not reached the 1:1000 recommended ratio (Lund et al., 1998), it

has contributed to the shortage by demanding more school psychologists than can be supplied.

Furthermore, the supply of current school psychologists appears to be facing some issues such as lack of equal gender and minority representation, and age. For example, it was reported that in the 1999-2000 school year an estimated 70% of all school psychologists were female (Dawson, 2002). Not only are males underrepresented, but minorities are as well. Curtis, Grier, Abshier, Sutton, and Hunley (2002) stated that only 7.2% of school psychologists are of minority ethnicity. A huge proportion of practitioners (92.8%) are Caucasian. Without representation of different ethnicities, the field of school psychology is losing out on potential practitioners that could help alleviate the shortage.

Demand for new school psychologists is expected to increase considerably in the next five to ten years because of the aging of the field. Approximately 30% of the already stretched supply of practitioners is nearing retirement (Dawson, 2002) and the evidence of the future shortage is daunting. The supply of practitioners cannot meet the demand for practitioners and continued underrepresentation of different groups is likely. If school psychology does not find ways to recruit and train new school psychologists and keep the ones they have now, it is unlikely that the supply will meet the demand anytime soon.

Factors Associated with the Shortage

Gender

The field of school psychology has become increasingly feminine in the past decade (Dawson, 2002), but that has not always been the case. Gender domination in the school psychology field has dramatically changed since the origination of the field.

School psychology had a great presence of women in the 1930s, with an approximate three women for every man (Finch & Odoroff, 1939 cited in Fagan, 2004). Historically, women were accepted into the school psychology field as it was an education and child development field and thought to be easier than the “harder sciences” areas of psychology (Fagan). However, by the 1960s the ratio had evened out and in the boom of the 1970s favored more men than women in the field, as only approximately 40% of the school psychology field was female (Farling & Hoedt, 1971, cited in Curtis et al., 1999). Since then, females have begun to increasingly dominate the field. In the 1999 to 2000 school year, it was estimated that 70% of all school psychologists were female (Dawson, 2002). This trend continues today, as female practitioners are estimated to potentially grow as high as 85% of the field by the year 2010 (Reschly, 2000).

Little and Akin-Little (2004) reported that the feminization trend is also prevalent in school psychology training programs. However it is important to note that women are not entering the doctoral degree level programs relative to their overall graduate student numbers. Females seem content to be practitioners, as female practitioners outnumber male practitioners with a current ratio of about 70% to 30%. The number of professorate among training programs, however, has a ratio of about 70% male to 30% female (Little & Akin-Little). Two factors contributing to this finding may be the fact that women are less likely to move for employment (especially for women who entered the doctoral level after starting a family), and the fact that it is still commonly accepted for women to undertake the bulk of responsibilities when raising a family. Further research needs to be done to address women’s decision-making processes for selecting jobs, and why

(compared to the representation of women practitioners) women are less likely to enter into professorate positions (Little & Akin-Little).

Race/Ethnicity

School psychology is a very predominantly Caucasian field (Curtis et al., 1999). Compared to the United States' population as a whole, school psychologists who affiliate themselves with racial/ethnic minority groups persist in being underrepresented in the field (Curtis et al., 2004; Reschly, 2000). Curtis et al. (2002) reported that the field is 92.8% Caucasian with all ethnic/racial minorities making up the other 7.2% of the field. This percentage of ethnic/racial minorities has increased only slightly when compared with the 1989-1990 report of 6.1% of the field comprised of minorities. The representations of the individual minority groups also remained constant in that 10-year period (Curtis et al., 2002). With the United States' minority population as presumably such an untapped resource it seems logical to attempt to recruit these minorities into the school psychology field. However, such attempts have not yet been shown to be effective (Curtis & Hunley, 1994 as cited in Curtis et al., 2004). Reschly (2000) predicted that in the next decade the majority of school psychologists will remain overwhelmingly Caucasian.

Age

As the group of school psychologists who entered the field in the 1970s and 1980s begin to wind down their careers, it is becoming apparent that there may not be enough new practitioners to fill the positions. As Fagan (1988) reported:

The first wave of practitioners entered the field prior to 1950 and has long since exited. The second entered between 1950 and 1970 and has retired or can be expected

to exit the field in the coming decade or two. The third, and largest wave of practitioners, entered since 1970 and can be expected to exit the field between 1990 and 2030 (p. 451 as cited in Lund et al., 1998, p. 107).

The fact that over 30% of school psychologists are over age 50 is a daunting concept, and this percentage is increasing (Dawson, 2002). Of the currently practicing school psychologists, roughly one-half will be qualified to retire in the next 10 to 20 years (Hosp & Reschly, 2002). With the retirement issue contributing to the shortage it may be necessary to delay retirement or rehire formerly retired school psychologists (Fagan, 2004). However Fagan questions if retired school psychologists would be able to readjust to stressors and handle the job effectively. "Many will no longer have the stamina, motivation, creativity, flexibility, adaptability, or technical skills they once enjoyed. This is not burnout; rather, it is a simple fact of life to which employees will have to adjust" (Fagan, p. 427).

Level of Degree

As the demand for school psychologists grows higher so do the practitioner degree requirements. Many assumptions have been made about the level of degree that the majority of school psychology graduates will hold in the future. Some believed in the prediction that there would be a massive influx of doctoral level school psychology graduates (one-half of the field), which has ultimately proved to be false (Brown, 1989; Fagan, 1986 as cited in Reschly, 2000). The field has instead welcomed an increase of school psychologists with specialist degrees. From 1970 to 1980, in only 10 years, the proportion of school psychologists who held a specialist degree climbed from 1.8% to 22% (Farling and Hoedt, 1971 as cited in Curtis et al., 2004). Currently the specialist

degree dominates school psychology practice as well as graduate education. This trend is predicted to continue due to the coupled factors of the present school psychology graduate student population and the number of graduate schools that are not approved to grant doctoral degrees (Reschly, 2000). It is interesting to note that Hosp and Reschly (2002) reported that in a survey of 1,056 school psychologists from different regions of the United States, the degree level did not vary by region. Fagan and Wise (2000) further predict that the traditional 1- or 2- year master's degree programs will fade away while the doctoral programs will increase in institutions and the number of specialist-level programs will stabilize.

Ratio

Although the ratio of school psychologists to students is not currently at the 1:1,000 ratio that NASP (National Association of School Psychologists) recommends (Lund et al., 1998), it has vastly improved from where it once stood. The recommended school psychologist to student ratio in 1942 was approximately 3,000 students to every school psychologist (Cornell, 1942 cited in Fagan, 2004). School psychologists were expected to serve 10% of the school population, so this ratio of 1:3,000 translated into one school psychologist undertaking a caseload of 300 students per year. This early recommendation was not met for many years (Fagan, 2004). By 1974 the ratio was 1:4,800 but by 1986 had gone down to 1:2,100 (Fagan, 2004). Lund et al. (1998) reported that in a comparison of 1989 and 1993 survey data a national ratio of 1:1,875 was reported for each of those years. Although the ratio did not improve, it is important that it did not decline during these years where the nation was enduring an economic downturn

(Lund et al.). Thomas (2000) reported a mean ratio of 1:1,816, which indicates continued consistency in the ratio of school psychologists to students.

In 2000, Thomas (2000) reported a ratio of 1:1000 recommended by NASP. In a study by Curtis et al. (1999), almost one-half of the 1,516 school psychologists that participated in the study worked in settings with a 1:1,500 ratio or less. While that is exciting news, conversely almost one-third of the school psychologists surveyed worked in places where the ratio was greater than: 1:2000 (Curtis et al., 1999). It is interesting to note that the regions of the United States that are experiencing the greatest shortages of practitioners (East South-Central and West South-Central regions) also have the highest school psychologist to student ratios. The opposite is also true, as the regions with the highest supply for their demand (the New England and middle Atlantic regions) have the lowest ratios (Curtis et al., 2004).

The shortage of school psychologists threatens the current school psychologist to student ratio that has been improved in recent years. This could have major implications for the quality of service that school psychologists are able to give children, families, and schools (Connolly & Reschly, 1990; Fagan, 1988; Kicklighter, 1976; Ramage, 1979 as cited in Lund et al., 1998).

Graduates and Training Programs

Despite shortages in personnel, the number of graduate students has seemed to stabilize in the past years (Lund et al., 1998). In 1986-1987 an estimated 1,571 school psychology students graduated from their respective programs (Reschly & McMaster-Beyer, 1991 as cited in Lund et al.). The number increased to 1,673 in 1989-1990

(Connolly & Reschly, 1990 as cited in Lund et al.) and slightly increased again to 1,811 in 1992-1993 (Smith, 1995 as cited in Lund et al.). It is important to remember that not all of these graduating students enter the school psychology field. According to Curtis et al. (2004) about 1750 new school psychologists per year graduate and enter the field. Without a significant increase in the numbers of graduate students entering school-based practitioner careers from training programs, the shortage is unlikely to improve anytime soon (Lund et al.).

The stable number of school psychology graduates has not prompted a lot of growth in the number of training institutions across the United States in recent years. In 1970, Fagan and Wise (2000) reported that there were 100 training institutions. This figure increased in the next 20 years to 230 training institutions in 1990, and by 2000 the figure decreased slightly to 218 training institutions (Fagan & Wise). As far as NASP accredited schools go, NASP (2004) reported there were a total of 124 NASP accredited Specialist level training programs and 53 NASP accredited doctoral level training programs. In addition, the American Psychological Association (2004) reported 57 accredited doctoral level training programs in the United States.

As the numbers of training programs and graduate students have remained stable in past years, there is concern that to alleviate the shortage of school psychologists there needs to be an increase in the number of school psychology graduate students.

Beckmann, Kincaid, Swanson, and Tuffree (2002) reported that some undergraduate psychology programs do not do an adequate job of explaining the many facets of psychology to the students. Students reported learning only about clinical psychology

instead of investigating the other areas of the field. Others believe that many people do not know what school psychologists do because they are rarely seen working in the schools. Many times the only students that see school psychologists are those with problems and typically the majority students were not evaluated so they do not know what the school psychologist role is (Beckmann et al.).

Another reason for the limited growth in the field could include fear of the educational systems, especially with regard to the violence incurred in schools in the past few years. If potential school psychologists fear their safety working in the schools they might be more likely to pursue other branches of psychology with settings in clinics, hospitals, or institutions. If these future school psychologists can be made aware that there are numerous approaches to violence prevention and there are many resources available to help schools address these issues (Poland, Pitcher, & Lazarus, 2002), maybe more candidates would be attracted to the school psychology field.

One last possible reason for the lack of growth in the number of school psychology students is the lack of respect shown towards school psychology students by other psychology students. Some believe that it is looked down upon because it is the only profession in the psychology practice that does not require a doctorate (Beckmann et al., 2002). The implication of these beliefs that school psychology is an unknown or a poorly respected profession indicate that perhaps a campaign is necessary to promote school psychology. If students do not know about the field they will not know about the current vast job market in school psychology (Beckmann et al.).

Even if the school psychology field attracted huge numbers of students, there might not be enough faculty in training programs to accommodate the rush. Little and Akin-Little (2004) reported that while the number of training programs has been stable in the past decade, the expectations for the programs to continue their NASP approval and APA accreditation have not. The increasing expectations of programs include a 1:10 faculty to student ratio and at least three faculty members with school psychology training, regardless of the accomplishments and competencies of the other faculty. With a limited number of graduate students entering the doctoral level, an increase in school psychology trainers is unlikely. The lack of school psychology trainers has encouraged some programs to discontinue (Little & Akin-Little).

Setting

Across the United States there are differences in the ratio of school psychologist to students, salary, and job role for different regions. It is clear that certain regions are experiencing greater shortages than other regions. The South Atlantic, East South Central, West South Central, and West North Central regions all appear to have greater shortages than the other regions (Hosp & Reschly, 2002). Though the regional shortages are known, it is not clear which states in these regions currently have the biggest shortages. The last known data recorded of the school psychology shortage in each state is from the Office of Special Education Programs for the year 1997-1998. According to this data, the states with the most vacant school psychologist positions were Colorado (25 positions), Indiana (35 positions), Ohio (23 positions), and New York (128 positions) (Office of Special Education Programs, 1999). It is important to note that Alaska and the

District of Columbia were not included in this data. The total number of all the vacant positions in 1997-1998 was 392 school psychologist positions. The number of fully certified school psychologists working in the schools in all 50 states (including D.C. and Puerto Rico) was 23,933. In addition, another 965 school psychologists were employed but were not fully certified (Office of Special Education Programs, 1999).

Further research needs to be done to break regional and state data down into urban, suburban, or rural shortages. Although there have been studies on the regional numbers of open positions in school psychology that are available (Lund et al., 1998), there is little research on exactly where the most severe shortages exist. Curtis et al. (2004) reported that of school psychologists whose primary employment is school-based, 30.5% work in urban school districts, 44.3% in suburban districts, and 25.3% in rural districts. Connolly and Reschly (1990) reported that with regard to the total number of available school psychology practitioner positions, 27% of the openings were in urban areas, 16% were in suburban areas, and 57% were in rural areas (as cited in Fagan & Wise, 2000). Since 1990, there has been no information reported on the number of current openings for urban, rural, and suburban areas separately.

The shortage in rural areas is a cause of concern. Curtis et al. (2004) reported that the setting (urban, suburban, or rural) makes a difference in the ratio of students to school psychologists. Rural settings are reported to have significantly higher ratios than urban or suburban settings. If greater shortages are occurring in these areas where the ratio of students to school psychologists is already higher than other regional areas, this could cause an undesirable situation to get worse (Curtis et al.). In rural parts of Ohio the need

for school psychologists was so great that school district officials identified those people working in the schools that had local roots and offered to pay part of their tuition at the University of Dayton. In return, the students had to agree to intern at local schools and then work there for at least five years (School Psychologist Shortage Has Impact, 2004).

In addition to finding rural school psychologists, districts must find ways to retain them. For those practitioners not used to driving three hours a day to spend five hours with students, it can be a challenge (School Psychology Shortage has Impact, 2004). Additional research must also address the isolation issues facing many rural school psychologists. Those school psychologists in rural areas are often cut off from regular contact with other school psychologists. To combat this loneliness, organizations, publications, and telecommunications are offered (Fagan & Wise, 2000). Even professional communities on the Internet are beginning to surface as a place to go for school psychologists (especially those in rural areas) looking for support systems and a sense of community (Kruger et al., 2001).

Attrition

Attrition is another contributing factor to the shortage of school psychologists. Practitioners are leaving the field but no one knows how many or why. Though no definite attrition rate is known, Reschly (2000) estimates a rate of 5% annually. Though surveys disclose that there is a generally positive job satisfaction rating for school psychologists (Fagan, 2002), and they are generally very satisfied with their colleagues (Hosp & Reschly, 2002), the numbers of personnel that leave public school sites for other settings or for entirely different professional occupations in other fields probably

contributes to the shortage epidemic. Further research needs to be done to investigate why school psychologists are leaving public school settings. In a survey of 1,056 school psychologists, Hosp and Reschly reported that overall school psychologists were dissatisfied with the potential for promotion in their jobs, and this could be one reason for attrition.

Additionally, more research needs to be done to address the employment patterns of school psychology graduates to better understand the supply-demand characteristics (Reschly, 2000). Lund et al. (1998) reported that the attrition approximations for doctoral level graduate students comprise at least half of all doctoral graduates. It is important to note, however, that not all of this 50% is attrition; some of these graduates do not ever enter into the practitioner position at all and therefore cannot be counted in the attrition rates. In any case, the significant point of this is that at least one half of all Ph.D. graduates do not enter into school-based practitioner positions. However, attrition estimates about doctoral graduates have a rather small bearing on the overall shortage in the job market, as 80% of the job market is made up of masters or specialist degree levels (Connolly & Reschly, 1990; Reschly & McMaster-Beyer, 1991; Smith, 1995 as cited in Lund et al.). It is unclear whether these attrition rates are due to practitioners finding a higher salary in other professions, burnout, dislike of the role transition, or another reason. More research needs to be done to investigate these issues.

Salary. One potential cause for attrition that needs to be considered is the amount of money school psychologists make. Salaries for school psychologists can vary greatly across different regions in the United States, but some argue that salaries are often low

compared to what psychologists can make in other professions (Beckmann et al., 2002). It is important to remember that school psychologists' salaries are influenced by many factors, including the number of contract days, years of experience, degree level, and the region of practice (Fagan & Wise, 2000). Most school psychologists only work nine months each year. While some enjoy their summers off and tolerate the lower salaries, others are forced to find supplemental incomes with summer employment. From 1998 to 1999 it was reported that the mean annual salary for full-time practicing school psychologists across the United States was \$49,089 (Curtis et al. 2004). Thomas (2000) reported the mean school psychologist salary was \$49,086. The mean salary by state ranged from \$37, 907 in North Dakota to \$60,777 in the District of Columbia. States such as California, Michigan, and New Jersey had the highest median salaries. The lowest were found in each state from the Rocky Mountains to the Midwest, with median salaries that were less than \$46,000 (Thomas).

The median salaries for school psychologists (most of whom have a nine-month contract) are considerably less than other branches in psychology (such as clinical, counseling, and/or research positions). According to Williams, Wicherski, and Kohout (2000), the median salary for licensed, doctoral level clinical psychologists with an 11-12 month contract was \$65,000. The overall 11-12 month median salaries for licensed, doctoral level counseling psychologists and research administrators were \$60,000 and \$83,500 respectively.

Burnout. Another contributing factor for attrition among practicing school-based psychologists may be burnout. School psychologists deal with many emotional issues that

can be exhausting and lead to overwhelmed feelings by the demands of the job. Particularly in the first few years on the job, even the most caring and intelligent school psychologists can experience burnout (Fagan & Wise, 2000). These feelings of exhaustion can lead to a reduction in the involvement with both the students and co-workers (Huebner, Gilligan, & Cobb, 2002). "School psychologists are vulnerable to professional burnout and, according to research, may be at greater risk than other helping professions" (Huebner et al., p. 180). The risk of burnout can be estimated by comparing the workload on a school psychologist with the individual strengths and vulnerabilities of that professional to find out how resilient the professional will be. Factors such as the environment the school psychologist is in, their supervision, and peer supports can help prevent burnout (Huebner et al.).

Role transition. One last contributing factor for attrition is the changing of role expectations for school psychologists. In early years the main role of school psychologists was to perform psychometric testing for special education eligibility of students. Surveys performed in the 1960s revealed displeasure with the dominant traditional role of testing and preferred greater involvement in consultation and intervention (Roberts & Solomons, 1970 as cited in Fagan & Wise, 2000). Another survey during this time (Farling & Hoedt, 1971 as cited in Fagan & Wise) indicated that the dominant role of school psychologists was to administer individual psychoeducational evaluations, do report writing, and attend parent-teacher conferences. The preferred role of school psychologists in this survey was to spend more time consulting, evaluating programs and managing behavior, and less time testing. Today more and more school

psychologists are partaking in the more idealistic role of fewer tests and more time in other areas. The role of school psychologists is shifting from the testing focused role to a much broader responsibility that includes mental health, consultation, and crisis intervention in addition to the traditional testing (Fagan, 2004). Whereas some school psychologists enjoy the transitioning role, others may not and opt to leave the field, thus contributing to the attrition rates. More research needs to be done to provide evidence of this.

It is important to remember that the even though the role of school psychologists is transforming, consultation and research still do not play a huge part in typical work weeks for the average school psychologist (Hosp & Reschly, 2002). In a 40-hour workweek, school psychologists spend an overall average of 6.6 hours working on problem-solving consultation and only 2.6 hours per week working on systems-organizational consultation. Research comprises an overall average of only one hour per week. In every region across the United States, school psychologists generally spend at least 50% of their time (if not more) in assessment activities, and up to 66% of their time in special education eligibility determination processes (Hosp & Reschly).

Attrition in Related Fields

School psychology is not the only branch of the special education field that experiences shortages in personnel. An awareness of the research done on attrition in other educational professions may help to direct investigations of school psychology attrition. Throughout the United States there have been critical and recurring shortages of special education professionals (Menlove, Ganes, & Salzberg, 2004; Miller, Brownell, &

Smith, 1999; Sultana, 1997). Boe, Cook, Bobbitt, and Terhanian (1998) reported an annual shortage of about 29,000 fully certified teachers in special education. This shortage is especially threatening when considering the fact that only about 15,000 bachelor's and master's degree students graduated from special education teacher programs in 1990. This means that only about half of the needed special education teachers are entering the field.

Attrition is clearly a factor in the shortage of special educators (Miller et al., 1999). In 1987-1988 approximately 20% of special education teachers left their public school assignments; of that 20%, 12% transferred to a different school and 8% left public school teaching altogether. Of the 8% that left teaching (excluding those that left because of retirement), about two-thirds reported that they might return to teaching eventually (Boe, Bobbitt, & Cook, 1997).

In a study of special education professionals in Utah (Menlove et al., 2004), it was reported that there was a general increase in special education teacher attrition in Utah during the three years of the study. In the first year, 11% of the special education teachers had left their positions and by the third year a total of 13.2% had left. The main reasons for leaving included moving out of state, transferring to general education, changing districts, and retirement. The results indicated that there was very little difference in attrition rates for teachers working with severely disabled students versus those working primarily with mild/moderately disabled students.

Boe, Bobbitt, Cook, Whitener, and Weber (1997) reported that in 1988-1989 age seemed to play a role in attrition rates. There were reportedly higher attrition percentages

occurring for the youngest and oldest special education teachers than in the 30 to 49 year old age group. The potential reason for this could be that the younger special education teachers begin their jobs and discover that it is not what they wanted. Therefore they quickly leave the profession, causing greater attrition rates for younger teachers. Conversely, the older special education attrition could possibly come from the fact that many of the older special education teachers are retiring.

Salary also appears to play a role in attrition of special education teachers. Both the percentages of special education teachers that transferred to general education and those that left teaching were influenced by salary; those who made over \$30,000 were less likely to transfer/leave than those that made less than \$20,000 (Boe, Bobbitt, Cook, et al., 1997).

Role dissonance also may affect attrition rates for special educators (Gersten, Keating, Yovanoff, & Harniss, 2001). The special education teacher's expectations about what his or her job will entail and what it actually does entail is a high predictor of stress related to the job, which can lead to attrition. Finding out that the job demands very large amounts of paperwork and time consuming meetings rather than more time actually teaching and helping the children can be a shock for teachers. This can possibly lead to attrition because teachers are especially vulnerable in their first years and may not believe they can handle the stress of their job long-term, thus opting to either transfer out of or leave the field completely (Gersten et al.).

In addition to age and role dissonance, studies have shown the following variables have demonstrated possible inverse effects on special education teacher attrition: teaching

experience, level of certification, commitment to special education, the ages of dependent children at home, administrator support, salary level, interaction with colleagues, professional satisfaction with professional opportunities, and the number of years since the last degree was earned (Boe, Bobbitt, Cook, et al., 1997; Miller et al., 1999). Other variables appear to be positively related to attrition: transferring to general education (Menlove et al., 2004), and stress due to not receiving enough training/information in how to provide social support and facilitate students' social skills and deal with challenging behaviors (Pavri, 2004). Lastly, contributing factors could also include school climate factors and perceived stress from job design, which includes many facets of the job such as workload, paperwork, and interaction with colleagues (Miller et al.; Gersten et al., 2001).

While there is little research on the retention rates of school psychologists, there are approximate rates for special education teachers. Teachers that have taught for four or more years reportedly have a retention rate of about 88%, compared to those less than four years at 76%. Also, the retention rate for those with a level of salary above \$30,000 is 91%, compared to 82% for salaries less than \$20,000 (Boe, Bobbitt, Cook, et al., 1997).

These variables for special education teacher attrition seem highly related to the variables suggested for school psychologist attrition. Studies of attrition among special education teachers reinforce the hypothesis that salary, role satisfaction, age, support, professional opportunities, and stress play roles in whether practitioners will stay or leave their positions. These results also suggest that the influence of adequate training for the

psychologists' changing role is critical so that practitioners know what to expect. This seems especially true for those practitioners who have been in the field for many years and have seen it evolve.

Implications of the Shortage in School Psychologists

There are negative implications of this shortage that are threatening. First, the shortage obviously threatens the improved ratios of student to psychologist that the United States has recently been enjoying (Lund et al., 1998). This would in turn have an adverse affect on the quality of service given by school psychologists and received by students in the schools. In addition, not only could the shortage hurt the ratio and the quality of services given, it could also undermine the progress that the field has made in terms of training and credentialing school psychologists (Curtis et al., 2004; Curtis et al., 1999). Secondly, if qualified school psychologists cannot be found to fill positions, there could be a reduction in the standards for entry into the field of school psychology. Other negative consequences of the shortage could include (a) temporary certification of school psychologists, (b) moving away from the recent role expansion back to strictly testing students, (c) waiving state regulations, and (d) reducing credential requirements for school psychologists (Fagan, 1988 as cited in Lund et al.).

Not all implications of the shortage are negative. A positive aspect of the current school psychology field would be a strong and thriving job market, and with this strong job market will hopefully lead to increasing the number of training programs available to students (Lund et al., 1998). This fruitful job market could also be strongly welcomed by licensed psychologists who are in need of jobs. Tharinger and Palomares (2004) suggest

helping to alleviate the shortage problem by recommending that licensed psychologists work in schools. Those psychologists who desire to work in schools could either obtain the school psychology credential required of their state or obtain school practice competence and practice psychology in the schools.

Conclusions

Several current trends of demographics in school psychology are predicted to continue to the next decade. Women are expected to continue to dominate the field, and the specialist level will dominate the school psychology practice (Reschly, 2000). With so many school psychologists leaving the field due to retirement or attrition and not enough trained graduates entering the field as practitioners, the shortage of school psychologists will be even greater (Lund et al., 1998).

As far as ratios are concerned, the school psychology field will have to struggle to sustain the student-to-school-psychologist ratio that is currently enjoyed. This is especially true if the role of school psychologists continues to shift from its traditional testing role to a more thorough application of psychology to schools. More school psychologists will be needed to fill these broader positions (Fagan, 2004).

Further research needs to be done to address the current demographics of school psychology. More specifically, research must be done that examines specific demographic groups that are being underrepresented by school psychologists. Additionally, though there is research regarding shortage issues in different regions, research needs to be done to address the current number of shortages in every state and whether these shortages exist in urban, suburban, or rural areas. This would shed light

onto a very important aspect of the shortage: the settings where the shortages are most pressing. If there is a significantly higher shortage in rural areas than in urban or suburban, research could then be done to address this issue and there would need to be investigation into why practitioners are not working in rural settings.

Research also needs to be done on school psychology attrition in general. There is not any research that definitively states how many practitioners are leaving the field each year. Also, though there is much speculation regarding what factors are contributing to attrition, research must be done to specifically address why they are leaving. Existing studies speculate on possible reasons why school psychologists are leaving, but research needs to be done to find concrete factors contributing to attrition that support these theories.

Finally, plans must be created and implemented to attract new students into the school psychology field. Whether this involves putting more information into introductory psychology textbooks and classes or becoming more prominent at career days in schools, steps need to be taken to attract people to this relatively unknown field (Beckmann et al., 2002). Furthermore, efforts also need to be made to keep school psychologists from leaving the field. Efforts that could be made to prevent attrition could include ideas such as offering a greater range of career options, preventing burnout, and showing an opportunity for advancement in the job (Curtis et al., 1999).

Unfortunately the shortage of school psychologists does not appear to be diminishing anytime in the near future. Hopefully by conducting more research and increasing efforts to promote the field, the number of school psychologists will

dramatically increase in the coming years. As Fagan (2004) said in regard to school psychology, “the three R’s for the future are more likely to be Resist, Recruit, and Retain than Relax, Retrain, and Retire” (p. 427).

Purpose of the Study

Though there has been research done regarding shortage issues in different regions, there has not been research done to address the current number of shortages in every state. Additionally, little research exists that addresses whether the shortages of practitioners are more pervasive in urban, suburban, or rural areas. This study aimed to examine the current number of shortages in each of the 50 states (and Washington DC) and also to determine whether the shortages exist in urban, suburban, or rural areas. This information sheds light onto some very important aspects of the shortage: the settings where the shortages are most pressing. If states are aware of the shortage of school psychologists that they are facing perhaps it will help them initiate a plan to attract and retain school psychologists. Also, if there is a significantly higher shortage in certain settings research could then be done to address this issue and investigate why practitioners are not working in particular settings. This could help to distinguish factors contributing to shortages in urban, suburban, or rural areas. Furthermore, this study began to examine possible reasons the shortage exists. Knowing the numbers of practitioner vacancies in each state, where the vacancies most desperately exist, and the potential reasons why there are vacancies could help promote efforts to promote retention and prevent attrition.

METHOD

Participants

All school psychology state directors in the United States and the school psychology director of the District of Columbia were asked to complete surveys. State directors were located by contacting NASP to get a list of the state directors. For those states without state school psychology directors, the state special education director was contacted instead. The special education directors were located by contacting the National Association of State Directors of Special Education to get a list of directors. If the state directors reported that they did not collect the requested data they were asked to estimate. If estimation was used, they were asked to clearly indicate that their information was an estimation by checking a box that was labeled "estimation."

Materials

The survey instrument was developed based on factors that were identified in the literature review. The survey contained a total of 12 questions. In the survey, the school psychology state directors were asked to report the number of school psychologists employed and needed in their state. The survey also had questions about whether the practitioner vacancies were in rural, suburban, or urban areas. School psychology state directors also indicated how many current school psychologists in their state were working without a full certification/licensure, and distinguished how many practitioners were full or part-time.

In addition to providing numbers, the state directors also indicated the main reason why there is a shortage in that state. This was done because practitioners are

leaving the field, but the reason they are leaving is unknown. This helped to investigate why school psychology practitioners are leaving in each state, and provided insight into differences in states that cause school psychologists to leave. These questions provided information on the reasons for the shortages in each state. The “reason for shortage” question asked state directors to order the categories as they felt they contributed to their particular state’s shortage, with “1” being the main contributor to the shortage and each other contributor subsequently ranked. The categories were based on potential factors that were thought to contribute to attrition. These categories include: (1) retirement, (2) transferring out of state, (3) salary, (4) burn-out, (5) promotion, (6) marriage/children/family, (7) changing careers, (8) illness, and (9) other.

Procedure

Surveys were mailed to the school psychology state directors in each of the 50 states and Washington DC. If no school psychology state director was identified the survey was sent to the special education state director. The survey was mailed with a return envelope. If no response was heard within two weeks there was a follow-up letter sent. If no response is heard after another two weeks, another follow-up letter was sent. All participants were eligible for a drawing for a \$35 gift certificate.

RESULTS

Respondents

Of the 51 representatives that received this survey, there were 30 total respondents for an overall reply rate of 59%. The 30 respondents represented a portion of each of the nine regions in the United States identified by Lund, Reschly, & Martin (1998). Respondent states are described in Table 1. Of the 30 respondents, 23 replied with some or all of the survey completed. The regions with the highest percentages of representatives of states who returned surveys that were at least partially completed were New England (67%), East North Central (60%), and West North Central (57%). Seven additional states replied indicating that their state did not collect the requested data (five states) or that they personally did not have the data but possibly others in the state could (two states). Follow up surveys to these representatives were not returned.

Of the 22 representatives of states who responded with either an actual or estimated number of filled positions, a (conservative) total of 15,299 school psychologist positions (both full and part time) were calculated, representing approximately 61% of the estimated number of practicing school psychologists in the US. This percentage was calculated utilizing the supply of school-based school psychologist data from the 1997-1998 school year, which estimated the total number of practitioners to be 24,898 (Office of Special Education Programs, 1999). In terms of the settings that school psychologists work in (urban, suburban, or rural areas), the states that were represented in this represented the work settings of the practitioners working in the United States $\chi^2(2, N=13) = 4.23, p = .223$.

Shortage of School Psychologist Practitioners

The past trend of school psychologist demand being greater than the supply continues to be an issue today. The estimated number of school psychologist positions that are both filled and unfilled is approximate, given the fact that (a) not all of the representatives from states responded to the survey and (b) not all the representatives that did respond were able to report a number of unfilled positions in their state. Of the 13 representatives that responded with either an actual or estimated number of unfilled positions, a (conservative) total of 249 unfilled positions were calculated for those 13 states alone, a shortage of approximately 2% of all positions in the 13 states.

To know where the shortages are most pressing it is important to break this number of 249 unfilled practitioner positions down to report the number of unfilled positions in each of the 13 responding states. Unfilled positions are reported by state in Table 2. In addition to looking at raw numbers, it is interesting to consider the percentage of total school psychology positions in each state that are unfilled. This allows for the total number of unfilled positions to be compared with the number of possible positions. Of the representatives of states who responded, the states with the highest percentages of vacancies include Arizona, West Virginia, and Vermont. Those states with the least percentage of vacancies in their state included Kansas, Maryland, and Ohio.

Filled and Unfilled Practitioner Positions

Thirteen of the 23 respondents of the surveys were able to report where practitioners are in terms of a rural, urban, or suburban setting. In total, 32% work in urban areas, 34% work in suburban areas, and 32% of the school psychologist

practitioners currently work in rural settings. When these percentages are broken down and analyzed by individual states, the states with the highest percentage of practitioners in rural settings are Iowa, West Virginia, Vermont, and Minnesota. Those states with the greatest percentage of practitioners in an urban setting were Alaska, Missouri, Maryland, and Rhode Island. The states with the greatest percentage of practitioners in a suburban setting were Oklahoma, New Hampshire, and Pennsylvania. The proportions of practitioners in each setting are described for each of the 13 states in Table 3.

Seven of the 23 respondents of the surveys were able to report current shortages by setting, as reported in Table 3. It is important to note though only seven state representatives responded to that question, these seven states are an accurate representation of the United States in terms of percentages in each setting $\chi^2 (2, N=7) = 4.4, p = .199$. Fifty-six percent of the current openings in those seven states are currently in rural areas, 21% are in urban areas, and 23% are in suburban areas. The states with the highest vacancies in rural positions were Iowa, Ohio, and Minnesota. The state with the highest percentage of openings in urban positions was West Virginia. Lastly, the state with the highest percentage of practitioner openings in suburban areas was New Hampshire.

Reasons for the Shortage

State directors were asked to give their perceptions on the greatest reasons that school psychologists in their particular state leave their positions by choosing from a list of possible reasons: (a) retirement, (b) spouse changing jobs, (c) salary, (d) family/marriage/children, (e) changing careers, (f) illness, or (g) other. Eighteen state

respondents completed this section of the survey and ranked the reasons from those that contributed most to practitioners leaving to those that contributed the least. In these respondents' opinions, the top three issues that are contributing most to practitioners leaving their positions were retirement (78% of the respondents listing retirement in the top three reasons), salary (50% of respondents), and getting promoted to another job (44% of respondents).

Since it was anticipated that salary would be one of the main reasons for attrition among practitioners, respondents of the surveys were asked to report starting and average salary by state. See Table 4 in the Appendix for complete listing of the salaries. Of the 14 respondents who were able to give starting, average, or both types of salaries, the states with the highest starting salaries were Alaska, California, and New Hampshire. Those with the highest average salaries were Maryland, California, and Ohio. Those states with the lowest starting salary were West Virginia, Iowa, and Minnesota. The lowest average salaries were reported in the states of West Virginia, Mississippi, and Iowa.

Correlations were run to determine if a relationship between the salary (starting and average) in a state and the percentage of practitioners both filled and unfilled in each setting exists. The relationship between the starting salary in a state and the percentage of school psychology practitioners currently working in a rural setting was found to have statistical significance for $n=14$ states ($r = -.93, p < .01$). More explicitly, states with higher starting salaries tended to have a smaller proportion of practitioners in rural settings. No statistical significant relationships were found between average salary earned and percentage of filled and unfilled practitioner positions by setting.

Another factor to consider when contemplating the practitioner shortage would be what entity employs most of the school psychologists in the state. This is important to consider because it is another aspect of the setting that school psychologists are working in. Of the responding states, 19 indicated that school psychologists in that state were employed by districts. Two states reported practitioners employed by regional agencies, and one state indicated that an estimated 50% of their practitioners were employed by districts and the other 50% were employed by coops.

DISCUSSION

Shortage of School Psychologist Practitioners

The shortage of school psychologists in the United States has been an issue for decades. According to reports by state departments of education, in 1988-1989 there were more than 1400 positions in public schools that were unfilled (Curtis et al., 2004). The last known data recorded of the school psychology shortage in each state is from the Office of Special Education Programs for the year 1997-1998. According to the Office of Special Education Programs (1999) the supply of school psychologists in the United States in the 1997-1998 school year (including D.C. and Puerto Rico) was approximately 24,898. The demand for school psychologists the same year was about 25,290. This left a discrepancy of 392 school psychology positions that were unfilled. According to this data, the states with the most vacant school psychologist positions were Colorado (25 positions), Indiana (35 positions), Ohio (23 positions), and New York (128 positions) (Office of Special Education Programs, 1999). Alaska and the District of Columbia were not included in this data.

The shortage of school psychologists continues today. Currently, of the 13 responding states, the states with the most vacant school psychologist positions are Arizona, California, Illinois, Wisconsin, and Colorado. Of the responding states, the states with the fewest vacant positions were Kansas, Vermont, Iowa, Minnesota, and West Virginia. While the states with the leading number of vacancies have changed somewhat, it is important to remember that only 13 representatives of states were able to

provide this data. Therefore the interpretations of this data are limited, given the limited number of respondents.

There are specific implications, however, that can be drawn from the data that was provided by the respondents of the surveys. First, even with the limited number of respondents it is evident that a shortage of school psychologists remains in effect throughout the United States. Possible reasons for this shortage are discussed later. Secondly, it is evident that not all states keep data on the numbers and settings of school psychologist positions that are both filled and unfilled, and where those positions are in terms of setting which is an important factor to consider. If data are not kept to determine where states are experiencing the greatest need for school psychologists (and why those areas are experiencing the greatest need) it could make the efforts to attract and retain school psychologists to those areas extremely challenging.

Setting

Why is there a continuing shortage of school psychologists in the United States? What are the reasons contributing to this shortage? These factors are important to consider because they could ultimately inform attraction and retention efforts. While there are many factors to consider, one of the first issues to address is the location of both the filled and unfilled school psychologist job settings in each state in terms of rural, urban, or suburban areas.

Filled Practitioner Positions.

Curtis et al. (2004) reported that of school psychologists whose primary employment is school-based, 30.5% work in urban school districts, 44.3% in suburban

districts, and 25.3% in rural districts. The thirteen state respondents in this study who were able to give actual or estimated setting data reported that 32% work in urban areas, 34% work in suburban areas, and 32% of the school psychologist practitioners currently work in rural settings. The proportion of filled positions in each setting did not differ significantly from the proportion in each setting reported by Curtis et al.

Unfilled Practitioner Positions

When studying the total number of available school psychology practitioner positions, Connolly and Reschly (1990) reported that 27% of the openings were in urban areas, 16% were in suburban areas, and 57% were in rural areas (as cited in Fagan & Wise, 2000). Since 1990, there has been no information reported on the number of current openings for urban, rural, and suburban areas separately. Seven of the 23 states for which data were submitted in this study reported current shortages by setting. Fifty-six percent of the current openings are in rural areas, 21% are in urban areas, and 23% are in suburban areas. The data in this study was similar to the data reported by Connolly and Reschly (1990, as cited in Fagan & Wise, 2000), with the majority of openings being in rural areas. The data in this study show that (for the seven state respondents to this question) currently practitioners are evenly distributed across rural, urban, and suburban areas. If this is true for all states and not just the seven states represented in this study, and the majority of vacancies are still in rural areas, this would be indicative that further research in the area of rural settings is warranted. Further research could address the specific factors of working in a rural setting that may be contributing to the high percentage of vacancies in these areas as opposed to urban or suburban areas.

Reasons for the Shortage

In addition to the setting, it is important to consider other issues that may be contributing to the school psychologist shortage. According to 18 representatives of states who responded to the question about reasons for attrition, the major factors contributing most to practitioners leaving their positions are retirement, salary, and getting promoted to another job. There are clear implications from these reasons that can help states direct their focus to help recruit and retain school psychologists. In terms of salary, in this study and in a study done by Connolly and Reschly (1990, as cited in Fagan & Wise, 2000) the highest percentage of vacancies are shown to be in rural areas. According to the current study, there is a negative correlation between starting salary and the percentage of practitioners in rural settings in the state. If the highest percentages of starting positions are in rural areas and rural areas have the lowest starting salary it will be difficult for states to attract and retain practitioners to these positions, especially if other factors of being in a rural setting are contributing to attrition.

Further research is necessary to start to answer some questions on what states need to do to work to attract and retain school psychologists. In this study, the three main factors that state representatives reported that were responsible for practitioners leaving their positions were retirement, salary, and getting promoted to another job. Are there ways states can keep practitioners working longer to help ease the shortage? What else could be done to address the "graying of the field" issue? Next, why is salary such an issue and what can states begin to do to address this? Would a higher salary truly promote attraction and retention to the school psychology field? How do states go about

increasing salaries overall, but especially in rural areas? Clearly these are challenging questions.

One surprising result from this study was that promotion to another job was listed in the top three reasons for attrition. Past studies have actually revealed practitioner dissatisfaction with the opportunities for advancement in the school psychology field. In a study by Hosp and Reschly (2002) the results of a survey of 1,056 school psychologists suggested that overall school psychologists were dissatisfied with the potential for promotion in their jobs. The results from the current study, however, show that perhaps the perception that there is a lack of advancement in the field of school psychology is a misconception. This is positive in the fact that school psychologists need to know that there is the ability to advance in this field so they do not seek opportunities in other fields. On the other hand, if school psychologists are being advanced into supervisory/administrative positions and are not being replaced as they leave this could be viewed as problematic as it is contributing to the school psychology shortage. Once again, there needs to be a way to attract and fill the vacancies of the school psychologists that leave their positions.

Implications

Although interpretations of this data are limited there are specific implications of this study. If people want to make a change in the practitioner shortages in their states, they first must know (a) how many openings there are in their state, (b) where those openings are (in terms of setting) and (c) what specific factors in their states will need to be addressed to attract and retain school psychologists to these areas. Not all respondents

in this study were able to provide data because their state does not collect the data that was asked. One place for states to start would be to begin collecting data on where openings are in their states. Next, if certain factors are contributing to attrition in particular states (retirement, salary, promotion to other jobs, etc.) it would be important for representatives of states to consider these in their attempts to attract new practitioners to their states. In addition to attracting new practitioners, efforts must be made to retain the school psychologists that do fill positions. School psychologists are taught to make data based decisions. If states can begin to collect data that is needed to inform the areas where school psychologists are needed most they can begin to make changes in their attraction/retention strategies. Maybe then will school psychologists begin to see a change in the shortage trend that has been evident for so many years.

REFERENCES

- American Psychological Association. (2004). Accredited programs in school psychology. Retrieved on February 15, 2005 from the World Wide Web: <http://www.apa.org/ed/accreditation/schoolpsy.html>
- Beckmann, D., Kincaid, J., Swanson, A., & Tuffree, J. (2002). Schools scrounge for more psychologists. Retrieved October 29, 2004 from the World Wide Web: http://www.medillnewsdc.com/cgi-bin/ultimatebb.cgi?ubb=get_topic&f=35&t=000016.
- Boe, E., Bobbitt, S., & Cook, L. (1997). Whither didst thou go? Retention, reassignment, migration attrition of special and general education teachers from a national perspective. *The Journal of Special Education, 30*, 371-89.
- Boe, E., Bobbitt, S., Cook, L., Whitener, S., & Weber, A. (1997). Where didst thou go? Predictors of retention, transfer, and attrition of special and general education teachers from a national perspective. *The Journal of Special Education, 30*, 390-411.
- Boe, E., Cook, L., Bobbitt, S., & Terhanian, G. (1998). The shortage of fully certified teachers in special and general education. *Teacher Education and Special Education, 21*, 1-21.
- Curtis, M.J., Grier, J.E., Abshier, D.W., Sutton, N.T., & Hunley, S. (2002). School psychology: turning the corner into the twenty-first century. *NASP Communiqué, 30*.
- Curtis, M.J., Hunley, S.A., & Grier, J.E.C. (2004). The status of school psychology: Implications of a major personnel shortage. *Psychology in the Schools, 41*, 431-42.
- Curtis, M.J., Hunley, S.A., Walker, K.J., & Baker, A.C. (1999). Demographic characteristics and professional practices in school psychology. *School Psychology Review, 28*, 104-16.
- Dawson, P. (2002). *President's Letter, 29*. Retrieved October 29, 2004 from the World Wide Web: http://www.Ispaweb.org/en/Documents/wgr/wgrv29n1_txt.html
- Fagan, T. K. (2002). School psychology: Recent descriptions, continued expansion, and an ongoing paradox (special topic). *School Psychology Review, 31*.
- Fagan, T.K. (2004). School psychology's significant discrepancy: Historical perspectives on personnel shortages. *Psychology in the Schools, 41*, 419-30.

- Fagan T.K., & Wise, P.S. (2000). *School psychology: Past, present and future (second edition)*. Bethesda, MD: NASP Publications.
- Gersten, R., Keating, T., Yovanoff, P., & Harniss, M. (2001). Working in special education: factors that enhance special educators' intent to stay. *Exceptional Children, 67*, 549-67.
- Hosp, J.L. & Reschly, D.J. (2002). Regional differences in school psychology practice. *School Psychology Review, 31*, 11-29.
- Huebner, E.S., Gilligan, T.D., & Cobb, H. (2002). Best practices in prevention and managing stress and burnout. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology IV*, 173-181. Bethesda, MD: NASP Publications.
- Kruger, L.J., Maital, S.L., Macklem, G., Shriberg, D., Burgess, D.M., Kalinsky, R., et al. (2001). Sense of community among school psychologists on an internet site. *Professional Psychology: Research and Practice, 32*, 642-49.
- Little, S.G., & Akin-Little. (2004). Academic school psychologists: Addressing the shortage. *Psychology in the schools, 41*, 451-59.
- Lund, A.R., Reschly, D.J., & Martin, L.M. (1998). School psychology personnel needs: Correlates of current patterns and historical trends. *School Psychology Review, 27*, 106-20.
- Menlove, R., Garnes, L., & Salzberg, C. (2004). Why special educators leave and where they go. *Teacher Education and Special Education, 27*, 373-83.
- Miller, D., Brownell, M., & Smith, S. (1999). Factors that predict teachers staying in, leaving, or transferring from the special education classroom. *Exceptional Children, 65*, 201-18.
- Office of Special Education Programs. (1999). 21st annual report to congress on the implementation of the individuals with disabilities education act. Retrieved March 5, 2005 from the World Wide Web: <http://www.ed.gov/about/reports/annual/osep/1999/index.html>
- Pavri, S. (2004). General and special education teachers' preparation needs in providing social support: a needs assessment. *Teacher Education and Special Education, 27*, 433-43.

- Poland, S., Pitcher, G., & Lazarus, P. (2002). Best practices in crisis prevention and management. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology IV*, 1057-1079. Bethesda, MD: NASP Publications.
- Reschly, D.J. (2000). The present and future status of school psychology in the united states. *School Psychology Review*, 29, 507-22
- School psychologist shortage has impact. (2004). Retrieved October 29, 2004 from the World Wide Web: <http://cnn.fyi.printthis.clickability.com/pt/cpt?action=cpt&title=CNN.com+-+School+psy...>
- Sultana, Q. (1997, November). *Special education teachers' attrition in kentucky and its reasons*. Paper presented at the annual conference of the Mid-South Education Research Association, Tuscaloosa, AL.
- Tharinger, D.J. Palomares, R.S. (2004). An APA-informed perspective on the shortage of school psychologists: Welcome licensed psychologists into the school (and did we mention xeriscape gardening together?). *Psychology in the Schools*, 41, 461-72.
- Thomas, A. (2000). School psychology 2000. *NASP Communique*, 28.
- Williams, S., Wicherski, M., and Kohout, J. (2000). Salaries in psychology: report of the 1999 apa salary survey. Retrieved March 1, 2005 from the World Wide Web: <http://research.apa.org/99salaries.pdf>.

APPENDIX A
RESULTS TABLES

Table 1

Percentage of Representatives of States Responding by Region

Region	States	Percentage of Respondents from States by Region	Percentage of Respondents by Region with Partial/ Whole Survey Completed
New England	CT, ME, MA, NH, RI, VT	83	67
Mid Atlantic	NJ, NY, PA	33	33
South Atlantic	DE, DC, FL, GA, MD, NC, SC, VA, WV	33	33
East South Central	AL, KY, MS, TN	50	50
West South Central	AR, LA, OK, TX	75	25
East North Central	IL, IN, MI, OH, WI	80	60
West North Central	IA, KS, MN, MO, NE, ND, SD	71	57
Mountain	AZ, CO, ID, MT, NV, NM, UT, WY	38	38
Pacific	AK, CA, HI, OR, WA	80	40

Table 2

Number of School Psychology Practitioners and Vacant Positions, and Percentage of Vacant to Total Positions by State

State	Practitioners	Vacancies	Percentage
AK	*82.0	***	
AZ	*742.0	*75-100	9.0
CA	3884.0	63.0	2.0
CO	*720.0	*20.0	3.0
IA	359.0	*4.0	1.0
IL	1538.0	29.5	2.0
KS	**534.0	3.0	0.5
ME	42.0	***	
MN	619.56	6.0	1.0
MS	*40.0	***	
MD	*712.0	*4.0	*0.5
MO	**177.0	***	
NH	150.0	4.0	1.5
NM	352.0	***	
OH	2056.0	11.0	0.5
OK	179.0	***	
PA	*1000.0	***	
RI	296.0	***	
VT	*60.0	3.0	5
VA	708.0	***	
WV	107.5	6.0	5.0
WI	941.0	*20.0	2.0

*= Estimated data

** = Not indicated if actual or estimated data

*** = No data provided

Table 3

Percentages of Practitioners in Settings and Vacancies in Settings

State	Setting			Vacancies in Setting		
	Rural	Urban	Suburban	Rural	Urban	Suburban
AK	10	64	26	**	**	**
IA	*79	*7	*14	*100	*0	*0
MD	*8	*55	*37	**	**	**
MN	49	*19	32	70		30
MO	*15	*57	*28	**	**	**
NH	*33	*17	*50	25	25	50
OH	*33	*33	*33	*73	*9	*18
OK	9	37	54	**	**	**
PA	*20	*30	*50	**	**	**
RI	10	72	18	**	**	**
VT	*60	*20	*20	66	33	
WV	63	31	6	50	50	
WI	*40	*28	*30	*40	*35	*25

* = Estimated number

** = No data provided.

Table 4

Starting and Average Salaries by States

State	Beginning Salary	Average Salary
AK	56,776	47,680
CA	50,000	65,000
CO	40,000	*
IA	31,000	45,000
KS	34,811	45,554
ME	*	53,320
MD	*	73,117
MN	34,460	51,156
MS	38,000	44,000
NH	50,000	*
OH	*	55,188
OK	*	48,446
WV	30,000	42,000
WI	40,000	49,000

*=Indicates data was not provided

APPENDIX B

SURVEY

Thank you for participating in our study. We understand that your state may not collect all of the data we are requesting. If your state does not collect certain data please provide an estimation. For each item please indicate if the data provided is actual or estimated. Thank you again for your time.

Please indicate your job title: _____

1) What are the different levels of licensure or certification for school psychologists in your state?

Level	Considered fully certified?
1. _____	Yes or No
2. _____	Yes or No
3. _____	Yes or No
4. _____	Yes or No

2) How many qualified, fully certified school psychologist practitioners are currently working in the state? _____

Actual Estimated

2a) Of these certified practitioners, how many are:
 Full-time _____ Part-time _____

3) How many practitioners with conditional/provisional licensure are interns? _____

4) How many practicing school psychologists are not fully certified? _____

4a) Of the uncertified school psychologists, how many are:
 Full-time _____ Part-time _____

5) How many school psychologists in your state practice in each of these areas?

Rural areas _____ Urban _____ Suburban _____

6) How many school psychologist positions are currently unfilled in the state?

Full-time _____ Part-time _____

7) Of these unfilled school psychology positions, how many positions are in each of these areas?

Rural areas _____ Urban _____ Suburban _____

8) The new IDEA 2004 law states that the qualifications for related services personnel (i.e. school psychologists) are consistent with any State-approved or State-recognized certification, licensing, registration, or other comparable requirements that apply to the professional discipline in which those personnel are providing special education or related services. These qualifications ensure that related services personnel who deliver services in their discipline or profession meet the requirements of the clause and have not had certification or licensure requirements waived on an emergency, temporary, or provisional basis. Will your state lose school psychologists because of this new qualifications law?

Actual Estimated

Yes _____ No _____

9) What are the average salaries for school psychologists in the state:

Starting salary _____

Overall average salary _____

10) How many vacant school psychologist positions in your state are currently being filled with professionals from other disciplines? _____

11) Please check the entity that employs most of the school psychologists in your state.

() regional agencies

() collectives/coops

() districts

12) Listed below are possible reasons that school psychologists leave their positions. Please rank the reasons that you feel contribute to school psychologists leaving their positions with "1" being the primary contributor and each other contributor subsequently ranked.

() retirement

() spouse changing jobs

() salary

() promotion

() marriage/children/family

() changing careers

() illness

() isolation from other school psychologists

() lack of supervision

() other _____