EXAMINING THE DIFFERENCES IN ROLES AND FUNCTIONS OF SCHOOL PSYCHOLOGISTS AMONG COMMUNITY SETTINGS: RESULTS FROM A NATIONAL SURVEY

BY

JESSICA M. HUSSAR

A DISSERTATION SUBMITTED TO

THE FACULTY OF

ALFRED UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PSYCHOLOGY

IN

SCHOOL PSYCHOLOGY

COLLEGE OF PROFESSIONAL STUDIES

DIVISION OF COUNSELING AND SCHOOL PSYCHOLOGY

ALFRED, NEW YORK

DECEMBER 2015
EXAMINING THE DIFFERENCES IN ROLES AND FUNCTIONS OF SCHOOL PSYCHOLOGISTS AMONG COMMUNITY SETTINGS:

RESULTS FROM A NATIONAL SURVEY

JESSICA M. HUSSAR

UNIVERSITY AT ALBANY, B.A. (2007)

ALFRED UNIVERSITY, M.A. (2010)

ALFRED UNIVERSITY, C.A.S. (2011)

AUTHOR

__________ Jessica M. Hussar

APPROVED BY

__________ Jana Atlas, Ph.D.

Committee Co-Chairperson

__________ Hannah L. Young, Psy.D.

Committee Co-Chairperson

__________ Cris Lauback, Psy.D.

Committee Member

__________ Karen Porter, Ph.D.

Committee Member

ACCEPTED BY

__________ Mark Fugate, Ph.D.

Chairperson, Division of Counseling & School Psychology

__________ Nancy J. Evangelista, Ph.D.

Associate Provost & Director of Graduate Studies

Dean, College of Professional Studies

__________ W. Richard Stephens, Ph.D.

Provost & Vice President for Academic Affairs
Dedication

~ This life’s work – my magnum opus is dedicated to my parents, Jan and John, my brother, Jonathan, and my beau, David. Mom, you believed in me and my dreams from the age of two when I inquired about the meaning of paving markings on roadways. Thank you for being patient, encouraging, teaching me to be kind and empathetic, and above all else giving me unconditional love. Dad, I will always be your determined little girl. You taught me to have strength in the wake of adversity, you instilled in me the belief that I can change the world, and you empowered me to defend what is just and that in which I believe. Jonathan, my dear brother, growing up with you in the great wild woods of Pennsylvania was a grand adventure. We had many safari expeditions, competed in Olympic luge races, and constructed extraordinary structures to traverse waterways. You are a joy and gift to my life, your humor uplifts my spirit no matter the situation, and your creativity is an inspiration to me. David, my love, partner, and confidant thank you for entering my life during the most tumultuous period and being stalwart to my cause and recovery. You taught me the true meaning of love and devotion and without you this project would not be complete. ~
Acknowledgements

From a young age, I was interested in people: their motivations, feelings, and behaviors. Friends and family considered me a trusted confidante who would provide thoughtful advice about life, relationships, and organization. I suppose it is not surprising I am here today on the brink of becoming a legitimate member of the professional mental health community. Numerous experiences in my life have placed me on this path. So many people are deserving of appreciation and gratitude in the completion of this project and the development of my professional career as a school psychologist.

I have had countless mentors and supervisors throughout graduate school, and all have had a positive impact on me and have donated their time to guide my professional development. Dr. John Wolfgang, thank you for being the best school psychologist I have ever met and worked with. You are awesome. You inspired me daily during my specialist internship. Your positive attitude, mentoring, and focus on best practices are venerable. Without your example and encouragement, I would have never imagined I was good enough to apply to a doctoral program. Dr. Jason Hans, thank you for recognizing my potential and advocating for my position as doctoral intern in your school district. Your guidance and supervision through the administrative aspects of special education and school psychology has been invaluable to me.

Graduate school is a difficult journey filled with joy, excitement, rapid knowledge growth, long days, difficult work, and sometimes tears. I am immeasurably lucky to have studied at Alfred University with the close-knit, caring, intelligent, and thoughtful faculty of the School Psychology Program. First, thank you Dr. Lynn O’Connell and Dr. Mark Fugate for igniting my passion for Response to Intervention (RtI) and crafting my expertise on the topic
through the RtI Training Grant. That was an opportunity of a lifetime, and I loved every minute of it!

Dr. Ellen Faherty, you have given me so much more than mentorship, supervision, and numerous educational opportunities. You have opened your home to me, advocated for me, and shown compassion and empathy to me during the most difficult experience of my life. Simply, thank you for your amazing generosity, understanding, and for recruiting me into the doctoral program.

Dr. Edward Gaughan, although I was not exactly sure who you were for my first two years of graduate school, you became one of the most influential faculty members in my professional development. I am so appreciative of your insistence that I consider myself a psychologist first and that my working in schools does not wholly define me. I believe this has helped me develop into a versatile practitioner. My fellowship in the Leadership Grant was academically rigorous and a unique opportunity that I will carry with me the rest of my life. Thank you for recognizing in me skills and abilities that I was unaware existed.

To my dissertation committee, you all share in this achievement with the same excitement and pride that I do. Each of you has improved my project in small and big ways and for that, I am grateful. Each of you and your dedication, expertise, and creativity astound me. Dr. Hannah Young, I have enjoyed working with you for the past several years on various research projects and my dissertation. Your sense of humor, honesty, and organization created order out of chaos and was calming and consistent. I am honored to have you as my dissertation chairperson and that you agreed to continue in that role even after moving on to other professional opportunities. I greatly appreciate your commitment to my project and the considerable statistical knowledge that you brought to bear in assisting me with this project.
Dr. Jana Atlas, you have been the face of the Alfred University School Psychology Program to me since my first visit in my junior year of college. Your enthusiasm for the program and for the graduate students was the number one influence guiding my decision to become a part of the program. I appreciate all of the guidance and time you have spent on my professional growth and ensuring that my dissertation is of the highest quality as well as becoming co-chair of my committee.

Dr. Cris Lauback, I have cried and laughed many times in your office. You are always positive, provide logical advice, and inspire innovation and passion for the field. Thank you for sitting through all the tears with empathy and guiding me through the difficult world of graduate school and beyond. Your love of school psychology, the children we serve, and the graduate program is evident in your teaching and interactions. Thank you for making Alfred University special and for adding a wealth of practical knowledge to my committee.

Dr. Karen Porter, you are one of the most sincere people I have ever met. Your enthusiasm for my dissertation topic and membership on my committee is astonishing. You are an eternal academic. I am most appreciative of your knowledge about sociological factors and for your brilliant suggestion of using zip codes to standardize the definition of community setting.

I would also like to thank and acknowledge the support of the Lea R. Powell Children and Family Institute of Alfred University. The Institute provided grant funding for this project, without which this project would not have been possible.

Finally, I would be remiss if I did not acknowledge my friends, family, and other supporters who have added so much to the creation and completion of this project. To the Alfred Fire Department (A.E. Crandall Hook and Ladder Company) thank you first and foremost for
saving my life and for recovering my laptop and, incidentally, this dissertation project. Without your quick response and bravery there would be no words on this page.

Dr. John Jody Dempsey and Dr. Cheryl Scott-Richard, thank you for being skilled and thoughtful psychologists who have helped me regain myself and who have been by my side through my recovery. Without your support and therapy I would not be achieving my goals and fulfilling my dream. I look forward to joining you as a professional colleague, and I am hopeful that my impact on my clients is as meaningful as yours has been on me. To all of my friends throughout the years and my school psychologist colleagues, I appreciate all of your cheers of support.

Thank you to Curcio Printing in Vestal, NY for printing, assembling, and mass mailing my survey and for treating my project and its success as though it was a huge corporate account. A special thank you to Marilu Clark of the Binghamton, NY branch of the U.S. Post Office for guiding me through the business account process, for taking interest in my dissertation, and for helping me perfectly time the mailings to miss the holiday season.

Thank you to my parents for believing in me, valuing my education, and listening to all of my school psychology musings. My accomplishments are as much yours as they are mine. Jonathan, my brother, thank you for providing your graphic design expertise and for designing a beautiful survey that enhanced the quality of this project. Finally, but certainly not least, thank you David my love and partner for cheering me on daily, for supporting me through the tears and the good times, for becoming my research assistant, and for writing custom code for Excel that made the whole data collection and management process efficient and organized. Most of all thank you for your love.
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Abstract

A nationwide survey of school psychologists across the four NASP regions was conducted in order to discern if school psychologists’ community setting related to school psychologists’ role and function as well as job satisfaction. Community setting was operationalized using a zip code database to precisely define urban, suburban, and rural. Two thousand schools were sent surveys for distribution to school psychologists; 220 school psychologists participated. Respondents completed a researcher created survey called the Regional Role and Function Survey (RRFS) and the Minnesota Job Satisfaction Questionnaire – Short Form (MSQ – SF). The respondents answered questions pertaining to personal demographics, demographics about their workplace, their roles and functions as a school psychologist, and their job satisfaction. The findings indicated that school psychologists across community settings engage in assessment related to special education for the highest percentage of time out of all possible roles and functions. School psychologists in suburban community settings were more likely to engage in supervision and to have lower job satisfaction than school psychologists in all other community settings. School psychologists who were stationed in one school building or a K-12 campus were more likely to spend time in roles and functions other than special education assessment. The importance of school psychologist community setting is discussed; additionally the varying roles and functions of school psychologists, boundary-spanning, factors influencing job satisfaction, as well as methodology associated with rural research were explored.

Keywords: community setting, rural school psychology, role and function, job satisfaction, boundary-spanning
Chapter 1: Introduction

In the world of school psychology, little emphasis and consistent research has been devoted to understanding the qualitative and quantitative differences between the diverse community settings in which school psychologists practice. This has been especially true concerning the practice of rural school psychology. The history of rural school psychology started with the emergence of compulsory schooling in the United States and the Industrial Revolution (Fagan & Wise, 2007). The history and organization of the school system in America developed around the need for a more educated workforce.

During the 1800s and early 1900s, urban schools were reorganized to meet the needs of an undertrained workforce; this created school improvement initiatives that endorsed an urban-industrial model of education. The urban-industrial model was one where schooling and education of children were approached with a factory model. This model was very precise and resembled an assembly line or machine, which was a popular notion during this time because of its efficiency for producing products. This idea was manifested in the creation of centralized schools, which contained departments, grade levels, and standardization of learning and curriculum (Fagan, 2008; Fagan & Warden, 1996; Fagan & Wise, 2007; Merrell, Ervin, & Gimpel Peacock, 2012; Tyack, 1974).

The urban-industrial model was different than the one found in rural communities. In rural communities, schools were often multi-grade one-room schoolhouses that serviced all levels of ability within a shared learning community. Teachers were used to creating specialized learning experiences for diverse student needs, peer-learning was not uncommon, multi-level groupings of students was utilized, and teachers were extensively involved in problem-solving
During the industrial revolution, the urban-industrial model was used as the blueprint for urban schools. This model was imposed on rural schools along with rural school consolidation efforts, as bigger centralized schools and services were seen as more efficient and effective (Jacob-Timm, 1995). The prevailing attitude was that rural communities were in need of leadership from experts from the industrialized world, as it was impossible that rural schools and communities were properly preparing students to become effective and well-trained future workers.

According to the U.S. Bureau of the Census (1975), during the 1800 census there were 33 places considered to be urban territories in the United States and by the 1900 census there were 1,737 urban territories. During the 1890 census, the U.S. Bureau of the Census started to record the number of rural territories and at the time of the 1900 census there were 8,931 rural territories. Also measured by the census starting in 1880 were the numbers of people living in urban and rural territories. During the 1880 census, 13,184,902 people were living in an urban territory and 36,970,881 were living in a rural territory. During the 1900 census 30,533,411 people were living in an urban territory and 47,622,183 were residing in a rural territory (U.S. Bureau of the Census, 1975). Demographics of children in school were such that in 1900, 78% of children age five to seventeen were enrolled in school ("The 1900s: Education overview," 2001). It was not until the 1900s that expansion of cities created a rural-urban school divide (Reese, 2008).

As Reese (2008) pointed out, it was not until the 1900s that cities started to expand and an apparent rural-urban divide was noticed. That developing divide helped spark the creation of
school psychology positions in rural schools. One of the advantages of school psychologists entering rural schools later than urban schools was that rural school psychologists were in position to autonomously define their preferred role and function (Huebner, McLeskey, & Cummings, 1984). They had the ability to do this within the rural school context, learning from the entrance of urban school psychologists before them. This was due to the lack of school psychological, or more broadly, mental health and specialized educational services available in rural communities. Although rural issues were explored early in the 20th century, momentum to continue research in that area weakened as the industrialization of the United States continued. During the latter portion of the 20th century, interest in exploring rural issues in education and school psychology increased again.

Starting in the 1970s, the United States experienced a rural renaissance. At that time rural populations expanded rapidly and there was a reemergence of small scale production of goods called cottage industries (Helge, 1985). This reinvestment and resurgence of interest in rural areas also caught the attention of some researchers in school psychology. Researchers started to parse out the differences and similarities among rural, urban, and suburban school psychologists. This was achieved through exploration of role and function, pre-service training, characteristics unique to rural communities, perceptions of job satisfaction, and perceptions by the school and community of the usefulness of school psychological services (Benson, 1985; Hosp & Reschly, 2002; Hunley, 4/9/1998; Jacob-Timm, 1995; Reschly, Genshaft, & Binder, 1988; Reschly & Wilson, 1995; Smith, 1984; Smith, Clifford, Hesley, & Leifgren, 1992, March).

Even with this increased interest, few studies were conducted and many of these are now considered pilot studies. Additionally, many of the studies conducted during the 1980s and 1990s were lacking empirically rigorous design structures. Literature reviews since have
highlighted important inadequacies and considerations pertaining to the results of these studies; those inadequacies were limited or non-representative sample size, failure to operationally define rural, reliance on respondent self-report of employment setting, and conclusions based on generalizations rather than evidence (Curtis, Hunley, & Chesno Grier, 2002; Jacob-Timm, 1995; Ward, 2003).

The population continued to shift to living inside urban areas primarily. According to Mackun and Wilson (2011), the number of people in the United States living in an urban area (i.e., metropolitan or micropolitan area) as reported in the 2010 Census was 289,261,315 or 93.7% of the population. The number of people residing in a rural area (i.e., outside a metropolitan or micropolitan area) during the 2010 Census were 19,484,223 or 6.8% of the population. In addition, according to The Rural School and Community Trust’s 2011 – 2012 biannual report, 33% of all schools in the United States are rural, 20.2% of all students attend a rural school, and there are 9,628,501 rural students in the United States (Strange, Johnson, Showalter, & Klein, January 2012).

Initial Studies on Rural School Psychology

Hughes and Clark’s 1981 study on the differences between rural and urban school psychologists is considered one of the seminal explorations of the topic and highlights implications for training. Through the use of a survey containing five sections (i.e., demographic information, role diversity, role emphasis, continuing education, and job satisfaction), Hughes and Clark (1981) discovered important differences between urban and rural school psychologists. Rural school psychologists reported performing a wider range of services, being more involved in the community and systems-level service, and spending less time on assessment-related activities. Other important findings were that rural school psychologists reported being
professionally isolated, having fewer educational services available to them and their schools, and functioning in a generalist role more frequently than urban school psychologists did.

Throughout the remainder of the 1980s, the areas identified by Hughes and Clark (1981) as important factors in the practice of rural school psychology were further explored, as the roles of the rural school psychologist expanded and this led to redefined practice in rural schools. The proposed definitions and differences between rural and urban school psychologists were explained extensively in the literature, but the methods used to define and measure differences between the two groups lacked high quality methodological design. Thus, results from these studies could neither broadly generalize nor define the role and function of rural school psychologists with scientific precision.

Nevertheless, an area of particular importance to define and clarify was the distinction between a generalist model and a specialist model of service delivery. The generalist role endorsed at the time, as the typical model used by rural school psychologists, is one where the school psychologist performs many different roles and functions within the school system. Often these roles are ones that specialists (e.g., special education teachers, reading specialist teachers, mental health providers) would perform in larger urban districts (Ehly & Reimers, 1986; Huebner et al., 1984; Hughes & Clark, 1981; Reschly & Connolly, 1990). In the urban school setting, a school psychologist may have the opportunity to specialize in a certain area of interest or expertise rather than perform many different roles and functions that are the jobs of other specialized experts within the school system. Additionally, school psychologists in urban settings might be relegated to assessment only tasks and thus have a less diverse role (Hughes & Clark, 1981; Miranda & Olivo, II, 2008; Reschly & Connolly, 1990; Truscott & Truscott, 2005).
In an attempt to augment support for the findings that rural school psychologists engage more frequently in a generalist role than do their urban counterparts, *manning theory*, and *boundary-spanning functions* were explored. Manning theory comes from ecological psychology and Barker’s Behavior Setting Theory, which states that there is a relationship between the physical setting and the expected human behaviors unique to that environment (Barker, 1960, 1968; Perkins, 1982). Barker’s Behavior Setting Theory specifies *manning conditions* or manning theory which postulates that there is an optimal number of people needed in a setting performing specific jobs or exhibiting specific behavior for that setting to function at its most efficient level (Barker, 1960; Barker & Gump, 1964; Perkins, 1982). In Barker’s research, a setting that is lacking the appropriate number of staff was referred to as *undermanned*. In the current study, the term *understaffed* was used instead of *undermanned* for the purposes of using gender-neutral terminology and for clarity.

The presence and creation of the following conditions are noticed in an understaffed setting according to Perkins (1982, pp. 618–619): 1) greater effort to operate and maintain the setting, in terms of ‘harder’ work or longer hours; 2) performance of more difficult and more important tasks; 3) involvement in a greater diversity of tasks and roles; 4) less sensitivity to, and evaluation of, individual difference; 5) a lower level of maximal performance; 6) greater functional importance of individuals within the setting; 7) greater responsibility in the sense that the setting and the satisfaction it provides depend more on each occupant; 8) thinking of oneself and others more in terms of task-related functions and less in terms of personality characteristics; 9) lower standards and fewer tests of admission into the setting; 10) greater insecurity about one’s own performance and about the continued maintenance of the setting; 11) viewing oneself as more versatile – able to carry out satisfactorily a greater diversity of tasks; and 12) more
frequent occurrences of success and failure, depending on the outcome of the setting’s function and the individual’s evaluation of the setting’s importance. These conditions were found to exist in small member organization settings. In those understaffed settings, members were more often viewed as *performers* or those perceived as having more involvement, support, and obligation to the organization than did members of larger settings (Barker & Gump, 1964; Perkins, 1982).

Manning theory has been applied to school settings (Barker & Gump, 1964) and school psychology research (Huebner et al., 1984). In school psychology, manning theory has been explored as it relates to *understaffed settings* such as rural schools (Huebner et al., 1984). In rural schools, professionals must take on roles that are not typically associated with their practice and job description because of a lack of physical and human resources. The appropriate *staffing* or *understaffing* of the school setting is not exclusive to the role and function of school psychologist, as other specialists (such as special education teachers) within the school setting may take on additional roles not usually associated with their job. Taking on other roles not usually associated with one’s profession can usually be attributed to job vacancies which may not be filled and a lack of appropriate funding sources for certain professions (Huebner et al., 1984).

Additionally, Jerrell (1984) described rural school psychologists as engaging in boundary-spanning functions, which has a similar definition and philosophical underpinning as manning theory. Boundary-spanning functions are described by Jerrell (1984) as those that serve the needs, expectations, and demands of the environment and are not directly related to student or instructional needs. Essentially, as a school system becomes more saturated with increasing need and continues to maintain or lose staff, those employed in roles with flexible definitions (such as school psychologists) engage in more roles and functions not always associated with
their typical job functions. Those who are considered to be in boundary-spanning roles in school districts, such as school psychologists, have reported higher job satisfaction and perceived usefulness by administrators according to Jerrell (1984). An additional finding of that study was that district-bound rural school psychologists spent 10 to 15% of their time in activities that linked services between the school and the community.

Boundary-spanning functions and involvement increased as the services available in the community decreased. Due to school psychologists engaging in more boundary-spanning functions, school superintendents endorsed the usefulness and importance of the school psychologist providing additional services linking the community to school. Thus, school psychologists in boundary-spanning roles in rural school districts have been recognized by their administration and community as valuable in this role. Research on school psychologists in other community settings engaging in boundary-spanning roles or serving in understaffed settings has not been widely explored. Thus, it is unknown whether rural systems are unique and provide more opportunities for boundary-spanning or if boundary-spanning is a phenomenon that occurs in any setting in which a school psychologist works.

Summary

The school psychology literature as mentioned earlier is lacking information about how rural school psychologists actually function in schools. Although there is a great deal of informal observations about this topic that note differences in the practice of school psychology among community settings, there is little empirical support for these claims. To that end, there are even graduate programs that specifically state a focus on rural school psychology, such as the University of Colorado at Boulder and Alfred University in Western New York (Jacob-Timm, 1995). These programs profess to produce practitioners who are uniquely and specially trained
to address rural issues and function in rural schools. These assertions may not actually be misleading, but there is a lack of empirical support for community setting differences in practice. This suggests that these programs are most likely approaching rural-based practice through the lens of experience and observation rather than identified research-based practice differences. This indicates the need for quality methodology to determine actual differences in role and function rather than observational or anecdotal differences.

Those who study rural education have lamented the lack of sound methodology, low sample sizes, inadequate operational definitions of rural, overreliance on self-report measures for determining degree of ruralness, and research bias (Arnold, Biscoe, Farmer, Robertson, & Shapley, June 2007; Coburn et al., 2007; Coladarci, 2007; Cromartie & Bucholtz, 2008; DeYoung, 1987; DeYoung, 1991; Frisby & Reynolds, 2005; Howley, 1997; Johnson & Strange, 2005).

The current study attempted to address these criticisms through the empirical design. The roles and functions of rural school psychologists were explored as well as compared and contrasted to the roles and functions performed by school psychologists in other community settings.

The goal of the current study was to answer the following research questions:

a) What do school psychologists in different community settings spend their time doing and what is their level of job satisfaction?

b) Does school psychologist community setting, job assignment, or the school psychologist-to-student ratio relate to the percentage of time spent outside of special education assessment?
c) *Does community setting or the school psychologist-to-student ratio predict the number of roles in which the school psychologist engages?*

d) *Are there differences within the role and function of school psychologists who work in rural settings?*

e) *Does school psychologist community setting, number of roles in which they engage, percentage of time engaged in activities outside of special education assessment, or the ratio of school psychologist-to-students predict the level of satisfaction school psychologists perceive about their job?*
Chapter 2: Literature Review

Origins of School Psychology as a Profession

Generally, it is accepted that the profession of school psychologist came into formal existence in 1890 with the advent of compulsory schooling for children. In 1892 the American Psychological Association (APA) was formed. It was after the formal creation of APA that clinical psychology became a separate field and split off from school psychology (Fagan & Wise, 2007). In the quintessential primer text, School Psychology: Past, Present, and Future, which is considered the authority on the origins of the profession, Fagan and Wise (2007) detail two distinct eras in the evolution of School Psychology: the Hybrid Years (1890 – 1969) and the Thoroughbred Years (1970 – Present). These labels were chosen by Fagan and Wise (2007) as they felt those labels accurately described the events and circumstances of each era. The Hybrid Years were a mixing of professional psychological practice professions and there was no true school psychologist practice or practitioners at that point. During the Thoroughbred Years, school psychology came into its own as a profession and group of practitioners and thus was seen as a pure form of the new profession.

The Hybrid Years (1890 – 1969). School psychology emerged as a profession because of the movement toward compulsory schooling. Compulsory schooling was an outgrowth of the new view society had of children as saviors of society, a growing need for mental health and evaluative services, the growing populations of children filtering through the juvenile court system, and the creation of child labor laws (Fagan, 2008; Fagan & Warden, 1996; Fagan & Wise, 2007). Schools during the early years were populated with children who were considered normal. Schools did not have to provide an education to the children considered handicapped; high enrollments of the impaired persisted in schools despite their exclusion.
Often, children with special needs were removed from the public school setting and were educated in *specialized schools*. As a result of this climate, the profession of school psychology came into existence (Fagan & Wise, 2007).

School psychology was first found in an emerging department in schools called *Pupil Personnel Services* and in child clinics. It was through Pupil Personnel Services that school psychologists provided evaluation services, mental health services, and intervention services to children. It should be noted that during the Hybrid Years the school psychologist’s primary role was one of evaluator, with little emphasis on other areas of psychological practice. School psychologists were typically employing behavioral principles and predictive ability tests at the time (Fagan, 2008; Fagan & Warden, 1996; Fagan & Wise, 2007; Merrell et al., 2012). The translation of the Binet Intelligence test into English (Stanford-Binet) and the creation of the Army Alpha and Army Beta tests popularized aptitude assessment in the United States. That popularization placed school psychologists squarely in the evaluator role as their primary function (Fagan, 2008; Fagan & Wise, 2007; Merrell et al., 2012). Late in the Hybrid Years, school psychology had its first conferences to discuss the future of the field, the Thayer Conference and the Peabody Conference.

**The Thoroughbred Years (1970 – Present).** By the end of the Hybrid Years, school psychology started to establish itself as a legitimate, powerful, and respected profession. School psychology started to gain the classic hallmarks of a profession such as organization and association, an unique body of research and knowledge, a professional code of conduct, specialized training, and regulation and credentialing (Fagan, 2008; Fagan & Wise, 2007; Merrell et al., 2012). It was also during the Thoroughbred Years that a shortage in school
psychological services was noticed, especially in urban and rural areas (Curtis, Hunley, & Grier, 2004; Fagan & Wise, 2007; Lund, Reschly, & Martin, 1998).

A key force driving the evolution of school psychology during the Thoroughbred Years was the passing of laws relating to education, special education, people with disabilities, and children with disabilities. The litigious nature of the time drove policy creation and reform in education that initially brought school psychology into existence. Because of this, school psychology was initially enmeshed with special education. School psychologists were seen as gatekeepers to specialized services in schools (Fagan, 2008; Fagan & Wise, 2007; Merrell et al., 2012). The inception of the National Association of School Psychologists (NASP) occurred during the 1970s, and membership in the association grew rapidly.

It was also at that time that NASP and APA fought for control and regulation of the field; the battle for school psychology has resulted in differing accrediting and credentialing bodies having control over school psychological practice (Fagan, 1994; Fagan & Warden, 1996; Reschly, 2000). As school psychology continued to assert itself as a strong positive force in schools, the field started to shift to a focus on intervention, prevention, mental health initiatives, consultation, and collaboration. And at the same time the field moved away from the special education gatekeeper and assessor roles (Bramlett, Murphy, Johnson, Wallingsford, & Hall, 2002; Curtis, Grier, Abshier, Sutton, & Hunley, 2002; Fagan, 1986; Fagan & Wise, 2007; Merrell et al., 2012; Noltemeyer & McLaughlin, 2011; Reschly, 2008).

**Urban and Suburban School Psychology**

Just as rural school psychology as a topic of study has had little research emphasis in the past, so have urban and suburban school psychology. Urban and suburban school psychology have been the topics of choice for various research projects, but very little research has been
conducted specifically looking at role and function differences of urban, suburban, and rural school psychologists. There has been more research devoted to role and function of rural school psychology and rural practices versus urban practices as evidenced in this review of the literature. There has not been as much research focused solely on role and function of urban and suburban school psychologists. In fact, only five articles could be located on this topic, and none addressed suburban school psychology. Of the five articles located, only one was a large-scale methodologically sound study (Stoiber & Vanderwood, 2008). One was an overview of urban school psychology provided in a chapter of Best Practices in School Psychology V (Miranda & Olivo, II, 2008). One was a chapter on rural and urban issues (Truscott & Truscott, 2005). The last two focused on the qualitative experiences of one or a small group of urban school psychologists (Eithel, Lamberth, & Hyman, 1984; Fairchild, 1974). A dearth of literature on the topic of urban and suburban school psychological practice exists in the field, facilitating difficulty in mapping differences between urban, suburban, and rural school psychological practice.

The term urban first appeared as a descriptor of cities after World War II (Truscott & Truscott, 2005). According to Miranda and Olivo, II (2008) there is a shortage of school psychologists trained to work exclusively in urban settings. They also admit there has been very little research emphasis on this topic although there has been a great deal of research on urban schools. Miranda and Olivo, II (2008) assert that school psychologists working in urban settings need to be highly skilled and have a deep understanding of the unique needs of an urban population and student base. The role and function observed by Miranda and Olivo, II (2008) is that of special education assessor. Because of the large number of students that urban school psychologists serve, their role is highly specific and limited.
Stoiber and Vanderwood (2008) explored this topic in more depth. They surveyed 86 school psychologists in an urban setting who were matched in demographics to the 1999 NASP membership year. The survey asked participants to rate their average use of a specified role and their perception of how much emphasis that role should have. The number one role that most of the practitioners engaged in was special education assessment, but the participants rated collaboration, consultation, and prevention as the roles that should be emphasized and utilized more often within the urban setting. Stoiber and Vanderwood (2008) mention the high concentration of poverty, non-white population, and lack of resources and staffing as major barriers to urban school psychologists breaking out of the assessment only role. This means that those students are more likely than their more affluent or white counterparts to be referred for special education assessment as they do not fit the typical conventions of a white-focused school (Stoiber & Vanderwood, 2008).

**Demographic Characteristics and Professional Practices**

Starting in 1989, the National Association of School Psychologists (NASP) established a policy mandating that a national survey of the field be conducted every five years. The purpose of the survey is to gain a comprehensive description of the field across the United States and analyze changes in the field over time (Curtis, Castillo, & Gelley, 2012). Before that time, there was no formal procedure or policy in place to explore and disseminate information about trends in the field to the greater school psychology community. Rather, the school psychological community conducted studies of the topic on a smaller scale, often utilizing convenience samples specific to a certain geographic location (e.g., Meacham & Peckham, 1978). These studies also generalized their findings to the entire field of school psychology even though their samples
were limited. This has been a general criticism of the initial studies on this topic before NASP instituted the mandatory survey of the field policy in 1989 (Lewis, Truscott, & Volker, 2008).

The first study collected data during the 1989 – 1990 school year (Garden & Curtis, 1991, September), and the data collected was presented as a lecture to the Delegate Assembly of the National Association of School Psychologists as reported by Curtis, and Castillo et al. (2012). Subsequent studies followed in 1994 – 1995 (Curtis, Hunley, Walker, & Baker, 1999); 1999 – 2000 (Curtis, Grier et al., 2002); 2004 – 2005 (Curtis et al., 2008; Curtis et al., 2004) and the most recent study completed during the 2009 – 2010 school year (Castillo, Curtis, & Gelley, 2012; Castillo et al., 2012; Curtis, Castillo et al., 2012; Curtis, March, Castillo, Stockslager, & Gelley, 2012, February). These studies are of integral importance for the current study, as they provide a base for understanding trends in the field and indicate how school psychologists define themselves and their professional responsibilities. Although the current study focused on demographics through the lens of defining rural, suburban, and urban, these previous studies provided a guiding light in terms of methodology, typical roles, and functions that were included.

**NASP 1994 – 1995 survey of the field.** Although the first survey of the field was not formally published as an article, the second survey of the field (Curtis, Hunley et al., 1999) was published and provides a model for the structure, use, and reporting of the data collected. The survey was disseminated to 20% of the NASP regular members who were randomly selected; the response rate was 74% with 2,598 surveys mailed and 1,922 returned. During the 1994 – 1995 school year, 70% of school psychologists were female and most were Caucasian with a third of the sample having 15 or more years of experience as a school psychologist. In addition, 70% were at least 40 years old. Further, 79% of the sample held a specialist degree in school psychology. Curtis, and Hunley et al. (1999) reported that the majority of the school
psychologists surveyed were practitioners in a suburban setting (44.8%), 30.3% were in an urban setting, and the remaining 24.9% reported being in a rural setting. The ratio of school psychologists to students at the time was 1:1,500.

During the 1994 – 1995 school year, school psychologists spent the majority of their time (70%) completing evaluations for special education, with 25.7% of those surveyed completing 50 or more evaluations. Only 29.8% completed 25 or fewer evaluations. Of those surveyed, 25.6% reported serving 50 or more students through consultation and 34% provided individual counseling to ten or more students. School psychologists spent much less of their time engaging in providing group counseling, with 46.5% reporting not providing this service. Interestingly, 22.2% of school psychologists reported conducting no in-service trainings for parents, teachers, or other professionals. It is evident that during the 1994 – 1995 school year, school psychologist involvement in special education evaluation was still the primary role across all settings.

**NASP 1999 – 2000 survey of the field.** The third survey of the field (Curtis et al., 2002), conducted during the 1999 – 2000 school year, yielded a similar response rate as the 1994 – 1995 survey of the field (74%), with 20% of the NASP membership surveyed. Demographics related to sex, years of experience, age, and levels of educational preparation were similar to the 1994 – 1995 survey of the field. Another trend to note is that in the 1999 – 2000 school year, female school psychologists still reported salaries that were significantly less than their male counterparts. In terms of roles in which school psychologists engaged, Curtis et al. (2002) found that school psychologists who possessed higher levels of training had more experience in the field, worked under conditions where there was a lower school psychologist-to-student ratio, and engaged in more consultation, individual and group counseling, and the provision of in-service training programs. In general, it was also reported in this survey that school psychologists who
worked in environments where the school psychologist-to-student ratio was lower engaged in less special education evaluation and other related special education tasks. The survey methods used for this study were a shift from how data on roles and functions were reported in the 1994 – 1995 survey of the field. Even though a pattern of less involvement in special education assessment continued to emerge, the primary activity of school psychologists was still focused on special education evaluation.

Curtis et al. (2002) focused their data analysis on comparing school psychologists in different community settings; their survey was more focused on the practice of rural, urban, and suburban school psychology than any prior survey of the field. An interesting finding, that appears to be in contrast to previous surveys of rural school psychologists, is that this survey found that students were more likely to be served through consultation in urban and suburban settings than in rural settings. In rural settings, students were more likely to be served through the special education evaluation process. Another interesting finding was that practitioners in rural settings reported having less school psychological experience than urban and suburban practitioners. In addition, school psychologists in rural settings reported less involvement in systems change to the extent to which previous studies (Beebe-Frankenberger, 2008; Ehly, 1982; Ehly & Reimers, 1986; Fagan & Hughes, 1985; Helge, 1985; Huebner et al., 1984; Hughes & Clark, 1981; Hughes & Fagan, 1985; Jacob-Timm, 1995; Jerrell, 1984; Kramer & Peters, 1985; McLeskey, Huebner, & Cummings, 1984; McLeskey, Waldron, Cummings, & Huebner, 1988; Reschly & Connolly, 1990) reported during the past 20 years. It appears that the institution of the IDEA Amendments of 1997 had a major impact on the practice of school psychology especially in underserved areas. Thus, it is logical that school psychologists in rural
settings were in the necessary position to engage in more special education evaluation responsibilities.

**NASP 2004 – 2005 survey of the field.** The 2004 – 2005 survey of the field (Curtis et al., 2008; Curtis et al., 2004) found that just as in the previous surveys of the field, school psychologists continued to be primarily Caucasian, female, with specialist level training, and employed in school settings. Also as previously found, school psychologists tended to be older, with many years of experience, and there was concern that the field was aging faster than the replacement rate. School psychologist-to-student ratios in the 2004 – 2005 school years showed improvement, with 36% having a 1:1,000 ratio in their school setting. It was shown previously that lower school psychologists-to-student ratios resulted in more diversified roles. In previous surveys of the field, the focus was on describing demographics of school psychologists and their associated roles and functions. This incarnation of that line of research did not focus on roles and functions; instead, the focus was on the shortage of school psychologists based on the aging workforce. Thus, a discussion of current roles and functions was not included.

**NASP 2009 - 2010 survey of the field.** As previously discussed, the initial surveys of the field starting in 1989 indicated that the field was more evenly split between men and women, most practitioners were Caucasian, held a specialist level degree, and had state credentials (Curtis, Hunley et al., 1999). Before 1989, the profession of school psychology was not as established and there was greater variation of the aforementioned variables. It is thought that with the creation of NASP and increasing professional standards for school psychologists that the field has since leveled, and it is rare to see great variations in training standards and typical roles (Curtis, Hunley et al., 2002; Curtis, Hunley et al., 1999).
The NASP 2010 survey found that most practitioners were employed in a public school setting (83.7%), the mean ratio of school psychologists to students continued to decrease since 1989 (1: >2,000), with the current ratio being 1:1,383, the field was more than 70% women at all levels of practice except for university settings, and the field continued to remain predominately Caucasian (90.7%) with little ethnic minority representation (Curtis, Castillo et al., 2012).

Survey Methodology and Response Rates

According to a study conducted by Lewis et al. (2008), the initial survey of the field studies, prior to the NASP 1989 mandate, showed dramatic differences and changes in the field. Studies conducted prior to 1989 had lower response rates, found school psychologists spent a majority of their time in assessment-related activities, and that women made up 50% of the practitioners in the field. By 1989, this changed drastically with the NASP surveys boosting response rates close to 74% and showing more time spent in consultation and direct intervention, with women making up 70% of the field. NASP surveys have typically been a paper version mailed to a NASP member, but the 2010 survey utilized both mailed and electronic surveys, with a smaller portion of the surveys being electronic due to weaker response rates (Curtis, Castillo et al., 2012). Methods other than a paper mailed survey have yielded only modest response rates (42%), indicating paper mailed surveys are still the most viable option for sampling the field (Castillo et al., 2012).

Criticisms of the NASP-conducted surveys are that they sample only NASP members, so results from these studies represent those who choose NASP membership. Although this is a plausible criticism, according to Curtis, and Hunley et al. (1999), 70% of school psychologists are NASP members; this is considered very high membership for a professional organization. Reasons for such high membership could be the specialist-level orientation of graduate
programs, school psychology having only one professional organization for specialist-level school psychologists, attractive benefits of holding NASP membership, and high levels of professional identity. Because membership in NASP is so high, there is greater generalizability and validity of survey results of the field through NASP membership than other professional organizations have achieved.

**NASP member studies vs. non-NASP member studies**

In an attempt to rectify the issue of survey methods sampling NASP members only, Lewis et al. (2008) conducted phone surveys of non-NASP members by randomly selecting school districts across the United States. Then, these districts were placed in the stratified NASP regions to ensure a representative national sample. In general, the results of the Lewis et al. (2008) study found that NASP-conducted membership studies and non-NASP membership studies yielded similar results, that NASP membership studies are representative of the field, and statistically significant differences for the year in which the study was conducted are not present between the two groups. The authors maintain that non-NASP studies do increase the validity of the NASP study results and non-NASP members should be considered for inclusion in future studies. It is important to note that feasibility has a significant role in whether non-NASP members are included; it appears more economical to conduct NASP member surveys of the field. Even so, the opinions of non-NASP members are important and this study tackled this limitation by surveying both NASP and non-NASP members though the use of geographical cluster sampling.

**Job Satisfaction and School Psychologists**

Job satisfaction is defined by VanVoorhis and Levinson (2006) in their meta-analysis of *Job Satisfaction Among School Psychologists* as the degree to which people like their jobs and
how they feel about various aspects of their jobs. Job satisfaction is an important topic that has been explored in many varying professional fields such as education, business, human services, and medicine. It is important because it helps professionals understand what factors contribute to increasing efficiency, effectiveness, and overall good feelings about their work. This is therefore very important when considering the role and function of school psychologists in general, but also in differing community settings. It makes sense that different community settings may provide opportunities for more or less job satisfaction, which could affect how effectively and efficiently school psychologists perform their job. Overall, good feelings about the job could also have an effect on job performance by way of satisfaction.

VanVoorhis and Levinson (2006) conducted a meta-analysis of eight separate studies published between 1982 and 1999. All of these studies utilized the modified Minnesota Satisfaction Questionnaire (m-MSQ), had similar theoretical orientations (i.e., Minnesota Theory of Work Adjustment) and research procedures, and included 2,116 participants, of which over 70% were NASP members. The Minnesota Satisfaction Questionnaire was modified by Anderson (1983) to make the wording of several questions congruent with terminology used in school psychology and eliminated the neutral response option; this new version of the survey was named the modified-Minnesota Satisfaction Questionnaire (m-MSQ). Through their meta-analysis, they found that the majority of school psychologists were satisfied or very satisfied with their job (nearly 85%) and school psychologists were satisfied with most facets of their job except for the questions school system policies and opportunities for advancement. In general school psychologists who were members of a national or state professional organization had higher degrees of job satisfaction and school psychologists who had an expanded role had higher degrees of job satisfaction (VanVoorhis & Levinson, 2006).
Another important element of job satisfaction for school psychologists is effectiveness, or as Proctor and Steadman (2003) specify, perceived effectiveness. They go on to further specify that effectiveness of the school psychologist is influenced by who is perceiving the school psychologist’s effectiveness – the school psychologist him or herself, a general education teacher, special education teacher, an administrator, or a parent. Proctor and Steadman (2003) describe school psychologists with more diversified roles and functions within a school as having higher job satisfaction ratings, less burnout, and to be perceived as more effective by invested stakeholders such as administrators, teachers, and parents. Of particular interest to Proctor and Steadman in their 2003 study titled *Job Satisfaction, Burnout, and Perceived Effectiveness of “In-house” Versus Traditional School Psychologists* were the factors associated with the number of buildings school psychologists serve and their perceived level of satisfaction, burnout, and effectiveness. They hypothesized that school psychologists who were stationed in one building (*in-house*) would have higher self-perceived ratings of job satisfaction and effectiveness and lower rates of burnout than school psychologists who serve multiple buildings (*traditional role*).

In fact, the results of the study confirmed the hypothesis presented and provide support that school psychologists may be able to better serve schools when they are incorporated into a school building as an integral part of the staff. For example, the following questions indicate the importance of a school psychologist being assigned to only one building in a school district: *I can make my job more diverse if I want* yielded a mean rating of 4.3 (agree on the 5-point Likert Scale) for the *in-house* school psychologists and a mean rating of 2.5 (disagree on the 5-point Likert Scale) for the *traditional* school psychologists; *I am satisfied with the role diversity my position provides* (4.7 mean rating for *in-house* and 3.6 mean rating for *traditional* school
psychologists); and *My caseload is manageable* (4.0 for *in-house* and 2.8 for *traditional* school psychologists). The authors postulate that school psychologists who are housed in one building are more able to engage in a variety of roles and functions thus allowing them to complete work in a more efficient and effective manner and increasing perceptions of effectiveness and job satisfaction.

Although effectiveness is discussed here, it is through the context of job satisfaction. In the studies exploring effectiveness of school psychologists, it was as a component of job satisfaction. In those studies effectiveness was assumed if the school psychologist had a high degree of job satisfaction and were perceived by interested others in the school as effective. Because effectiveness has not been explored extensively in the field and specific effectiveness measures are not widely available, the current study did not explore the topic of job effectiveness; only job satisfaction was studied further.

**Defining Rural**

As mentioned previously, defining *rural* accurately and with depth is something previous research has not effectively addressed. Coladarci (2007) laments this point in his editorial essay in the *Journal of Research in Rural Education*. He suggests in order for rural research to yield high quality results, researchers must first select a definition that fits the type of research and hypothesis the researcher is addressing. Further, there is no one correct definition of rural. The more important aspect is to select a definition, operationalize that definition, and apply that definition consistently throughout a research project (Coburn et al., 2007; Coladarci, 2007; Isserman, 2005; Rural Assistance Center, 2012). It is important to select an appropriate definition based on the goals of the project because how rural is defined has a substantial impact on current and future research conclusions and recommendations, public policy creation – in
schools and other public domains, and matters of finance and resource allocation (Arnold et al., June 2007; Coladarci, 2007; Isserman, 2005).

Another cautionary note is to avoid defining rural as not urban. Within the rural research literature, a common pitfall of researchers, policy makers, public interest groups, and others is to define rural as anything that is not urban; this can and usually does include suburban areas that are often very close in distance to urban areas or centers (Arnold et al., June 2007; Coladarci, 2007). Defining rural as anything that is not urban is not only inaccurate but a troublesome definition because it lacks depth, delineation, specification, clarity, and an understanding of the vast diversity of areas. It is clear then that selecting an accurate definition of rural is a highly important part of successfully researching the topic and producing quality outcomes and recommendations.

**Definitions of rural.** A simple internet search for definitions of rural using the popular search engine Google will yield over 46,000,000 results. Although many of Google’s suggested pages may have a tenuous at best connection to defining rural, this example dramatically illustrates the point that there are numerous if not hundreds of ways to define rural depending on one’s purpose. With so many ways to define rural, the best way to find a definition that is acceptable to the research community is to follow the literature and suggestions of experts in the field. Coladarci (2007) suggests carefully examining the current and most used definitions globally, in your specific field of study, and in other fields.

**Six definitions of rural.** Arnold et al.’s June 2007 document *How the government defines rural*...provided a clear list of the most commonly used definitions or classification systems for defining rural and urban areas in public education. Their list consisted of six definitions or classification systems: 1) *U.S. Census Bureau classifications*, 2) *Metropolitan*

In addition, the most commonly cited definitions come from three government agencies that use one or more of the above classification systems when defining rural: 1) U.S. Census Bureau, 2) Office of Management and Budget, and 3) United States Department of Agriculture (USDA). Each of these government agencies has a different purpose or need when defining rural, so no definition is wholly satisfactory or all-inclusive. There are many more government agencies that have definitions of rural. These other agencies base their definitions off of the three primary government definitions, so although these other definitions exist, their importance is situation specific (e.g., U.S. Department of Housing and Urban Development or HUD) and may not be useful to explore further than noting their existence (Ricketts, Johnson-Webb, & Taylor, 1998).

1) U.S. Census Bureau classifications. The U.S. Census Bureau (4/1/2013) defines rural by using geographic features, population statistics, and residential features. Their definitions of rural and urban for the 2010 census are further defined here. Rural is “…all territory, persons, and housing units not defined as urban” (Bureau et al., 4/1/2013). Urban is defined as “all territory, population, and housing units located within an urbanized area (UA) or an urban cluster (UC).” UA and UC boundaries encompass densely settled territory, which consists of core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile.

2) Metropolitan status codes. These codes were first developed by the Bureau of the Budget which was the predecessor to the Office of Management and Budget (Arnold et al., June
A school district’s metropolitan status is determined by the location of the superintendent’s office in relation to a core-based statistical area (CBSA). CBSA is a collective term for both micropolitan and metropolitan areas ("2010 standards for delineating metropolitan and micropolitan statistical areas," 2010).

The Office of Management and Budget defines a metro area as “…a core urban area of 50,000 or more population, and a micro area contains an urban core of at least 10,000 (but less than 50,000) population” and “each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core” (Bureau et al., 4/1/2013). These metropolitan status codes classify school districts into three categories: 1) Central city of a CBSA, 2) Located in a CBSA but not in a central city, and 3) Not located in a CBSA (Arnold et al., June 2007, Miller, 2006a, 2006b).

3) Urban-rural continuum codes. Urban-rural continuum codes are part of a three-classification system developed by the U.S. Department of Agriculture’s Economic Research Service. They were created specifically to allow for more precise descriptions and analysis of county-level rural and urban differences. These codes are sometimes referred to as Beale codes. Nonmetropolitan counties are differentiated by the degree to which they are urbanized and whether they border a metropolitan area ("USDA ERS - Rural Classifications," 2013; Arnold et al., June 2007). Metropolitan counties have three codes: 1) County in a metropolitan area with 1 million population or more, 2) County in a metropolitan area of 250,000 to 1 million population, and 3) County in a metropolitan area of fewer than 250,000 population ("USDA ERS - Rural Classifications," 2013; Arnold et al., June 2007).
Nonmetropolitan counties have six codes which are:

1) Urban population of 20,000 or more, adjacent to a metropolitan area,
2) Urban population of 20,000 or more, not adjacent to a metropolitan area,
3) Urban population of 2,500 – 19,999, adjacent to a metropolitan area,
4) Urban population of 2,500-19,999, not adjacent to a metropolitan area,
5) Completely rural or less than 2,500 urban population, adjacent to metropolitan area, and
6) Completely rural or less than 2,500 urban population, not adjacent to metropolitan area ("USDA ERS - Rural Classifications," 2013; Arnold et al., June 2007).

4) **Metro-centric locale codes.** Metro-centric locale codes were developed in the 1980s by the National Center for Education Statistics (NCES) to identify schools and districts relative to populous areas (Arnold et al., June 2007; National Center for Education Statistics, 2007a, 2006a, 2006b). These codes are used mostly to identify schools and districts for sampling and statistical procedures and have not often been used to target populations for federal programs (Arnold et al., June 2007). Metro-centric locale codes are based on a school’s location.

The metro-centric locale codes are:

1) **Large city:** A central city of a CBSA or consolidated statistical area (CSA), with a population of 250,000 or more,
2) **Midsize city:** A central city of a CBSA or CSA, with a population of less than 250,000,
3) **Urban fringe of a large city:** Any incorporated place, Census-designated place, or non-place territory within a CBSA or CSA of a large city and defined as urban by the Census Bureau,
4) **Urban fringe of a midsize city:** Any incorporated place, Census-designated place, or non-place territory within a CBSA or CSA of a midsize city and defined as urban by the Census Bureau,
5) **Large town:** An incorporated place or Census-designated place with a population of 25,000 or more and located outside a CBSA or CSA,
6) **Small town:** An incorporated place or Census-designated place with a population of less than 25,000 and greater than or equal to 2,500 and located outside a CBSA.
or CSA. 7) Rural outside CBSA: Any incorporated place, Census-designated place, or non-place territory not within a CBSA or CSA of a large or midsize city and defined as rural by the Census Bureau, and 8) Rural inside CBSA: Any incorporated place, Census-designated place, or non-place territory within a CBSA or CSA of a large or midsize city and defined as rural by the Census Bureau (Arnold et al., June 2007; National Center for Education Statistics, 2006b).

5) Urban-centric locale codes. Urban-centric locale codes were developed in 2006 by the U.S. Census Bureau and the NCES. This system is used to classify schools into four major types based on their location in relation to urban areas, and the following classifications are used: city, suburban, town, and rural. Schools which are located in towns and rural areas are further classified by their distance from urbanized areas or an urban cluster and schools in the city and suburban categories are broken down by size: small, midsize, and large (Arnold et al., June 2007). This code system was developed to improve the precision and reliability of locale codes but does not replace metro-centric codes and provides provisions for classification of schools or districts that are within multiple locales (National Center for Education Statistics, 2006a).

The urban-centric locale codes are as follows: 1) City, large: Territory inside an urbanized area and inside a principal city with a population of 250,000 or more, 2) City, midsize: Territory inside an urbanized areas and inside a principal city with a population of fewer than 250,000 and greater than or equal to 100,000, 3) City, small: Territory inside an urbanized area and inside a principal city with a population of fewer than 100,000, 4) Suburb, large: Territory outside a principal city and inside an urbanized area with a population of 250,000 or more, 5) Suburb, midsize: territory outside a principal city and inside an urbanized area with a population of fewer than 250,000 and greater than or equal to 100,000, 6) Suburb, small: Territory outside a principal city and inside an urbanized area with a population of fewer
than 100,000, 7) Town, fringe: Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area, 8) Town, distant: Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area, 9) Town, remote: Territory inside an urban cluster than is more than 35 miles from an urbanized area, 10) Rural, fringe: Census-defined rural territory that is less than or equal to 5 miles from an urbanized area as well as a territory that is less than or equal to 2.5 miles from and urban cluster, 11) Rural, distant: Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area as well as a territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster, and 12) Rural, remote: Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster (Arnold et al., June 2007; National Center for Education Statistics, 2006b).

6) Core-based statistical areas. These are statistically defined geographic areas as defined by the NCES and the school district’s CBSA. A rural district that is located outside of a CBSA is coded as 00000 (Arnold et al., June 2007). A CBSA contains the following: “at least one urban area of 10,000 or more population. Each metropolitan statistical area must have at least one urbanized area of 50,000 or more inhabitants. Each micropolitan statistical area must have at least one urban cluster of at least 10,000 but less than 50,000 population…Counties or equivalent entities from the geographic building blocks for metropolitan and micropolitan statistical areas throughout the United States and Puerto Rico” (National Center for Education Statistics, 2007a).

**Great Data: A zip code data base.** None of the six definitions presented is wholly satisfactory for defining rural, urban, and suburban for the current study. This is because many of the definitions above are used by government agencies to allocate resources, describe
geographical features, count numbers of people, etc. These definitions are not meant to describe people, how they live, and why they live in a certain community settings. In addition, these definitions lack the ability to describe the personal nature of living in a location. As such, the idea of combining features of the six definitions presented, appeared as the most appropriate solution to define community setting for this study.

Because of that decision the zip code database *Rural-Suburban-Urban Data* created by the company *Great Data* (http://greatdata.com/rural-urban-data) was used in this study to measure and operationalize *rural, suburban, and urban*. *Great Data* uses a mixture of U.S. Census definitions for rural and urban (there is no definition of suburban), U.S. Department of Defense definitions of rural, urban, and suburban, and the U.S. Department of Agriculture’s (USDA) definition of rural. Through combining these definitions, *Great Data* has been able to develop a definition of rural that is more inclusive than exclusive and thus provides a more accurate representation of ruralness in America.

*Great Data* uses the following procedure for defining rural, urban, and suburban: each valid zip code for the U.S. is included in the data base except for military and South Pacific territories; zip codes without assigned populations, such as exclusive P.O. Boxes are assigned to the population surrounding that zip code; the latest (2010) U.S. Census population data for zip codes, including population density (population per square mile) is used; zip codes with their center in a rural area as defined by the United States Department of Agriculture (USDA) are considered rural; the population for a city or town a zip code is in is calculated and included in the parameters to define an area by finding the nearest Metropolitan area (cities or town with over 50,000 people) to that particular zip code and based on distance and area size; the zip code is considered Urban if the population density is at least 2,500 people per square mile and the
nearest metro area is within 12.5 miles of a metro area with 500,000 people or more, 10 miles of an area with 250,000 – 499,999 people, 7.5 miles of an area with 100,000 – 249,999 people, or 5 miles of an area with 50,000 – 99,999 people; and all remaining zip codes are defined as Suburban.

**Conclusion**

School psychology as a field has undergone many changes since its inception, from an original focus on aptitude and ability assessment during the Hybrid Years to increased emphasis on consultation during the Thoroughbred Years to the current emphasis on problem-solving, prevention, and mental health issues. Throughout this time, the role and function of school psychologists in various community settings have evolved as well. School psychologists have been expected to serve many students with high effectiveness and efficiency despite scarce resources and changing educational and political climates. In recent years, NASP has increased its role in guiding the profession and the professionals. One way NASP has leveraged its resources and influenced practice in the field is through the survey of the field every five years. This has allowed NASP leadership to steer the profession in new directions according to best practices and current research in the field.

As stated previously, school psychologists have undergone many changes from the beginnings of the profession. That said, in the studies since 1989 conducted by NASP, school psychologists spent most of their time conducting evaluations and performing other duties related to special education (70% of their time). In addition, 46.5% did not provide counseling to students, 22.2% did not conduct in-service trainings, and 44.8% considered their district suburban, 30.3% urban, and 24.9% rural (Curtis et al., 1999).
In the NASP 2010 study, school psychologists spent less of their time engaged in special education evaluations, and on average completed 27.3 initial evaluations. They spent more time in consultation (16%) and direct intervention activities (10.44%). Although, school psychologists still did not provide many in-service trainings (2.8% of time), they spent more of their time engaged in systems or organizational activities (5.84%), and in spite of recent legislation and a movement toward a problem-solving model (i.e., Response to Intervention), school psychologists continued to spend most of their time (61.2%) in special education eligibility-related activities (Castillo et al., 2012).

Additionally, job satisfaction appears to play an important role in school psychologists’ perceptions of their efficiency and effectiveness in a school. An important finding reported by Proctor and Steadman (2003) was that school psychologists who are assigned to a single building in a school district report higher levels of perceived job satisfaction and effectiveness and experience lower levels of burnout than colleagues who serve multiple buildings in a district. Proctor and Steadman’s (2003) study also lends support to the desirability for school psychologists to have the opportunity to engage in more diversified roles and experience more manageable caseloads when assigned to a single building. Therefore, the current study provides analysis related to this proposed link.

A major component of properly defining school psychological practice in different community settings is ensuring the accuracy, preciseness, and comprehensiveness of the operational definition of what constitutes rural, urban, and suburban (Coladarci, 2007). The most commonly used definitions or classification systems for defining rural and urban areas in public education are 1) U.S. Census Bureau classifications, 2) Metropolitan status codes, 3) Urban-
rural continuum codes, 4) Metro-centric locale codes, 5) Urban-centric locale codes, and 6) Core-based statistical areas.

Three government agencies that use one or more of the above classification systems when defining rural and urban are the most commonly cited and used, and these are: 1) U.S. Census Bureau, 2) Office of Management and Budget, and 3) United States Department of Agriculture (USDA). These agencies each have separate uses and purposes for defining rural and urban, so none of the definitions provided encompass all aspects that can make a community setting inherently rural or urban. It is then up to the individual researcher to appropriately select a definition that fits the scope and purpose of the research questions and maintain a well-defined procedure for ensuring the accuracy of the operational definition of rural and urban for the duration of the study. Therefore, the current study utilized the zip code database Rural-Suburban-Urban Data from the company Great Data to define rural, suburban, and urban community settings. Great Data’s definition combines many of the features found in the most common (i.e., the six definitions) definitions of community setting.

Current Study

Five research questions guided the current study. First, the research addressed how school psychologists spend their time and their level of job satisfaction as it relates to different community settings. Second, it explored the factors that affect the percentage of time school psychologists spend outside of special education assessment. Third, factors that affect the number of roles in which school psychologists engage were explored. The fourth area that was investigated was the differences in role and function of school psychologists within rural settings. The final research question examined the factors that affect a school psychologist’s job satisfaction.
Chapter 3: Method

Design

The current project utilized a survey design to examine the different factors related to the role and function of school psychologists in various community settings. This study employed geographical cluster sampling methods in order to obtain a representative sample of school psychologist participants and to address known sampling limitations described in previous rural research literature. This allowed for nationwide sampling of both NASP and non-NASP members. Sampling methods used by Lewis et al. (2008) were employed. Lewis et al. (2008) geographically clustered participants using NASP established geographic regions in order to obtain a nationally representative sample of school psychologists.

NASP established geographic membership areas for research and classification purposes, and split the United States into four geographic regions called NASP regions. The four NASP regions are: central region (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, OK, SD, WI), northeast region\(^\text{1}\) (CT, DE, DC, ME, MD, MA, NH, NJ, NY, PA, PR, RI, VT), southeast region (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, TX, VA, WV), and western region (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY).

In order to attempt to obtain a representative sample of the NASP regions, 2,000 school districts were randomly selected from the National Center for Education Statistics (NCES) Elementary/Secondary Information database. From the list of 2,000 schools, 500 school districts were sampled from each NASP region. According to a commonly used sample size calculator (http://www.danielsoper.com/statcalc3/calc.aspx?id=1) for multiple regressions containing

\(\text{1 NASP includes Washington D.C. (DC) and Puerto Rico (PR) in the region classification system even though those areas are not states. Those areas are included in the northeast region, as that} \)
three to four independent variables, the number of respondents needed for statistically significant results was 76 to 84 (Soper, 2014). For the t test a minimum of 60 school psychologist respondents was needed to possibly achieve statistical significance (Furlong, Lovelace, & Lovelace, 2000).

Thus, this study recruited more participants than was necessary to possibly achieve statistical significance from the four NASP regions. This was done in order to account for likely low response rates (30% or less) and to allow for the ability to create stratified community settings (i.e., rural, remote rural, urban, inner city, suburban). To gain an approximate idea of the number of school psychologists practicing nationwide, NASP membership statistics are presented, as these are the most up to date census data for the field. The total number of NASP members for the 2013 – 2014 fiscal year was 24,796 individuals living within the United States and Canada; the total number of members living outside the United States and Canada was 149 individuals (NASP online).

The school districts that are considered public, private, charter, or faith-based in the United States were sent surveys. The Great Data zip code database was applied to the school district list to determine the community setting classification of each district. This provided a total number of surveys sent to a certain community setting and indicated the percentage of the sample it represents. Of the 2,000 school districts sampled, 201 (10% of the sample) were urban, 417 (20.8% of the sample) were suburban, 1378 (68.9% of the sample) were rural, and 4 (0.2%) were undeterminable (see Table 1).

The school districts were randomly selected using the random number generator function included in the Microsoft Excel software suite. When the community setting classification percentages for the three school district categories were compared with the school psychologist
respondent zip code, community setting classifications, and the original NCES data set, all percentages were in proportion within a few percentage points (see Figure 1). This indicates that community setting was representative in the school district sample group as well as in the school psychologist respondent group.

Participants

School psychologist participant demographic information is detailed in Table 2. The school districts in which participants were employed were predominately public school settings \((n = 215; \text{SD} = .67; 97.7\%)\) and were identified by the school psychologist participants as a rural setting \((n = 141; \text{SD} = .62; 64.1\%)\). The majority of the school psychologist participants were White \((n = 200; \text{SD} = .58; 90.9\%)\), on average were practicing as a school psychologist for 14 years, and the participant mean age was 44 years. Most participants \((n = 133; \text{SD} = .63; 60.5\%)\) held a specialist degree (e.g., MA + 60 credit hours), more than half were NASP members \((n = 126; \text{SD} = .49; 56.8\%)\), only 38.2\% \((n = 84; \text{SD} = .48)\) held the Nationally Certified School Psychologist (NCSP) credential, the majority held state education agency certification as a school psychologist \((n = 183; \text{SD} = .36; 83.2\%)\), and a small percentage held licensure as a school psychologist at the non-doctoral level \((n = 29; \text{SD} = .34; 13.2\%)\).

To obtain school psychologist participants, individual school districts were recruited using the National Center for Education Statistics (NCES) Elementary/Secondary Information database \((http://nces.ed.gov/ccd/elsi/)\). Filters were applied to the database to select only accredited public school districts and regional education centers. The database contains 15,155 pre-k – 12 school districts and regional education centers, which operate in all 50 states and the District of Columbia. The procedure for sampling school districts included first assigning each
district from the NCES Elementary/Secondary Information database to the appropriate NASP region in Microsoft Excel.

Once the school districts were filtered into their respective NASP regions, the random number generator function in the Excel program was applied to each NASP region separately. The random number generator selected 500 schools from each NASP region. Once 500 schools from each NASP region were selected, the selected school district received a survey packet in the mail, addressed *Attention: School Psychologist*. When each school received the survey packet, it was left to the school’s mail distribution system to route the survey packet to the school psychologist for that school. Although it is likely that each school district or regional education center has multiple school psychologists on staff, only one school psychologist received the survey packet, and it was left to the school’s discretion as to which school psychologist received the survey packet, thus maintaining random recruitment of participants.

The sample response rate for this study was 11% with 220 returned valid responses out of 232 total surveys returned (see Table 3 for response rate for each NASP region). Based on the results of previous NASP surveys of the field, the typical response rate for paper mailed surveys is in the 70 – 80% range (Castillo et al., 2012; Curtis et al., 2008; Curtis, Castillo et al., 2012; Curtis, Hunley, & Baker, 1996, March; Curtis et al., 2002; Curtis et al., 2004; Curtis et al., 1999; Curtis et al., 2012, February; Garden & Curtis, 1991, September). Because this study was not conducted by NASP or any other well-known entity, a 30% response rate was hoped to be achieved.

**Definition of Community Setting**

In this study, the community setting areas defined as rural, suburban, or urban were defined using U.S. zip codes. The definition was derived from the zip code database called
Rural-Suburban-Urban Data created by the company Great Data (http://greatdata.com/rural-urban-data). Great Data’s zip code database was selected as the method for categorizing rural because it includes highly specified definitions of rural, suburban, and urban. As mentioned previously, there are many definitions of rural, and none of the available definitions is wholly satisfactory. Additionally, according to Coladarci (2007), the most important aspect of quality research in the rural setting is defining rural based on the needs of the researcher’s study and that definitions of rural may vary based on the purpose of the study. The most important consideration is that rural be defined very specifically, as there is no one correct definition of rural. Great Data has recognized this issue and has developed a definition of rural, urban, and suburban that takes into account the lack of a perfect definition.

Additionally, exact definitions for remote rural and inner city were not readily available in the research. For the purposes of this study, remote rural and inner city were defined based on participants’ perceptions of the community setting in which they work. Participants were asked a question in which they decided if the community setting in which they work is considered inner city, urban, suburban, rural, or remote rural. Although there are pitfalls to relying on participant perceptions of their community setting for defining their setting type, this procedure was augmented by Great Data’s Rural-Suburban-Urban database, which uses specific criteria to define rural, suburban, and urban that are free from personal perception of community setting. This is most evident in the multiple regression analyses that utilize both the standardized ZIP definition and the self-identified definitions of community setting.

Measures

**Regional Role and Function Survey (RRFS).** A survey was created called the Regional Role and Function Survey (RRFS) and was distributed to the participants (see Appendix A). The
RRFS consists of questions measuring demographic information about the school psychologist and school, and it also includes a role and function matrix. The demographics portion of the survey includes information about the school psychologist such as age, sex, ethnicity, education level, and grade levels served. Information about the school relates to number of school psychologists in the district, ratio of school psychologists to students in the district, type of community setting as judged by the respondent (e.g., rural, urban, suburban), a matrix of common roles and functions of school psychologists identified in the research ("Appendix II - Guidelines for the provision of school psychological services," 2008; Castillo et al., 2012; Fagan, 2008; Huebner et al., 1984; Noltemeyer & McLaughlin, 2011; Reschly & Wilson, 1995; Williams, 2010; Ysseldyke et al., 2006, 2008), and a survey created by Swanson, Hussar, and Young (August 2012) was used as the basis for the construction of the role and function portion of this survey. Basing the RRFS and the Role and Function Matrix (RFM) on these previous studies and the current NASP recommendations for training contributed to item content validity.

The RFM that was created by Swanson et al. (August 2012) contained sixteen role and function categories and asked participating school psychologists to endorse the percentage of their time that they spent engaged in each activity. The participants were instructed to check that their total percentages added to 100. For the creation of the RFM, the Swanson et al. (August 2012) survey was used as the basis for the RFM creation, albeit significantly revised. The RFM reduced the number of activities for participants to choose from and combined activities into categories, reducing sixteen distinct roles and functions into 13 distinct role and function categories on the RFM.

In addition to the revision of activities included, the RFM also utilized a novel approach to instructing and assisting participants with computing percentages of time spent in particular
activities more accurately. This was achieved through the addition of the percentage of time rubric, which participants were asked to use when estimating the percentages. The percentage of time rubric converted frequently occurring percentages of time into hours out of a month and hours out of a week. The percentage of time rubric listed conversions for the following percentages: 5%, 10%, 20%, and 30%. The addition of the percentage of time rubric increased the face validity of the RFM because it helped to break down a challenging task as well as helping participants put number of hours a month and a week into perspective in relation to the percentage of time. This also encouraged participants to reflect on the time they are spending in activities and select an appropriate percentage. This approach also helped participants ensure their total percentage of time added to 100.

**Minnesota Satisfaction Questionnaire – Short Form (MSQ – SF).** The MSQ – SF consists of 20 questions that look at perceived job satisfaction and elements of effectiveness in relation to job related tasks. The MSQ – SF is a job satisfaction questionnaire which is the short form of Weiss, Dawis, England, and Lofquist’s 1977 Long Form of the Minnesota Satisfaction Questionnaire (MSQ – LF). The MSQ – SF uses a 5-point Likert scale as the response structure for the items. Very dissatisfied has a value of 1; dissatisfied a value of 2; neither satisfied or dissatisfied a value of 3; satisfied a value of 4; and very satisfied a value of 5. Thus, higher scores indicate higher levels of job satisfaction (Weiss et al., 1967). The MSQ – SF has two separate scales: the Intrinsic Satisfaction Scale and the Extrinsic Satisfaction Scale that are part of the General Satisfaction Scale which is a composite of all of the items. The General Satisfaction Scale Composite was used in the analyses for the current study. The Intrinsic and Extrinsic Satisfaction Scales were not used, as the reliability scores are not available for those scales.
The MSQ – LF enjoys a long history of use for studies of job satisfaction across various fields. The MSQ – LF has strong reliability ranging from 0.77 to 0.95 (Brown, Hohenshil, & Brown, 1998; Weiss et al., 1967). Similarly, the MSQ – SF has strong reliability ranging from 0.87 to 0.92 for the General Satisfaction Scale (Weiss et al., 1967). In addition the MSQ - LF was found to have adequate concurrent and construct validity (Bolton, 1986; Gainey, 2004; Gillet & Schwab, 1975; Guion, 1978); according to Weiss et al. (1967), the MSQ – SF gains its construct validity from the construct validity of the MSQ – LF. Anderson (1983) and Brown et al. (1998) found a significant relationship between expressed job satisfaction and overall job satisfaction on the MSQ – LF.

The MSQ – SF was scored according to the survey manual guidelines and percentile ranks were assigned to each participant based on the overall sample. Percentile ranks were labeled and separated based on standard practices in data analysis, as suggested by the MSQ – SF survey manual guidelines. A percentile rank of 50 represents the mean for the distribution. The labels and corresponding percentile rank ranges used, are as follows; percentile ranks between 0 – 24 were labeled low level of satisfaction, percentile ranks between 25 – 74 were labeled average level of satisfaction, and percentile ranks between 75 – 100 were labeled high level of satisfaction (Weiss et al., 1967).

**Procedures**

Human Subjects Review Committee approval was gained in the spring of 2014, after which an informal pilot test was conducted using the RRFS and MSQ – SF. In the spring of 2014, the surveys were distributed to three advanced internship graduate students and two practicing school psychologists. The purpose of the pilot test was to determine average completion time of the survey, which was 15 minutes. The completion time was then included in
the instructional materials for the participants. Following the pilot test, in the winter of 2015, school districts were mailed a survey packet along with a prepaid return envelope. Mailed versions of surveys have higher response rates than web versions (Kwak & Radler, 2002; Shih & Xitao Fan, 2008; Van Horn, Green, & Martinussen, 2009). All school psychologist participants were assigned a participant identification code as a way to ensure that the Regional Role and Function Survey (RRFS) and the Minnesota Satisfaction Questionnaire – Short Form remained associated with each individual participant. Participant identification codes were not included on any other survey materials to ensure participant confidentiality.

Participants were offered the opportunity to participate in a raffle. A separate raffle form was included with the survey packet (Appendix B). The raffle form did not include the participant identification code and was kept separate from the survey data. Ten $10 gift cards to Amazon.com were raffled after the survey collection period ended. The ten winners of the raffle were chosen randomly. Winners of the raffle were notified by e-mail or mailing address (provided by the participant on the raffle form) and asked to indicate how they would like to receive the $10 Amazon.com gift card. After three weeks, all of the school districts were mailed a follow-up communication that included a new copy of the surveys and raffle information. The data collection period ended after 15 weeks.

Data Analysis

After the data was collected, it was entered, formatted, and coded into an SPSS data file. The variable Great Data community setting, which is a nominal variable was transformed into dichotomous dummy variables for the purposes of analysis. For the variable job assignment, in-house was defined as a school psychologist who is assigned to one building in one school district
and *traveling* was defined as a school psychologist who is assigned to more than one building in a school district or is assigned to multiple school districts.
Chapter 4: Results

The investigation examined the five research questions through the application of the appropriate statistical test. The statistical methods that were used to investigate the corresponding survey questions appropriate to the stated research question were descriptive statistics, ANOVA, t tests, and multiple regressions. Descriptive statistic results for each survey item from the RRFS and the MSQ – SF are provided in Table 2 and Table 3, respectively.

Specifically, the goal was to describe rural, suburban, and urban school psychologists and their relation to various factors.

Community Setting and Effect on Role Diversification and Job Satisfaction

The first research question was: What do school psychologists in different community settings spend their time doing and what is their level of job satisfaction? For this question, descriptive statistics and one-way, between subjects analysis of variance (ANOVA) were conducted. The ANOVAs were used to describe what percentage of time school psychologists are spending in each role and function in relation to their zip code community setting (i.e., rural, suburban, and urban) and levels of job satisfaction compared to the school psychologist’s zip code community setting (i.e., rural, suburban, and urban).

The percentage of time spent in thirteen different roles and functions based on the school psychologist’s zip code community setting was explored. To answer this question the role and function matrix from the RRFS served to define the thirteen individual dependent variables for each of the ANOVA analyses. The independent variables for the thirteen analyses were the three levels of the zip code community setting categories. Thirteen one-way between subjects ANOVAs were conducted; see Table 5 for a full report of the results. Each analysis used Fisher’s LSD post hoc procedure for the comparisons. The Fisher’s LSD post hoc procedure was
selected, because according to Howell (2010) it is the most powerful post hoc to use when three means are compared.

School psychologists in all three of the zip code community settings spent the majority of their time engaged in assessment activities related to special education (49.97%) (see Table 6). This category was the highest endorsed role and function on the matrix for each zip code community setting (see Figure 2). The second highest endorsed category in terms of percentage of time spent in that role was Individual Consultation (9.98%). The third highest endorsed role and function category was Assessment Activities Related to General Education (8.23%). In addition, the average number of roles and functions in which school psychologists engaged was seven for the whole sample of participants. Similar results were obtained for each of the three community setting subgroups (see Table 7).

Two significant results were found for the following conditions: assessment activities related to special education and providing supervision. Specifically, school psychologists in rural settings endorsed spending a significantly higher percentage of their time in activities related to special education than did school psychologists in urban settings [Rural: (M = 52.281; SD = 23.190; Urban: M = 39.460, SD = 28.320); F(2, 215) = 3.039, p = .05, \( \eta^2 = .027 \)]. Next, school psychologists in suburban settings were found to spend a significantly higher percentage of their time providing supervision than school psychologists in rural settings [Suburban: (M = 4.265; SD = 7.598; Rural: M = 1.575, SD = 3.214); F(2, 215) = 6.117, p = .003, \( \eta^2 = .054 \)].

In addition, the level of job satisfaction based on the school psychologist’s zip code community setting was analyzed. To answer this question the percentile rank was calculated for each participant based on the MSQ – SF which was then used as the dependent variable for the ANOVA analysis. The independent variables were the three levels of the zip code community
setting categories. Again, Fisher’s LSD post hoc procedure for the comparisons was utilized. A one-way between subjects ANOVA was conducted. A significant result was found between suburban and rural school psychologists (see Table 8). The results indicated that school psychologists in suburban locations were less satisfied with their job overall than were school psychologists in rural settings [Suburban: (M = 40.317; SD = 29.509; Rural: M = 52.636, SD = 27.874); F(2, 213) = 3.036, p = .05, η² = .028].

Factors Influencing Time Spent Outside of Special Education Assessment

The second research question was: Does school psychologist regional location, job assignment, or the school psychologist-to-student ratio relate to the percentage of time spent outside of special education assessment? This question utilized multiple regression; the dependent variable, percentage of time spent outside of special education assessment, was regressed on the independent variables: job assignment (i.e., in-house or traveling), zip code community setting (i.e., rural, suburban, urban), and ratio of school psychologists to students. The dependent variable, time spent outside of special education assessment (percentage) in this study represents a conceptualization of the school psychologist engaging in diverse roles and boundary-spanning. The variable zip code community setting was a nominal variable and was transformed into dichotomous dummy variables. For the variable job assignment, in-house was defined as a school psychologist who is assigned to one building in one school district and traveling was defined as a school psychologist who is assigned to more than one building in a school district or is assigned to multiple school districts.

The average school psychologist-to-student ratio was found to be 1:1,344 (n = 201) and 77.7% (n = 171) of the school psychologist participants had a job assignment categorized as traveling. When the dependent variable time spent outside of special education assessment was
regressed on the independent variables, 12.5% of the variance was explained by the resulting model ($R^2 = .125$), this result is significant at the $p < .001$ level ($F(4,189) = 6.732$) (see Table 9).

The only independent variable that had a significant impact on the time spent outside of special education assessment was job assignment ($p = .001, \beta = .264$). This indicates that school psychologists who are stationed in one school building or on one combined K-12 campus are more likely to spend a higher percentage of their time in activities unrelated to special education assessment.

**Factors Influencing the Number of Roles in Which School Psychologists Engage**

The third research question was: *Does regional location or the school psychologist-to-student ratio predict the number of roles in which the school psychologist?* A multiple regression was used to analyze this question and the factors relating to boundary-spanning. The dependent variable, number of roles the school psychologist engages in was regressed on the independent variables: zip code community setting (i.e., rural, suburban, urban), ratio of school psychologists to students, and job assignment (i.e., in-house or traveling). The nominal variable zip code community setting was transformed into dichotomous dummy variables for the analysis.

For the variable job assignment, *in-house* was defined as a school psychologist who is assigned to one building in one school district and *traveling* was defined as a school psychologist who is assigned to more than one building in a school district or is assigned to multiple school districts. Number of roles was defined as participants endorsing spending greater than 0% of their time in a role for each of the roles and functions on the percentage of time matrix. Then each resulting role was added together to create an overall total number of roles for each participant. On average the school psychologists in the sample engaged in seven distinct roles ($SD = 2.33$, min. $= 0$, max. $= 12$).
When the dependent variable *number of roles* was regressed on the independent variables, only 1.4% of the variance was explained by the resulting model ($R^2 = .014$). This result was not significant ($F(4,191) = .668, p = .615$), and none of the independent variables was a significant contributing factor to the model (see Table 10). It is interesting to note however, that school psychologists in rural settings had the highest percentage of practitioners who were considered *traveling* (81%) (see Table 11).

**Variation in Role and Function of School Psychologists within Rural Settings**

The fourth research question was: *Are there differences within the role and function of school psychologists who work in rural settings?* This question used an independent samples $t$ test to compare the percentage of time spent outside of special education assessment, the dependent variable, to the two levels of the independent variable ruralness (i.e., rural and remote rural). It has been previously suggested that school psychologists working in remote rural settings serve a different role and function than school psychologists who work in rural settings (Jerrell, 1984). *Rural* and *remote rural* were defined by using the participants’ endorsement that their school is in either a *rural* or a *remote rural* location.

There were 141 self-identified rural participants and 12 self-identified remote rural participants in the sample. The resulting analysis did not produce significant differences between the conditions ($t_{(151)} = -1.795, p = .075$) (see Table 12). This indicates that there are no differences between the amount of time spent outside special education assessment of school psychologists dependent on their reported level of ruralness.

**Factors Related to School Psychologists’ Job Satisfaction**

The fifth research question was: *Does school psychologist community setting, number of roles engaged in, job assignment, percentage of time engaged in activities outside of special...*
education assessment, or the ratio of school psychologists to students predict the level of satisfaction school psychologists perceive about their job? This question utilized multiple regression; the dependent variable, level of job satisfaction (represented as a percentile rank), was regressed on the independent variables: job assignment (i.e., in-house school psychologist or traveling), zip code community setting (i.e., rural, suburban, urban), the total amount of time spent outside special education assessment, and the participant’s personal ratio of school psychologist to students.

The mean percentile rank for job satisfaction among the participants was 50.231, which indicates an average level of job satisfaction. When the dependent variable was regressed on the independent variables a significant result was observed at the p = .033 level \( (F_{(6,184)} = 2.344) \), and this accounted for 7.1% \( (R^2 = .071) \) of the variance (see Table 13). One variable was a significant predictor of job satisfaction. Being a school psychologist who practices in a suburban location predicted a lower level of job satisfaction \( (p = .006) \).

**Secondary Analyses**

Secondary analyses were performed on all of the proposed research questions. All of the secondary analyses conducted were completed using the same statistical methods as the primary analyses. The only difference was that the secondary analyses used the participant self-identified community setting in place of zip code community setting. The secondary analyses were performed to attempt to replicate results from previous research and literature that did not standardize the definition of community setting and more specifically rural location. Most previous research on this topic has utilized participant self-identified community location for the purposes of defining urban, suburban, and rural settings. For this study it was hypothesized that participants might not be adept at correctly identifying their community setting, as indicated by
previous studies on this topic (Coladarci, 2007). This hypothesis is demonstrated in Table 14, which indicates that school psychologists in rural schools were more accurately able to identify their community setting, suburban school psychologists demonstrated more variability in the accuracy of identifying their community setting, and urban-based school psychologists experienced the most difficulty in accurately identifying their community setting. Due to these variations, secondary analyses utilizing self-identified community setting were important to investigate.

1) **Community setting and effect on role diversification and job satisfaction.**

To compare the thirteen levels of the RFM with the three levels of self-identified community setting ANOVA analyses were employed. This produced thirteen new one-way between subjects ANOVAs, see Table 15 for a full report of the results. Each analysis used Fisher’s LSD post hoc procedure for the comparisons.

School psychologists in all three of the self-identified community settings spent the majority of their time engaged in *assessment activities related to special education* (49.64%) which was similar to the primary analysis results. This category was the highest endorsed role and function on the matrix for each zip code community setting. The second highest endorsed category in terms of percentage of time spent in that role was *Individual Consultation* (10.11%), which again was similar to the primary analysis. The third highest endorsed role and function category was *Assessment Activities Related to General Education* (8.06%), which was also similar to the primary analysis.

Only one significant result was obtained in this second set of analyses, unlike the primary analyses which obtained two significant results. In this additional analysis, only *assessment activities related to special education* yielded significant results. Specifically, school
psychologists in rural settings endorsed spending a significantly higher percentage of their time in *activities related to special education* than did school psychologists in suburban locations [Rural: (M = 52.911; SD = 22.766; Suburban: M = 40.962, SD = 27.977); F(2, 206) = 5.267, p = .006, η² = .027].

Level of job satisfaction based on the school psychologist’s self-identified community setting was also analyzed. This was compared to the percentile rank that was calculated for each participant based on the MSQ – SF. Again, Fisher’s LSD post hoc procedure for the comparisons was utilized. A one-way between subjects ANOVA was conducted. No significant result was found among the school psychologists in any of the three levels of community setting (see Table 16).

2) Factors influencing time spent outside of special education assessment.
Interestingly, when the multiple regression was run again (see Table 17), but this time replacing the zip code community setting variable with the school psychologist participant self-identified community setting variable, more of the variance (14.7%, R² = .147) was explained by the resulting model and it was significant at the p < .001 level (F(4,182) = 7.856). For this analysis the self-identified community setting category was transformed into a dichotomous dummy variable, the inner city and urban variables were collapsed into a new variable, *urban* and the variables rural and remote rural were collapsed into a new variable, *rural*. This was done because the number of participants who distinguished themselves as a smaller subset of the urban or rural categories was not large enough to warrant individual variables for the analysis (inner city, n = 0; remote rural, n = 13).

In this second regression, two, rather than one independent variables had a significant impact on the model. Those variables were *job assignment* and *suburban* (p = .002, β = 0.25 and
p = .04, \( \beta = 0.14 \), respectively). These results indicate again that a school psychologist who is considered in-house is more likely to engage in a higher percentage of activities unrelated to special education assessment (14.7\%, \( R^2 = .147 \)). In addition, these results also showed that school psychologists who self-identified themselves as working in a suburban school were more likely to engage in a higher percentage of roles unrelated to special education assessment.

3) Factors influencing the number of roles in which school psychologists engage.

When the multiple regression was run again, this time with participant self-identified community setting, the resulting model accounted for 1.9\% of the variance (\( R^2 = .019 \)) and the model was not significant (\( F(4,184) = .897, p = .467 \)). In addition, again no significant predictors were found. These results indicate that the number of roles a school psychologist engages in are not significantly influenced by factors such as traveling, school psychologist to student ratio, or community setting and likely some other factor is more influential in determining the number of roles in which a school psychologist engages (see Table 18).

4) Variation in role and function of school psychologists within rural settings.

However, when the independent variables were redefined as rural and school psychologists who serve a single K-12 campus, a significant result was obtained between the conditions (\( t = 3.775, df = 24.357, p = .001 \)) (see Table 19). Rural was redefined and transformed into a collapsed variable that included self-identified rural and remote rural variables. This analysis indicates that school psychologists in remote rural schools (\( M = 64.473, SD = 20.405 \)) spend a higher percentage of their time engaged in roles and functions outside of special education assessment in comparison to school psychologists in rural schools (\( M = 45.394, SD = 22.361 \)). The mean difference between the conditions was 19.078 and the 95\% confidence interval for the estimated
population mean difference is between 8.657 and 29.5. The effect size using Cohen’s d was large ($d = 0.8$).

5) **Factors related to school psychologist’s job satisfaction.** When the multiple regression was run once more, this time replacing the zip code community setting independent variables for the self-identified community setting variables a significant result was not obtained for the model ($F(6,177) = 1.874, p = .088$). The resulting model only accounted for 6% of the variance ($R^2 = .06$) (see Table 20).
Chapter 5: Discussion

The overarching goal of this research was to describe the role and function of school psychologists in differing community settings, with specific emphasis placed on school psychologists practicing in rural schools. To achieve that goal, five research questions were developed and examined. The first research question addressed diversity of roles in which school psychologists engage and their job satisfaction based on their community setting. The second and third research questions examined the generalist model and boundary-spanning as it related to varying community settings and other factors. The fourth research question investigated the differences between school psychologists working in varying degrees of ruralness. Finally, the fifth research question explored school psychologists’ job satisfaction as it related to their community setting and the factors that predict it. To enhance the exploration of the overarching goal and its tenets, the empirical design addressed current methodological criticisms of the research conducted in relation to rural topics. The process was guided by the recommendations of Coladarci (2007).

Role Diversification

Role diversification was described in the literature as one of the hallmarks distinguishing school psychologists working in rural settings from all other community settings. Additionally, job satisfaction in relation to community location was also explored. The first research question examined these factors.

Twelve distinct roles and functions (N.B., the thirteenth role option on the role and function matrix was the category other) were presented to the participants as options to rate the percentage of time they spent in each role and function. Similar to previous NASP surveys of
the field, this study found that in general school psychologists spent the majority of their time in engaged in activities related to special education, as did each community setting subgroup.

Contrary to previous hypotheses, findings, and observational assertions (Ehly & Reimers, 1986; Huebner et al., 1984; Hughes & Clark, 1981; Jerrell, 1984; Reschly & Connolly, 1990; Truscott & Truscott, 2005), school psychologists working in rural settings in this study spent a significantly higher percentage of their time engaged in activities related to special education than did school psychologists practicing in urban locations. Perhaps a contributing factor was that school psychologists in rural settings spent a high percentage of their time traveling between school buildings or school districts. The high level of traveling likely influenced their ability to engage in all roles and functions fully and reduced their role to completing portions that are a legal obligation (i.e., special education evaluations).

In addition, school psychologists in suburban locations spent a significantly higher percentage of their time providing supervision than rurally-based school psychologists. It is possible that school psychologists in suburban locations spent more time in supervision because they may have more access to graduate school programs and suburban districts may have more school psychologist faculty to facilitate a need for supervision. Another possible reason for this result could be that rurally based school psychologists engaged in more special education assessment and spend more time traveling, leaving little time to devote to other important job roles and functions, never mind taking on supervision of graduate students, interns, or other professionals.

Job satisfaction was assessed based on the school psychologist’s community setting zip code. The trend that emerged was that school psychologists practicing in suburban locations were significantly less satisfied with their jobs overall than were school psychologists in rural
settings. This result could be due to a higher percentage of school psychologists in suburban settings serving more than five school buildings and on average more than 1,600 students for every one school psychologist. In comparison, school psychologists in rural settings typically served four or fewer school buildings and on average fewer than 1,200 students for every one school psychologist. Although both suburban and rural community settings revealed a majority of practitioners in a traveling role rather than an in-house role, school psychologists in rural settings appeared to work for smaller districts with fewer students and buildings.

**The Generalist Model and Boundary-Spanning**

Percentage of time spent outside of the special education assessment was used as the main distinction in the analysis to demonstrate roles and functions that were considered diversified for the second research question. It is difficult for school psychologists to engage in boundary-spanning when much of their time is devoted to special education assessment activities. It is especially difficult to engage in boundary-spanning when special education assessment is usually an administratively assigned task involving legal obligations and strict timelines, as well as usually outside the discretionary control of the individual school psychologist. For these reasons, boundary-spanning was defined as engaging in activities outside of special education assessment, such as prevention and interventions activities, consultation, systems level change, and so on. Engaging in boundary-spanning activities would carry less legal and regulatory obligation and have a higher degree of self-determination of engagement in activities.

The factors that were hypothesized to predict the percentage of time school psychologists spend outside of a special education assessment role were community setting, in-house or traveling job assignment, and school psychologist to student ratio. Although community setting
was not a significant predictor, job assignment (i.e., in-house or traveling) was, with school psychologists who served within one school building spending a higher percentage of time in a diversified role. Perhaps this indicates that community setting does not necessarily matter as much as being in a single centralized location in which the school psychologist is more able to and can more easily form relationships with teachers, staff, administrators, and the system at large.

It is also important to note that although the school psychologists spent the highest percentage of their time (49.97%) engaging in activities related to special education assessment, this was still only approximately half of their time. This was also significantly less time than what school psychologists in the first NASP survey (Curtis et al., 1999) of the field endorsed (70% of their time spent in assessment activities related to special education). There is a perception in the educational and school psychology fields that school psychologists spend all of their time engaged in activities related to special education assessment. Although it is true that school psychologists are spending a lot of their time engaged in special education assessment, they are not spending all of their time engaged in that one activity. The results of this study indicate that school psychologists do engage in other roles and functions regularly, as approximately half of their time was spent in other roles and functions that were not related to special education assessment.

Interestingly though, when community setting based on self-identification was replaced in the analysis, two significant results emerged. School psychologists considered in-house continued to engage in a more diverse role, but so did school psychologists in suburban locations. Self-identification of regional location appears to have a part in defining significance and these results corroborate previous findings in the literature, which asserted differences in role
and function related to community setting (Ehly & Reimers, 1986; Huebner et al., 1984; Hughes & Clark, 1981; Reschly & Connolly, 1990). Considering boundary-spanning is a desirable model of service delivery for school psychological practice, the results lend support to the placement of one school psychologist in each building in a school district. When one school psychologist is in one building, that professional is better able to fully engage in multiple roles, become an integrated part of that school building and system and experience a higher degree of job satisfaction.

NASP recommends a specific ratio of school psychologists to students. That should still be an important consideration for staffing a building and a district, but just as important for school districts to consider is the amount of travel time in which school psychologists engage. When school psychologists spend more time traveling they likely have less time to devote to all of the various roles and functions they could have in a school district. School districts might consider stationing at least one full time school psychologist in each school building in order to efficiently use school psychologists’ time and skills. In this study, ratio of school psychologist-to-students might not have led to a significant result because some participants did not accurately report their ratio, some did not report ratios at all, and still others did not report accurately the number of school psychologists working in their district. These inaccuracies were noticed when participants’ answers to ratio questions were cross-referenced with other answers to similar questions on the RRFS. All of these factors contributed to a lack of significance as well as other factors likely having a stronger effect on the outcomes.

Additionally, number of roles was used to demonstrate not only the average number of roles school psychologists engage in but also to show the average number of roles in which school psychologists in different community settings engage, and this was addressed by the third
research question. This too, was used to demonstrate level of role diversification, generalist practice orientation, and boundary-spanning.

When number of roles was regressed on factors such as regional location, school psychologist to student ratio, and traveling or in-house based job assignment, no significant predictors emerged. To address the possibility that operationally defining community setting by zip code was contributing to the differences, where in previous research self-identification was used, an additional analysis was completed using self-identified regional locations. Moreover, this too, did not produce significant results. Something more to consider is that only school psychologist roles and functions were measured, and perhaps community setting differences might have emerged if other roles and functions within a school system not traditionally associated with school psychologists were offered as choices (e.g., teaching a course).

No matter the community setting, a school psychologist is likely to engage in a similar number of roles and will spend a similar percentage of time in those roles and functions in comparison to school psychologists in other community settings. Although previous researchers asserted community settings differences, that result could not be replicated, even when self-identified community setting was substituted in the analyses for the strict operational zip code definition.

Number of roles may not be a good predictor of a diversified role because school psychologists likely strive to engage in multiple roles and functions, and even if they engage in a certain role infrequently, engagement in that role was still endorsed. The engagement in a particular role did not account for the quality of engagement in that particular role or function, and it is likely that there is variation in the amount of time spent in a particular role or function based on the day, week, or month of the school year.
The Rural Difference

Jerrell (1984) and Barker (1960; 1968) examined factors related to boundary-spanning and manning theory respectively. Both hypothesized similar explanations for rural role and function differences. Jerrell (1984) asserted that professionals like school psychologists in rural schools may take on roles of other specialists that are not available in that setting, such as a reading specialist teacher. Huebner et al. (1984) applied manning theory to rural school settings and school psychologists resulting in findings supporting that understaffed rural school settings utilized school psychologists in areas not traditionally associated with school psychology. This sometimes led to other essential positions going unfilled, as school psychologists filled practice gaps.

Huebner et al. (1984) and others attempted to establish school psychology practiced in a rural location as a distinct specialty in relation to school psychologists in other community settings. Furthermore, there was an implied difference in practice of school psychology in rural settings and the existence of a rural and remote rural difference. Jerrell (1984), indicated that district-bound school psychologists engaged in more boundary-spanning. This finding supported hypotheses that school psychologists contained in one school building were best able to engage in boundary-spanning and were more likely to be in an appropriately staffed setting.

Thus, the fourth research question set out to examine possible differences in the role, function, and practice between rural and remote rural school psychologists. The analysis again utilized a definition of a diversified role as percentage time spent outside of special education assessment. This was then compared to participant’s self-identified community settings as rural or remote rural. This comparison resulted in a non-significant result and essentially indicated that differences between rural and remote rural school psychologists in terms of role and
function did not exist. This result was surprising and unexpected based on the literature base. Nevertheless, it was observed that participants experienced variation in self-identifying their community setting. Rural school psychologists were the best at self-identifying their community setting while school psychologists in urban and suburban settings had more difficulty identifying their community setting according to the assigned zip code setting. It is possible that participants considered different factors when identifying their community setting than the factors considered by the zip code database. Because of this, the literature was again consulted and new definitions for \textit{rural} and \textit{remote rural} were devised in order to compare the factors.

Because this study was designed to address methodological design flaws previously noted in other research projects, this project benefited from a rigorous design as well as sacrificed control over flexible definitions. One of the underlying tenets of this project was to enhance what was previously done in the field and to try to find corroborating support for previous findings. In order to try to find support for previous findings, methods that employed less strict definitions and less rigorous definitions were formed and employed. This contrast helps support future improvements to this study and demonstrates the influence of the empirical design used.

The definition for role diversification remained the same as in the primary analysis, and the self-identified categories of \textit{rural} and \textit{remote rural} were combined into the new category of \textit{rural}. \textit{Remote rural} was redefined as a school psychologist who served a single campus K-12 building, based on the observations and findings of Jerrell (1984). When these new factors were compared, the results indicated that school psychologists serving a single K-12 building were spending a higher percentage of their time engaged in roles and functions outside of special education assessment. This result lends credence to the ideas asserted previously that the
number of school buildings a school psychologist serves is an important factor in determining a diversified role and boundary-spanning. Therefore, it appears that community setting is less important as a factor influencing role diversification. Rather, perhaps, when school psychologists engage in less traveling, they are able to more easily schedule activities and appointments. This means that the school psychologist is always present and easily accessible by faculty, staff, and students. This could also indicate that schools that station a school psychologist in each building in their district may be more likely to be appropriately staffed.

Perhaps indicating further, that time spent outside of special education assessment may not matter as much as the percentage of time that the school psychologist spends traveling between buildings. Those school psychologists that did not travel between buildings spent less time completing special education assessment and were more able to engage in boundary-spanning and other preventive activities. Furthermore, school psychologists in remote rural settings likely work for schools with fewer resources and specialized professionals available in the school and in the community, thus necessitating school psychologists to engage in boundary-spanning.

**School Psychologist Job Satisfaction**

The purpose of the fifth research question was to explore job satisfaction. Job satisfaction was regressed on the predictors: community based on zip code, job assignment (i.e., in-house or traveling), school psychologist to student ratio, number of roles the school psychologist engages in, and percentage of time spent in activities outside of special education assessment. This analysis produced one significant result, that being school psychologists working in suburban locations were more likely to predict lower job satisfaction. This indicates that none of the other factors appeared to significantly influence job satisfaction. When the
analysis was completed again, this time using self-identified regional locations, no significant results were produced. Perhaps suburban school psychologists experienced lower levels of job satisfaction because they served more school buildings, experienced higher school psychologist to student ratios, and engaged in a high degree of time traveling between buildings.

Qualitative comments written in by participants indicated that job satisfaction and the roles and functions individual school psychologists engaged in were influenced by things like school culture and expectations, administrative initiatives, directives, oversight, and the amount of time the school psychologist spent traveling between buildings and school districts. Based on these comments, future research should focus on the effects of school culture, administrator involvement, and travel time.

**Operationalization of Community Setting and Methodological Design**

One of the major goals and subsequently strengths of this study was to address the common pitfalls of researching rural community settings. Defining *rural* accurately, with depth, and with an operational definition is paramount for yielding high quality results that can inform practice and policy (Coladarci, 2007).

To address operationalizing a rural definition, the most common community setting definitions were evaluated for use, as described in the Defining Rural section of this study. As a result, a relatively easy and highly appropriate way to achieve this goal was by using zip codes and a data set maintained by the company *Great Data*. *Great Data’s* definition of community setting fit the research design and incorporated important elements related to the population that was being studied.

A consequence of using this method emerged after data collection and analysis, that being participants’ accuracy in self-identification of community setting in relation to their
assigned community setting based on the *Great Data* definition. This resulted in the current study adding additional analyses in an attempt to replicate previous results and explain the results obtained. As the results of this study were analyzed, it was observed that 42 (or 19.9%) of the participants had incongruent self-identified community setting responses in comparison to their zip code identified community setting. This could have contributed to issues with determining significance and effect size. Participants who self-identified as in one community setting but were actually in a different zip code based community setting were likely perceiving themselves and their roles differently than those with congruently identified community settings. An additional occurrence was overrepresentation or under representation of a certain community setting in the analyses based on whether community setting was self-identified or the operationalized definition was used.

Also of note, participants may not be adept at accurately self-identifying community setting, and the operational definition might exclude factors that would qualitatively define a community setting in a certain way. Participants’ perceptions of their community setting are likely influenced by the way in which they conceptualized the questions and how they approach the practice of school psychology in their community setting. Perhaps the standardized definition using zip code to classify community setting lacked the qualitative, intangible, and nuanced differences between varying areas throughout the country. More specifically, participants likely answered the questions by reflecting on their own experiences and situations. There is likely a difference between the rural southeast and the rural northeast, different regions of the country have varying educational and cultural practices, as well as varying access to resources. These differences may best be measured through qualitative investigations such as structured interviews and field observations.
fully, future projects should focus on the effects of perceived community setting on roles and functions of school psychologists. This ultimately can better inform best practices for school psychologists concerning appropriate roles and functions based on the needs of the community setting in which they work.

Another major criticism of survey research of school psychologists is that many surveys sample only NASP members (Lewis et al., 2008). Although, NASP membership surveys enjoy high response rates, these surveys could lack generalization to the field as a whole. Lewis et al. (2008) was able to establish through a survey of school psychologists who were not NASP members that similar results were obtained as NASP member surveys. This was achieved by using geographic cluster sampling methods and the stratified NASP regions in order to maintain a representative sample. This methodology was utilized in the current study as well. Even through significant differences between non-NASP member surveys and NASP members surveys did not emerge, qualitative information demonstrated the importance of including non-NASP members to enhance the validity of results and the ability to generalize. Lewis et al. estimate the major reason for not including non-NASP members in studies of the field is feasibility.

To address representativeness of the sample geographic cluster sampling was employed as well as the stratified NASP regions as described by Lewis et al. (2008). This methodology ensured a representative sample of the NASP regions and one that included non-NASP members. To further address the criticism of researchers sampling only NASP members, a novel participant recruitment method was designed. Districts were recruited using the NCES Elementary/Secondary Information database and randomly selected. A major issue with using this database was that school district names were listed and not individual school psychologists.
As such the routing of the survey to a school psychologist was left to discretion of each school district.

Admittedly, this method was more difficult, time consuming, and costly than simply using the NASP membership database. However, one of the major advantages of sampling districts in this way was the ability to sample as many school psychology participants as desired. In contrast, using the NASP membership database limited surveying a maximum of 1,000 school psychologists.

Through the empirical design, similar descriptive results emerged for this study in comparison to previous NASP surveys of the field. The results were also consistent with previous rural research, thus providing credence to the findings and observations of Lewis et al. (2008). What was even more surprising was the subjective observational information that was gained from structuring the research design in this way. As the surveys were processed, a theme emerged among some of the participants who were not NASP members. Some participants chose to write unsolicited additional comments which may provide insight into differences between non-NASP members and NASP members.

Some of the comments about NASP membership were; “Not a member, too expensive,” “Membership lapsed a while ago, not renewing,” “I was a member in the past, not now, too expensive,” and “I am boycotting NASP at this time.” These comments raise more questions, such as, are there differences been those who choose NASP membership and those that do not, and do non-NASP members engage in different roles and functions than do NASP members? Although, these were not questions set out to be answered by this research, these are nonetheless important points to consider.
Finally, of interest to discuss are the results of the analyses. Although it was hoped that many significant results would emerge providing evidence that community setting practice differences exist, this overall was not the case. Significant results that did emerge, however, should not be dismissed. There are many reasonable explanations for these results, but perhaps the biggest issue was sample size. It is possible that there are truly significant differences between school psychologists in differing community settings as asserted by previous researchers, but those assertions and results were not replicated in this study at the levels discussed in prior research.

Replication of previous results was not achieved even when the analyses reverted to using the de facto method for measuring community setting, self-identification. Self-identification was used in an attempt to replicate previous findings. Previous research in this area likely has included a high level of empirical flaws and an overstating of results that makes replicating previous results difficult. This indicates that research on community setting should be completed on a large scale and use a methodologically and theoretically sound design. The biggest strength of this study was the empirical design and the implications that has on future research on this topic.

**Limitations**

With all research, there are limitations to findings or the way the study was constructed and carried out. This endeavor is not unique in that regard it contained two noteworthy limitations. The limitations that are discussed are sample size and survey construction, malformed answers, and method.

**Sample size.** The issue, with likely the largest impact, is sample size. This study was able to obtain a sample size that was more than enough to produce significant results and is
considered representative of school psychologists based on their stratified NASP region. Even though the number of participants was enough to yield significant results; it may not be enough to produce noteworthy effect sizes or to detect the presence of all possible significant results. Considering that all of the NASP surveys of the field were able to establish a 70% response rate or better meaning that those surveys had a larger sample size, it is not surprising that these results cannot fully demonstrate or add to previous findings. It should be noted however, that this study employed methodologically sound and recommended procedures in the research design that were not present in previous research on this topic. Additionally, previously done rural research utilized small sample sizes and homogenous samples, which was not the case in this study.

Of particular note in this vein were the analyses that utilized the role and function matrix. Although there was a sufficient sample of participants from each region for the analyses, there may not have been enough participants contributing responses to each category in the role and function matrix. Inadequate distinction between community setting categories also contributed to limitations in some of the analyses related to limited sample size. This was demonstrated by low numbers of participants distinguishing themselves as inner city or urban and remote rural or rural. This meant that any comparisons of these groups were limited in ability to yield significant results.

Another difficulty was missing data and information. For example, if information was missing in regard to zip code it was easy to establish the missing information for a particular participant based on the predetermined zip code community setting. It was impossible, however, to fill in missing participant response data or increase responses in a certain category, thereby decreasing the possibility of obtaining significant results. Although missing data likely
contributed to a reduction in the likelihood of obtaining significant results most surveys were fully completed and were not missing substantial data.

An additional factor that reduced both the response rate and the sample size was that a graduate student without the resources, prestige, and exposure enjoyed by a large well-known research entity such as NASP or university level professors conducted the research. This likely led to the survey being discarded or forgotten by potential participants. There was little incentive to contribute to the research base due to a lack of professional community and comradery. Interestingly, a number of doctoral level school psychologists who wrote unsolicited encouraging notes to finish out the dissertation process and words of good luck was noticeable. It is possible that more doctoral school psychologists than would typically respond did indeed respond because they remember the experience of completing a dissertation.

Exacerbating the lack of professional affiliation was the low level of compensation for participation in the study. It is however probable that some compensation rather than no compensation at all did contribute to the response rate that was achieved. In addition, the aesthetics and ease-of-use of the survey contributed to response rate that was achieved. Luckily, the current research was able to use one already established and designed survey (i.e., MSQ–SF), and a professional graphic designer created the other survey (i.e., RRFS), thus reducing aesthetic and ease-of-use variables as contributing to a lower than anticipated response rate.

The use of the NCES Elementary/Secondary Information Database for the purposes of school psychologist participant recruitment might have contributed to limited response rate and sample size. Although this was a novel method to approach recruiting participants, it also had drawbacks. The main issues were that the survey was sent to a school district instead of being individually addressed to a school psychologist, the survey envelope was addressed *Attn: School*
Psychologist meaning that it was up to the district mailroom to route the mail, and only schools that were included in the NCES database were included for selection of participants. It is possible that school addresses had changed, the structure of the district was such that schools psychologists might not receive mail through the school district, and mail might have been delivered incorrectly or reached a dead end. In terms of undeliverable mail, fewer than six pieces of mail were returned to sender. When this occurred, the survey packet was addressed again with an updated address based on current information not available through the NCES database. This limitation most likely decreased the response rate, but it was the best option to access a large applicant pool, as there is no database containing contact information for school psychologists nationwide.

Survey construction, malformed responses, and method. A drawback of the research was construction of the survey packet. All previous research on response rates and recommendations from NASP indicated that paper mailed surveys gained higher response rates than did electronic surveys. Although this is a real consideration, paper mailed surveys contributed to errors in accuracy of responses and thus increased error in measurement. Due to some of the questions on the RRFS containing participant completion errors, the low level of significant findings was probably influenced by this limitation. Three questions on the RRFS contained a high percentage of participant errors. Those three questions were seven, eleven, and thirteen.

Question seven on the RRFS asked participants to identify whether they work for multiple school districts, one school district with a single contained K-12 campus, or a single district with multiple campuses. If the participants responded yes to single district with multiple campuses they were then asked to fill out a number of buildings grid for their district. This
question appeared easy to understand and straightforward, however 52 participants incorrectly answered the first part of the question, and 49 incorrectly answered the second part of the question. Although it is unknown why so many participants had difficulty with this question, possible reasons could be lack of attention to details, misunderstanding the question, not reading the question fully, assumptions about how to answer the question, or the difficulty in creating a question that would cover all possibilities of all schools in all states. A malformed response to this question could have affected the results by providing an inaccurate picture of the number of buildings school psychologists are serving which related to the analyses that assessed whether a school psychologist was considered in-house or traveling.

To answer question eleven, participants were asked to write in the number of students that they serve in all of the buildings in which they work. This question was completed incorrectly by 24.5% of the participants. Reasons for this could be that participants misunderstood the question and did not include all of the students in the buildings they served and only wrote in the number of students they work with out of the total student population. This was detected in most cases by the fact that the number of students written in for the building did not match the number of students in the entire school district in a logical way. An example of this is as follows: the participant completes the number of students in the school district as 2,000, but then for the question how many students do you serve in the buildings in which you work, the school psychologist answered twenty and indicated working in multiple buildings in the district. In this scenario, it is very unlikely that there are only twenty students in total across all the buildings in which the participant works.

The effect that this malformed answer had on the data analysis was that in some cases an accurate school psychologist to student ratio was either not possible to obtain or was sullied by
the malformed answer. Future projects should devise a mechanism to reduce this type of error, possibly asking the participant to estimate the school psychologist to student ratio would be a more appropriate future approach.

Question thirteen had the third highest percentage of malformed answers, with 15.9% of the participants making an error in answering this question. The role and function matrix on the RRFS was the thirteenth question. Participants answered this question incorrectly in two different ways. The first way was if the participants wrote a percentage in the other category but the explanation indicated that the percentage should have been placed in one of the established categories. When this occurred the percentage indicated in the other category was added to the appropriate category indicated within the twelve delineated roles and functions on the matrix. The second way in which this question was answered incorrectly was if the participants’ total percentage was under or over 100%. When this occurred a prorated score was calculated. The prorated score was then used in the analyses.

The shifting of percentages from the other category to the correct category on the role and function matrix likely had very little influence on the analyses and results. However, prorating total percentage scores and the corresponding category scores likely did have an effect on the results. It is possible that participants made typographical errors, misread a section, or miscalculated a section. Those errors would then lead to the recording of malformed percentages, which would then necessitate proration. This could mean that individual role and function categories may be under or over represented in the analyses and results.

The following were ways answers were considered malformed: unnecessarily or incorrectly completed an answer, left an answer blank, or provided an answer that needed to be adjusted based on other survey responses. See Figure 3, for the percentages of questions that
required adjustment, prorated scores, or were malformed responses. If the survey was electronically designed, there would have been more control over the presentation of questions, as well as the ability to imbed forced choice responses.

Another consideration in regard to the paper-mailed format of the survey packet was perhaps this method is not the best method for exploring this particular topic, particularly when it came to question thirteen which was the role and function matrix on the RRFS. It is very likely that a high level of non-significant results in relation to this question and its addition to the analyses stems from lower percentages for the all of the roles, except percentage of time spent in special education assessment. Additionally, the reliance on participants to accurately estimate and determine how much time they spent in varying roles and functions probably increased inaccuracy. Of special consideration is that the participant may spread time spent on various activities throughout the day, month, or even year. A way to improve results might be the addition of more participants or a different sampling method. This might increase validity of the results and the quality of the responses.

Future Directions

The focus of future research could be centered on three areas of interest that emerged from this study. The three areas are methodological design of community setting research, rural vs. remote rural differences, and optimal number of school psychologists.

Methodological design of community setting research. The first area which should be given primary consideration in future projects is the methodological design of community setting research. Painstaking measures were used to address all criticisms of previously completed community setting research in relation to school psychologists and other fields. It was a great undertaking, but the specificity raised the empirical design and gave credibility to the presence of
significant results. Far too many studies assume self-identified community setting as enough when exploring community setting based phenomena. Self-identification is most likely used out of convenience. However the tradeoff for convenience over science is enormous, mainly sacrificing generalizability and uncovering actual predictors and relationships. Further studies should attempt to increase response rate and sample size, which would help address issues surrounding significance of results.

Some ways to address response rate and sample size are to sample more participants in the beginning of the study and to use a hybrid approach to surveying participants. The hybrid approach would include both physical paper mailings and electronic surveys. In this way more potential participants could be reached with less cost as well as increasing the accuracy of the results by using forced choice questions as well as only presenting items that are necessary for participants to answer based on their answers to previous questions. A way to accomplish this would be through mailed post cards to potential participants inviting them to access an online link by personal computer or electronic hand held device (e.g., smart phone or tablet). Additionally, phone surveying, e-mail/listserv surveying, and social media surveying methods should be considered.

Also, the manner in which questions are posed to participants should be evaluated, in particular the percentage of time spent in a role or function matrix. While convenient, it may be too difficult, abstract, tiresome, or restrictive to gain a full understanding of how school psychologists are spending their time. The addition of the percentage of time reference table likely contributed to more accurate results, but perhaps there are even better ways to survey participants. Possible options include phone surveying or asking participants to keep a daily or
monthly log of percentage of time spent in a certain role or function. The addition of time spent traveling should be incorporated into the role and function matrix.

**Rural vs. remote rural differences.** The second area that should be further explored is rural vs. remote rural. Is there really a quantitative difference between practitioners in these two types of community settings, or is the difference more closely related to the number of buildings the school psychologist serves and the size of the school district? Furthermore, are differences between community settings more accurately described by factors such as time spent traveling from building to building, in-house vs. traveling job assignments, number of buildings a school psychologist serves, number of districts a school psychologist serves, or other factors like connection with colleagues or supervisor directives?

**Optimal number of school psychologists.** Finally, the third research area relates to the optimal number of school psychologists for an individual system. Perhaps there are differences based on community setting, or perhaps this is based on the number of students and buildings in the district. It is likely that some combination of all of these factors contribute. NASP is emphasizing a new standard of one school psychologist to 500-700 students. In this current study, the ratio did not appear to have an impact on any of the analysis, but this does not mean that the ratio it is not important. Perhaps ratio is more important in the context of number of buildings a school psychologist serves. For example, there may be a difference in role and function of a school psychologist who is stationed in one building in a district serving 500 children in comparison to a school psychologist who is serving two school districts with two school buildings in each district, and 500 students total between the school districts. On the surface, the school psychologists are within the NASP recommended ratio but responsibilities between the two school psychologists are much different.
In that same vein, there might be differences between school psychologists who primarily work with a particular age group and how that might influence role and function in differing community settings. In addition, the difference in role and function may simply be related to the demands of the main grade levels in which the school psychologist works. For example, a school psychologist who predominantly works with elementary age children might spend more time in a prevention, intervention, and consultation role than a school psychologist who primarily works with high school age students, where the focus may be on reevaluation and resolution of social issues. Alternatively, do non-NASP members according to community setting differ significantly from NASP members according to community setting? This is not a question that could be answered in this research due to sample size, but is an important future direction.

**Implications for Practice**

School psychologist advocates such as NASP, school psychologist state associations, and school psychologist graduate trainers will find this line of research most applicable. NASP and other advocate groups should use the research presented here as a spring board to reevaluate the way in which surveying the needs and roles and functions of the field at large is conducted, especially in the context of community setting and possible differences in practice. As such, implications for practice should also be considered.

One of the major findings in this study was that when *remote rural* was defined as a single campus K-12 building, school psychologists in those settings had a more diverse role. NASP supports a diversified scope of practice, and perhaps advocacy efforts should emphasize the importance of assigning one school psychologist per building (and more in a building if the
ratio is higher than the NASP recommended level) in addition to lowering the school psychologist to student ratio.

Graduate school programs and specifically graduate trainers should be cautious about advertising their programs as specializing in a particular community setting bound practice or specialty. Much more research is needed to establish that there is a quantitative difference between the practices of school psychology in specific community settings. For now, graduate programs should focus on training professionals to use critical thinking and problem-solving skills so that those professionals can transfer their skills to any environment in which they work seamlessly. This does not mean that graduate programs should not try to establish community setting practice differences or specializations; rather it calls on graduate programs to quantify the differences and demonstrate the uniqueness of working in a specific community setting.

**Conclusion**

Community setting differences are important considerations for school psychologists as they enter the field and as they continue to practice. Community setting differences have the potential to interest a practitioner to live or work in a certain location. The goal remains the same, for school psychologists to promote and engage in a diversified role and model of service delivery. It is important for practitioners to have a deep understanding of the population they serve and the unique needs of that population. The most important aspect for the field to consider may not be what makes school psychologists in diverse community settings similar or different. Rather, what influence does community setting have on the students with which school psychologists work? At a time where there is a nationwide shortage of school psychologists, all interested parties need to be abreast of changes in the field and promote and advocate for a diversified role that spans the spectrum of school psychological services. Raising
awareness about the services school psychologists can provide will help inform the educational arena in which they work and ultimately help the students they serve.
References


Rural Assistance Center. (2012). What is Rural? Retrieved from
http://www.raonline.org/topics/what-is-rural/


Table 1

*School District Community Setting by Specific Population Sample*

<table>
<thead>
<tr>
<th>Domain</th>
<th>Level</th>
<th>Number of Schools</th>
<th>Percentage of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCES Public Schools</td>
<td>Urban</td>
<td>1472</td>
<td>9.4</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>3192</td>
<td>20.5</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>10460</td>
<td>67.2</td>
</tr>
<tr>
<td></td>
<td>Undeterminable</td>
<td>431</td>
<td>2.7</td>
</tr>
<tr>
<td>Participant Recruitment Sample</td>
<td>Urban</td>
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<td>10</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>417</td>
<td>20.8</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>1378</td>
<td>68.9</td>
</tr>
<tr>
<td></td>
<td>Undeterminable</td>
<td>4</td>
<td>.2</td>
</tr>
<tr>
<td>Participant Respondent Sample</td>
<td>Urban</td>
<td>21</td>
<td>9.5</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
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<td>18.6</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
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<td>71.8</td>
</tr>
<tr>
<td></td>
<td>Undeterminable</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. Community setting was determined using the Great Data zip code database.
Table 2

Demographic Data of Participants

<table>
<thead>
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<th>Domain</th>
<th>Level</th>
<th>Number of Participants</th>
<th>Percentage of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
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<td>18.2</td>
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<tr>
<td></td>
<td>Female</td>
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<td>80.5</td>
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<td>0</td>
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<tr>
<td></td>
<td>Alaska Native</td>
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<td>0</td>
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<td>.5</td>
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<td>.5</td>
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<td>Native Hawaiian</td>
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<td>0</td>
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<td></td>
<td>White</td>
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<td>90.9</td>
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<td></td>
<td>Multiple Ethnicities</td>
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<td>2.7</td>
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<tr>
<td></td>
<td>Other</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>Age in Years</td>
<td>25 – 30</td>
<td>36</td>
<td>16.4</td>
</tr>
<tr>
<td></td>
<td>31 – 40</td>
<td>66</td>
<td>30</td>
</tr>
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<td></td>
<td>41 – 50</td>
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<td>19.1</td>
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<td></td>
<td>61 – 70</td>
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<td></td>
<td>71 or older</td>
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<td>.5</td>
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<tr>
<td>Highest Degree in School Psychology</td>
<td>Master’s$^a$</td>
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<td></td>
<td>Specialist$^b$</td>
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<td>60.5</td>
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<tr>
<td></td>
<td>Doctorate$^c$</td>
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<td>15.9</td>
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<td>.5</td>
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Table 2, Continued

<table>
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<th>Years of Experience in School Psychology</th>
<th>1 – 5</th>
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<th>22.7</th>
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<tr>
<td>6 – 10</td>
<td>42</td>
<td></td>
<td>19.1</td>
</tr>
<tr>
<td>11 – 15</td>
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<td></td>
<td>18.2</td>
</tr>
<tr>
<td>16 – 20</td>
<td>31</td>
<td></td>
<td>14.1</td>
</tr>
<tr>
<td>21 – 25</td>
<td>20</td>
<td></td>
<td>9.1</td>
</tr>
<tr>
<td>26 – 30</td>
<td>17</td>
<td></td>
<td>7.7</td>
</tr>
<tr>
<td>31 – 35</td>
<td>13</td>
<td></td>
<td>5.9</td>
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<td>36 – 40</td>
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<td>1.8</td>
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<tr>
<td>41 or more</td>
<td>0</td>
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<td>0</td>
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<table>
<thead>
<tr>
<th>Professional Membership</th>
<th>State School Psychology Association</th>
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<th>52.7</th>
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<tbody>
<tr>
<td></td>
<td>State Psychological Association</td>
<td>7</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Regional School Psychology Association</td>
<td>18</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>Regional Psychological Association</td>
<td>5</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>National Association of School Psychologists (NASP)</td>
<td>125</td>
<td>56.8</td>
</tr>
<tr>
<td></td>
<td>American Psychological Association (APA)</td>
<td>10</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>Division of School Psychology (16); APA</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>10</td>
<td>4.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional Credential(s)/Licensure(s)</th>
<th>Nationally Certified School Psychologist (NCSP)</th>
<th>84</th>
<th>38.2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Certified School Psychologist</td>
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<td>83.2</td>
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<td></td>
<td>Certified Psychometerist/similar title</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Licensed School Psychologist, Doctoral</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Licensed Psychologist, Doctoral</td>
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<td>6.4</td>
</tr>
<tr>
<td></td>
<td>Licensed School Psychologist, non-doctoral</td>
<td>29</td>
<td>13.2</td>
</tr>
<tr>
<td></td>
<td>Licensed Psychological Associate/ similar title (non-doctoral)</td>
<td>4</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>24</td>
<td>10.9</td>
</tr>
</tbody>
</table>

*Note.* The following additional information was given to participants: a.e.g., MA, MS, M.ED.; b.e.g., 60+ graduate credits, CAS, Ed.S.; c.e.g., Ph.D., Psy.D., Ed.D.
Table 3

*Response Rate of Participants by NASP Region*

<table>
<thead>
<tr>
<th>Domain</th>
<th>Level</th>
<th>Number of Participants</th>
<th>Percentage of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASP Region</td>
<td>Central</td>
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<td>23.2</td>
</tr>
<tr>
<td></td>
<td>Northeast</td>
<td>87</td>
<td>39.5</td>
</tr>
<tr>
<td></td>
<td>Southeast</td>
<td>46</td>
<td>20.9</td>
</tr>
<tr>
<td></td>
<td>Western</td>
<td>36</td>
<td>16.4</td>
</tr>
</tbody>
</table>
### Table 4

**MSQ – SF School Psychologist Perceived Job Satisfaction**

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Very Dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Being able to keep busy all the time</td>
<td>.9%</td>
<td>1.8%</td>
<td>3.2%</td>
<td>51.4%</td>
<td>40.5%</td>
<td>4.31</td>
<td>.71</td>
</tr>
<tr>
<td>2. The chance to work alone on the job</td>
<td>0%</td>
<td>3.2%</td>
<td>8.2%</td>
<td>56.4%</td>
<td>30%</td>
<td>4.15</td>
<td>.70</td>
</tr>
<tr>
<td>3. The chance to do different things from time to time</td>
<td>1.4%</td>
<td>9.1%</td>
<td>5.5%</td>
<td>44.1%</td>
<td>38.2%</td>
<td>4.10</td>
<td>.96</td>
</tr>
<tr>
<td>4. The chance to be “somebody” in the community</td>
<td>1.4%</td>
<td>5.9%</td>
<td>30.5%</td>
<td>44.1%</td>
<td>15.9%</td>
<td>3.68</td>
<td>.86</td>
</tr>
<tr>
<td>5. The way my boss handles his/her workers</td>
<td>7.3%</td>
<td>14.1%</td>
<td>17.7%</td>
<td>38.2%</td>
<td>20.9%</td>
<td>3.52</td>
<td>1.18</td>
</tr>
<tr>
<td>6. The competence of my supervisor in making decisions</td>
<td>5.9%</td>
<td>14.1%</td>
<td>18.2%</td>
<td>37.7%</td>
<td>22.3%</td>
<td>3.57</td>
<td>1.16</td>
</tr>
<tr>
<td>7. Being able to do things that don’t go against my conscience</td>
<td>.5%</td>
<td>4.5%</td>
<td>10.5%</td>
<td>50%</td>
<td>32.3%</td>
<td>4.11</td>
<td>.80</td>
</tr>
<tr>
<td>8. The way my job provides for steady employment</td>
<td>.5%</td>
<td>2.3%</td>
<td>2.7%</td>
<td>35.9%</td>
<td>56.4%</td>
<td>4.48</td>
<td>.70</td>
</tr>
<tr>
<td>9. The chance to do things for other people</td>
<td>0%</td>
<td>1.8%</td>
<td>5.5%</td>
<td>37.7%</td>
<td>53.2%</td>
<td>4.49</td>
<td>.68</td>
</tr>
<tr>
<td>10. The chance to tell people what to do</td>
<td>1.4%</td>
<td>3.2%</td>
<td>54.1%</td>
<td>33.6%</td>
<td>5.5%</td>
<td>3.39</td>
<td>.70</td>
</tr>
<tr>
<td>11. The chance to do something that makes use of my abilities</td>
<td>2.3%</td>
<td>9.1%</td>
<td>3.6%</td>
<td>40.9%</td>
<td>42.3%</td>
<td>4.13</td>
<td>1.01</td>
</tr>
<tr>
<td>12. The way company policies are put into practice</td>
<td>5%</td>
<td>25.9%</td>
<td>28.6%</td>
<td>35%</td>
<td>3.6%</td>
<td>3.06</td>
<td>.98</td>
</tr>
<tr>
<td>13. My pay and the amount of work I do</td>
<td>6.8%</td>
<td>26.4%</td>
<td>12.7%</td>
<td>43.2%</td>
<td>9.1%</td>
<td>3.21</td>
<td>1.14</td>
</tr>
<tr>
<td>14. The chances for advancement on this job</td>
<td>8.2%</td>
<td>20.5%</td>
<td>36.4%</td>
<td>29.1%</td>
<td>2.7%</td>
<td>2.97</td>
<td>.98</td>
</tr>
<tr>
<td>15. The freedom to use my own judgment</td>
<td>.9%</td>
<td>1.8%</td>
<td>7.7%</td>
<td>48.2%</td>
<td>39.5%</td>
<td>4.25</td>
<td>.75</td>
</tr>
<tr>
<td>16. The chance to try my own methods of doing the job</td>
<td>.5%</td>
<td>4.5%</td>
<td>7.3%</td>
<td>53.2%</td>
<td>32.3%</td>
<td>4.14</td>
<td>.78</td>
</tr>
<tr>
<td>17. The working conditions</td>
<td>1.8%</td>
<td>9.5%</td>
<td>10%</td>
<td>51.4%</td>
<td>25.5%</td>
<td>3.90</td>
<td>.95</td>
</tr>
<tr>
<td>18. The way co-workers get along with each other</td>
<td>2.3%</td>
<td>7.3%</td>
<td>11.8%</td>
<td>53.2%</td>
<td>23.6%</td>
<td>3.90</td>
<td>.92</td>
</tr>
<tr>
<td>19. The praise I get for doing a good job</td>
<td>5.5%</td>
<td>10.9%</td>
<td>15.9%</td>
<td>44.1%</td>
<td>21.8%</td>
<td>3.67</td>
<td>1.10</td>
</tr>
<tr>
<td>20. The feeling of accomplishment I get from the job</td>
<td>.9%</td>
<td>6.4%</td>
<td>12.3%</td>
<td>44.1%</td>
<td>34.1%</td>
<td>4.06</td>
<td>.90</td>
</tr>
</tbody>
</table>

*Note.* The MSQ – SF is Copyright 1977, Vocational Psychology Research, University of Minnesota. Reproduced by permission, see Appendix C.
### Table 5

**One-way ANOVA Comparing Means between Time Spent\(^a\) in a Role and Function and Community Setting\(^b\): Primary Analysis**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean and (Standard Deviation)</th>
<th>ANOVA</th>
<th>Fisher’s LSD Post Hoc Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban (n = 21)</td>
<td>Suburban (n = 41)</td>
<td>Rural (n = 156)</td>
</tr>
<tr>
<td>1. Assessment Activities Related to Special Education</td>
<td>39.46 (28.32)</td>
<td>46.56 (26.87)</td>
<td>52.2 (23.19)</td>
</tr>
<tr>
<td>2. Assessment Activities Related to General Education</td>
<td>4.7 (6.28)</td>
<td>9.58 (26.87)</td>
<td>8.35 (8.93)</td>
</tr>
<tr>
<td>3. Systems Consultation</td>
<td>5.36 (5.35)</td>
<td>5.77 (10.11)</td>
<td>5.95 (6.96)</td>
</tr>
<tr>
<td>4. Individual Consultation</td>
<td>12.95 (9.15)</td>
<td>9.88 (6.77)</td>
<td>9.6 (7.59)</td>
</tr>
<tr>
<td>5. Individually Administered Interventions</td>
<td>5.6 (8.35)</td>
<td>3.24 (8.04)</td>
<td>3.29 (5.8)</td>
</tr>
<tr>
<td>6. Individual/Group Counseling</td>
<td>6.09 (9.46)</td>
<td>5.34 (4.9)</td>
<td>5.91 (9.91)</td>
</tr>
<tr>
<td>7. Curriculum/Program Development</td>
<td>2.5 (3.87)</td>
<td>1.91 (7.54)</td>
<td>1.55 (2.77)</td>
</tr>
<tr>
<td>8. Research/Program Evaluation</td>
<td>1.34 (2.07)</td>
<td>1.73 (2.92)</td>
<td>1.95 (3.02)</td>
</tr>
<tr>
<td>9. Providing Supervision</td>
<td>3.68 (7.12)</td>
<td>4.26 (2.65)</td>
<td>1.57 (3.21)</td>
</tr>
<tr>
<td>10. Participating in Supervision</td>
<td>1.21 (2.66)</td>
<td>1.94 (7.59)</td>
<td>0.44 (1.66)</td>
</tr>
<tr>
<td>11. Administrative Activities</td>
<td>9.42 (16.38)</td>
<td>4.6 (9.63)</td>
<td>3.82 (9.96)</td>
</tr>
<tr>
<td>12. Continuing Education Activities</td>
<td>4.43 (4.02)</td>
<td>3.11 (6.75)</td>
<td>3.2 (3.09)</td>
</tr>
<tr>
<td>13. Other</td>
<td>2.85 (7.17)</td>
<td>2.21 (8.29)</td>
<td>2.03 (6.67)</td>
</tr>
</tbody>
</table>

*Note. *\(^a\)Percentage of time and *\(^b\)Community Setting used the Great Data zip code database for the comparison.*

*\(^p<.05. **\(^p<.001.*
Table 6

**RRFS Role and Function Matrix as Percentages**

<table>
<thead>
<tr>
<th>Role and Function</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assessment Activities Related to Special Education(a)</td>
<td>49.97</td>
<td>24.65</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>2. Assessment Activities Related to General Education(b)</td>
<td>8.23</td>
<td>9.00</td>
<td>0</td>
<td>60</td>
</tr>
<tr>
<td>3. Systems Consultation(c)</td>
<td>5.86</td>
<td>6.76</td>
<td>0</td>
<td>53</td>
</tr>
<tr>
<td>4. Individual Consultation(d)</td>
<td>9.98</td>
<td>7.86</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>5. Individually Administered Interventions(e)</td>
<td>3.51</td>
<td>5.95</td>
<td>0</td>
<td>52</td>
</tr>
<tr>
<td>6. Individual/Group Counseling(f)</td>
<td>5.82</td>
<td>9.43</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>7. Curriculum/Program Development(g)</td>
<td>1.71</td>
<td>2.92</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>8. Research/Program Evaluation(b)</td>
<td>1.85</td>
<td>2.87</td>
<td>0</td>
<td>22.12</td>
</tr>
<tr>
<td>9. Providing Supervision(i)</td>
<td>2.28</td>
<td>4.89</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>10. Participating in Supervision(j)</td>
<td>.79</td>
<td>4.48</td>
<td>0</td>
<td>61.70</td>
</tr>
<tr>
<td>11. Administrative Activities(k)</td>
<td>4.49</td>
<td>10.32</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>12. Continuing Education Activities(l)</td>
<td>3.30</td>
<td>3.32</td>
<td>0</td>
<td>18.60</td>
</tr>
<tr>
<td>13. Other</td>
<td>2.15</td>
<td>7.02</td>
<td>0</td>
<td>50</td>
</tr>
</tbody>
</table>

*Note.* \((n = 218)\). The following additional information was given for each role and function on the matrix: \(a\) e.g., cognitive, achievement, FBA/BIP, report writing, special education meetings; \(b\) e.g., universal screening and pre-referral teams related to academic, behavioral, social, emotional concerns; \(c\) e.g., RtI initiatives, school-wide prevention initiatives, crisis prevention initiatives, PBIS initiatives, overall school system functioning; \(d\) e.g., teacher, parent, peer, individual administrator; \(e\) e.g., behavioral, academic; \(f\) e.g., working with a student(s) using therapeutic techniques; \(g\) e.g., developing or exploring new academic, behavioral, or social-emotional curricula or programs for your school to utilize; \(h\) e.g., carrying out a study, reading research articles to inform practice, reviewing the effectiveness of a program; \(i\) e.g., school psychologists, paraprofessionals, school psychology interns, practicum students; \(j\) e.g., group/individual supervision by a licensed/senior psychologist or administrator; \(k\) e.g., duties and activities not normally associated with school psychology such as handling discipline referrals or doing staff observations; and \(l\) e.g., attending conferences, attending in-service training, providing trainings to others.
Table 7

Average Number of Roles and Functions, Number of Buildings, and School Psychologist-to-Student Ratio by Community Setting

<table>
<thead>
<tr>
<th>Domain</th>
<th>Level</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roles and Functions</td>
<td>Urban</td>
<td>7.23</td>
<td>2.62</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>7.29</td>
<td>2.48</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>7.05</td>
<td>2.12</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Number of Buildings</td>
<td>Urban</td>
<td>5.15</td>
<td>5.55</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>5.55</td>
<td>10.84</td>
<td>1</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>4.12</td>
<td>3.98</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>School Psychologist-to-Student Ratio</td>
<td>Urban</td>
<td>1410.13</td>
<td>1780.2</td>
<td>250</td>
<td>8000</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>1673.93</td>
<td>1821.18</td>
<td>125</td>
<td>10000</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>1246.83</td>
<td>880.46</td>
<td>200</td>
<td>5000</td>
</tr>
</tbody>
</table>

*Note.* Community settings are from the *Great Data* zip code database. There were a total of 13 roles and functions that participants could indicate that they engage in. The 13th role and function on the matrix was the category *other.* For the school psychologist-to-student ratio the number of school psychologists is one.
### One-way ANOVA Comparing Means between Job Satisfaction and Community Setting: Primary Analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean and (Standard Deviation)</th>
<th>ANOVA</th>
<th>Fisher’s LSD Post Hoc Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban (n = 21)</td>
<td>Suburban (n = 41)</td>
<td>Rural (n = 154)</td>
</tr>
<tr>
<td>Percentile Rank</td>
<td>51.95 (32.47)</td>
<td>40.31 (29.50)</td>
<td>52.63 (27.87)</td>
</tr>
</tbody>
</table>

*Note.* Community setting was determined using the Great Data zip code database.

*p < .05. **p < .001.
Table 9

*Multiple Regression between Time Spent Outside of Special Education Assessment and Four Domains: Primary Analysis*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Standard Error</td>
</tr>
<tr>
<td>Job Assignment</td>
<td>16.229</td>
<td>4.978</td>
</tr>
<tr>
<td>Urban</td>
<td>9.025</td>
<td>6.264</td>
</tr>
<tr>
<td>Suburban</td>
<td>5.293</td>
<td>4.364</td>
</tr>
<tr>
<td>Ratio</td>
<td>1993.517</td>
<td>1974.909</td>
</tr>
</tbody>
</table>

**Overall Model**

\[ R^2 = .125 \]

Adjusted \( R^2 = .106 \)

\[ F = 6.732 \]

\( p < .001^{**} \)

*Note.* Community settings are from the *Great Data* zip code database. Ratio refers to the school psychologist-to-student ratio for the entire school district or districts the school psychologist serves.

*\( p < .05. \)  **\( p < .001. \)
### Table 10

*Multiple Regression between Total Number of Roles and Four Domains: Primary Analysis*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Standard Error</td>
</tr>
<tr>
<td>Job Assignment</td>
<td>.509</td>
<td>.499</td>
</tr>
<tr>
<td>Urban</td>
<td>.250</td>
<td>.635</td>
</tr>
<tr>
<td>Suburban</td>
<td>.336</td>
<td>.443</td>
</tr>
<tr>
<td>Ratio</td>
<td>35.906</td>
<td>200.238</td>
</tr>
</tbody>
</table>

**Overall Model**

\[ R^2 = .014 \]

Adjusted \[ R^2 = -.007 \]

\[ F = .668 \]

\[ p = .615 \]

*Note. Community settings are from the *Great Data* zip code database. Ratio refers to the school psychologist-to-student ratio for the entire school district or districts the school psychologist serves.*

*p < .05. **p < .001.*
Table 11

*Job Assignment by Community Setting*

<table>
<thead>
<tr>
<th>Domain</th>
<th>Level</th>
<th>Number of Participants</th>
<th>Percentage of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-house</td>
<td>Urban</td>
<td>8</td>
<td>38.1</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>9</td>
<td>22.0</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>27</td>
<td>17.1</td>
</tr>
<tr>
<td>Traveling</td>
<td>Urban</td>
<td>12</td>
<td>57.1</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>31</td>
<td>75.6</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>128</td>
<td>81.0</td>
</tr>
</tbody>
</table>

*Note.* Community settings are from the *Great Data* zip code database. An in-house job assignment indicates that the school psychologist is assigned to one building or a single campus K-12 building. A traveling job assignment indicates that the school psychologist is assigned to more than one school building in a single district or multiple districts.
Table 12

*Independent Samples t Test Comparing Means between Time Spent Outside Special Education and Assessment and Self-Identified Degree of Ruralness*: Primary Analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rural ((n = 141))</th>
<th>Remote Rural ((n = 12))</th>
<th>(t)</th>
<th>(p)</th>
<th>(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of time</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>46.13</td>
<td>22.51</td>
<td>58.33</td>
<td>23.67</td>
<td>-1.79</td>
</tr>
</tbody>
</table>

*Note.* *Degree of ruralness was based on the participants self-identified community setting as endorsed on question number 8 on the RRFS.*

*\(p < .05\). **\(p < .001\).*
Table 13

*Multiple Regression between Job Satisfaction and Six Domains: Primary Analysis*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Standard Error</td>
</tr>
<tr>
<td>Number of Roles</td>
<td>.608</td>
<td>1.013</td>
</tr>
<tr>
<td>Job Assignment</td>
<td>5.877</td>
<td>6.187</td>
</tr>
<tr>
<td>Ratio</td>
<td>-1883.786</td>
<td>2369.844</td>
</tr>
<tr>
<td>Time outside of special education assessment</td>
<td>.175</td>
<td>.098</td>
</tr>
<tr>
<td>Urban</td>
<td>-7.754</td>
<td>7.545</td>
</tr>
<tr>
<td>Suburban</td>
<td>-14.682</td>
<td>5.239</td>
</tr>
</tbody>
</table>

Overall Model

R² = .071
Adjusted R² = .041
F = 2.334
p = .033*

*Note. Community settings are from the Great Data zip code database. Ratio refers to the school psychologist-to-student ratio for the entire school district or districts the school psychologist serves. Time outside of special education assessment is a percentage.*

*p < .05. **p < .001.
Table 14

*Zip Code Community Setting vs. Self-Identified Community Setting.*

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Self-Identified</th>
<th>Number of Participants</th>
<th>Percentage of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inner City</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban</td>
<td>2</td>
<td>2</td>
<td>10.5</td>
</tr>
<tr>
<td>Suburban</td>
<td>14</td>
<td>14</td>
<td>73.6</td>
</tr>
<tr>
<td>Rural</td>
<td>3</td>
<td>3</td>
<td>15.7</td>
</tr>
<tr>
<td>Remote Rural</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Suburban</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inner City</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban</td>
<td>5</td>
<td>5</td>
<td>12.8</td>
</tr>
<tr>
<td>Suburban</td>
<td>20</td>
<td>20</td>
<td>51.2</td>
</tr>
<tr>
<td>Rural</td>
<td>14</td>
<td>14</td>
<td>35.8</td>
</tr>
<tr>
<td>Remote Rural</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Rural</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inner City</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban</td>
<td>1</td>
<td>1</td>
<td>.65</td>
</tr>
<tr>
<td>Suburban</td>
<td>15</td>
<td>15</td>
<td>9.8</td>
</tr>
<tr>
<td>Rural</td>
<td>124</td>
<td>124</td>
<td>81</td>
</tr>
<tr>
<td>Remote Rural</td>
<td>13</td>
<td>13</td>
<td>8.4</td>
</tr>
</tbody>
</table>

*Note.* The domain zip code community setting n = 220. The domain self-identified community setting n = 211, with 9 data points classified as missing and not included in the analysis.
Table 15

One-way ANOVA Comparing Means between Time Spent in a Role and Function and Community Setting: Secondary Analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean and (Standard Deviation)</th>
<th>ANOVA</th>
<th>Fisher’s LSD Post Hoc Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban (n = 8)</td>
<td>Suburban (n = 48)</td>
<td>Rural (n = 153)</td>
</tr>
<tr>
<td>1. Assessment Activities Related to Special Education</td>
<td>39.37 (22.74)</td>
<td>40.96 (27.97)</td>
<td>52.91 (22.76)</td>
</tr>
<tr>
<td>2. Assessment Activities Related to General Education</td>
<td>8.12 (7.98)</td>
<td>8.82 (10.07)</td>
<td>7.82 (7.76)</td>
</tr>
<tr>
<td>3. Systems Consultation</td>
<td>8.37 (5.44)</td>
<td>6.49 (7.71)</td>
<td>5.69 (6.62)</td>
</tr>
<tr>
<td>4. Individual Consultation</td>
<td>8.75 (5.53)</td>
<td>12.12 (9.42)</td>
<td>9.55 (7.53)</td>
</tr>
<tr>
<td>5. Individually Administered Interventions</td>
<td>7.5 (9.63)</td>
<td>4.4 (6.1)</td>
<td>3.14 (5.73)</td>
</tr>
<tr>
<td>6. Individual/Group Counseling</td>
<td>1.25 (3.53)</td>
<td>7.61 (9.64)</td>
<td>5.73 (9.71)</td>
</tr>
<tr>
<td>7. Curriculum/Program Development</td>
<td>2 (3.66)</td>
<td>2.1 (3.28)</td>
<td>1.64 (2.84)</td>
</tr>
<tr>
<td>8. Research/Program Evaluation</td>
<td>2.37 (2.87)</td>
<td>1.6 (2.45)</td>
<td>1.88 (3.02)</td>
</tr>
<tr>
<td>9. Providing Supervision</td>
<td>5.62 (8.21)</td>
<td>2.85 (5.64)</td>
<td>2.01 (4.49)</td>
</tr>
<tr>
<td>10. Participating in Supervision</td>
<td>0 (0)</td>
<td>.761 (1.72)</td>
<td>.482 (1.79)</td>
</tr>
<tr>
<td>11. Administrative Activities</td>
<td>6.87 (9.97)</td>
<td>6.58 (10.66)</td>
<td>3.94 (10.45)</td>
</tr>
<tr>
<td>12. Continuing Education Activities</td>
<td>4.12 (3.13)</td>
<td>3.27 (3.75)</td>
<td>3.32 (3.26)</td>
</tr>
<tr>
<td>13. Other</td>
<td>5.62 (13.99)</td>
<td>2.4 (7.64)</td>
<td>1.81 (6.31)</td>
</tr>
</tbody>
</table>

Note. *Percentage of time and †Community Setting used self-identified community setting for the comparison.

*p < .05. **p < .001
### Table 16

*One-way ANOVA Comparing Means between Job Satisfaction and Community Setting: Secondary Analysis*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean and Standard Deviation</th>
<th>ANOVA</th>
<th>Fisher’s LSD Post Hoc Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban $(n = 8)$</td>
<td>Suburban $(n = 48)$</td>
<td>Rural $(n = 151)$</td>
</tr>
<tr>
<td>Percentile Rank</td>
<td>40.3 (26.17)</td>
<td>43.77 (27.73)</td>
<td>53.6 (29.06)</td>
</tr>
</tbody>
</table>

*Note.* Community setting was determined using participant self-identified community setting.

*p < .05. **p < .001.
Table 17
Multiple Regression between Time Spent Outside of Special Education Assessment and Four Domains: Secondary Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Standard Error</td>
</tr>
<tr>
<td>Job Assignment</td>
<td>15.459</td>
<td>4.950</td>
</tr>
<tr>
<td>Urban</td>
<td>16.066</td>
<td>9.052</td>
</tr>
<tr>
<td>Suburban</td>
<td>8.601</td>
<td>4.161</td>
</tr>
<tr>
<td>Ratio</td>
<td>2219.311</td>
<td>1947.692</td>
</tr>
</tbody>
</table>

Overall Model

\[ R^2 = .147 \]

Adjusted \( R^2 = .128 \)

\[ F = 7.856 \]

\( p < .001^{**} \)

*Note. Community setting is based on participant self-identification and collapsing the variable inner city and urban into urban and collapsing the variables remote rural and rural into rural. Ratio refers to the school psychologist-to-student ratio for the entire school district or districts the school psychologist serves.

*p < .05. **p < .001.
Table 18

*Multiple Regression between Total Number of Roles and Four Domains: Secondary Analysis*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Standard Error</td>
</tr>
<tr>
<td>Job Assignment</td>
<td>.795</td>
<td>.494</td>
</tr>
<tr>
<td>Urban</td>
<td>.488</td>
<td>.903</td>
</tr>
<tr>
<td>Suburban</td>
<td>-1.05</td>
<td>.415</td>
</tr>
<tr>
<td>Ratio</td>
<td>-20.094</td>
<td>1494.224</td>
</tr>
</tbody>
</table>

Overall Model

\[ R^2 = .019 \]
\[ \text{Adjusted } R^2 = -.002 \]
\[ F = .897 \]
\[ p = .467 \]

*Note. Community settings are based on participant self-identification and collapsing the variable *inner city* and *urban* into *urban* and collapsing the variables *remote rural* and *rural* into *rural*. Ratio refers to the school psychologist-to-student ratio for the entire school district or districts the school psychologist serves.*

*p < .05. **p < .001.
Table 19

**Independent Samples t Test Comparing Means between Time Spent Outside Special Education and Assessment and Researcher-Identified Degree of Ruralness**: Secondary Analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rural (n = 138)</th>
<th>Remote Rural (n = 19)</th>
<th>t</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of time</td>
<td>Mean 22.36</td>
<td>Mean 20.40</td>
<td>3.77</td>
<td>.001**</td>
<td>.8</td>
</tr>
</tbody>
</table>

*Note.* Degree of ruralness was conceptualized as *rural* being a collapsed variable made up of participant self-identification as rural or remote rural and *remote rural* was redefined as any participant who served a single campus K-12 school (Jerrell, 1984).

*p < .05. **p < .001.*
Table 20

Multiple Regression between Total Number of Roles and Seven Domains: Secondary Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Standard Error</td>
</tr>
<tr>
<td>Number of Roles</td>
<td>.194</td>
<td>1.045</td>
</tr>
<tr>
<td>Job Assignment</td>
<td>5.528</td>
<td>6.255</td>
</tr>
<tr>
<td>Ratio</td>
<td>-1526.807</td>
<td>2390.391</td>
</tr>
<tr>
<td>Time outside of special education assessment</td>
<td>.207</td>
<td>.104</td>
</tr>
<tr>
<td>Urban</td>
<td>-15.557</td>
<td>11.128</td>
</tr>
<tr>
<td>Suburban</td>
<td>-11.418</td>
<td>5.185</td>
</tr>
</tbody>
</table>

Overall Model

\[
R^2 = .06 \quad \text{Adjusted } R^2 = .028 \quad F = 1.871 \quad p = .088
\]

Note. Community settings are based on participant self-identification and collapsing the variable inner city and urban into urban and collapsing the variables remote rural and rural into rural. Ratio refers to the school psychologist-to-student ratio for the entire school district or districts the school psychologist serves. Time outside of special education assessment is a percentage.

*p < .05. **p < .001.
Figure 1

Community Setting by Percentage

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Suburan</th>
<th>Rural</th>
<th>Undeterminable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCES Public Schools</td>
<td>9.4</td>
<td>20.5</td>
<td>67.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Participant Recruitment Sample</td>
<td>10</td>
<td>20.8</td>
<td>68.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Participant Respondent Sample</td>
<td>9.5</td>
<td>18.6</td>
<td>71.8</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. Community settings are from the Great Data zip code database.
Figure 2

*Average Percentage of Time Spent in a Role and Function by Community Setting*

*Note.* Community settings are from the *Great Data* zip code database.
Figure 3

*Percentage of Participant Questions Requiring Adjusted or Prorated Scores*

Note. MSQ represents the percentage of participants whose MSQ required a prorated score due to missing ratings for individual questions. Q1 – Q19 are from the RRFS. Q4, Q5, and Q7 were two part questions, malformed answers were combined into one category for this figure. Errors made on Q13 included recording a percentage in the other category that should have been in a listed category or recording percentages that were over or under 100% which required the score to be prorated.
Appendix A

Dear School Psychologist,

As a school psychologist working in a public school district you have been selected randomly from all public schools districts in the United States to participate in this doctoral dissertation research project. I am a doctoral (Psy. D.) candidate at Alfred University in Western, NY, in the Division of Counseling and School Psychology. The doctoral dissertation is one component of the requirements needed for the degree Doctor of Psychology in School Psychology. My study is a national sampling of school psychologists who are practitioners in a school setting. Participating in this study will take approximately 15 minutes of your time and your responses will contribute to progressing best practices in school psychology. By participating in this study you have the opportunity to enter into a raffle to receive one of ten $10 gift cards to Amazon.com to be raffled at the end of the survey collection period.

The purpose of my study is to explore the similarities and differences between school psychologists in diverse regional settings. Specifically, I am exploring school psychologist to student ratios and role and function of school psychologists across the country. Additionally, I am exploring how perceived job satisfaction influences the role and function of school psychologists and the effect this has based on the school psychologists’ regional setting.

I hope that this study will help inform best practices in school psychology; inform practice standards, graduate training programs, and help influence school district policy in favor of school psychologist self-advocacy. With your participation and the participation of other school psychologists the field can progress in new directions professionally and continue to advocate for the services provided by school psychologists.

I appreciate your willingness to participate and assist me in my doctoral dissertation requirements as well as your willingness to continue to professionally participate in an opportunity to better the field and continue to best serve the needs of children, families, and schools. I look forward to reading your feedback!

Sincerely,

Jessica M. Hussar, MA, CAS, NCSP
Doctoral Candidate of School Psychology
Alfred University
Graduate Division of Counseling and School Psychology
Alfred University

Participant Informed Consent Form

Purpose:
The purpose of this study is to examine the roles and functions of school psychologists in differing regional school settings across the country, as well as exploring associated aspects of job satisfaction. This study is part of the requirement for a doctoral dissertation for the degree Doctor of Psychology in School Psychology.

Procedure:
If you agree to be in this study, you will be asked to do the following:

1. Complete a questionnaire (RRFS) in which you will provide demographic information about yourself and the school setting in which you work and about your typical job responsibilities.

2. Complete a questionnaire (MSQ – SF) in which you will rate your perception of your own job satisfaction. The MSQ-SF is Copyright 1977, Vocational Psychology Research, University of Minnesota. Reproduced by permission.

3. The total time required to complete the study is approximately 15 minutes.

4. Complete the raffle form to be entered into a raffle for a $10 gift card to Amazon.com, ten gift cards will be raffled.

5. Please return the completed surveys and raffle form in the prepaid self-addressed envelope.

6. A follow-up survey packet will be mailed to participants after three weeks.

Benefits/Risks to Participant:
Participants will have the opportunity to reflect on their current professional role and function responsibilities, their job satisfaction, and the schools in which they work. Participants will also have the opportunity to shape the field of school psychology and associated standards through their responses. There are no anticipated risks to the participating in this study.

Voluntary Nature of the Study/Confidentiality:
Your participation in this study is entirely voluntary and you may opt to withdraw at any time without penalty. Your name will never be connected to your results or to your responses on the questionnaires; instead, a number will be used for identification purposes. Information that would make it possible to identify you or any other participant will never be included in any sort of report and identifying information will be kept separate from the actual data. If you decide to participate in the raffle, your participant identification number or any other identifying information will be kept separate. Thus, participating in the raffle is confidential and will not be tied back to your survey responses or other identifying information. All results will be based on aggregate data such that no individual person’s or institution’s data can be obtained and used for the purpose of identification. The data will be accessible only to researcher and the researcher’s dissertation committee. All information gathered will be stored in a locked filing cabinet and maintained in accordance with APA research and ethical practice standards.

Thank you for your participation!
Debriefing Statement

Please retain this statement for your records and future reference. The main purpose of this dissertation research is to explore the topic of school psychologists working in differing regional settings and what their role and function is in comparison to other school psychologists nationally. Additionally, job satisfaction of school psychologists in these diverse settings will also be explored and analyzed as they relate to differing regional settings and practices. The researcher hopes to make recommendations to the school psychology community at large about appropriate roles and functions of school psychologists in the field, appropriate school psychologist to student ratios, appropriate placement in terms of number of school psychologists per building, and the implications of a generalist or specialist orientation toward school psychological practice.

To ensure participant anonymity all identifying information will be kept separate from questionnaire responses and the raffle form. Participants will be assigned a participant identification number for data analysis purposes only, this number will never be linked to your identifying information or raffle form information.

The researcher would like to thank all participants in advance for their willingness to be involved in this dissertation research study. The hope is that the results will further the knowledge of the diverse roles and functions of school psychologists in varying regional settings.

Contacts and Questions:
If you have questions about this study you may contact the following individuals:

Researcher/Doctoral Candidate of School Psychology
Jessica M. Hussar, MA, CAS, NCSP
Doctoral Candidate of School Psychology
Division of Counseling and School Psychology
Alfred University

Faculty Dissertation Co-Chairs
Dr. Jana Atlas, Ph.D.
Professor of School Psychology/Director of the Child and Family Services Center
Division of Counseling and School Psychology
Alfred University

Dr. Hannah L. Young, Psy.D.
Licensed Psychologist

Questions or concerns about institutional approval should be directed to:

HSRC Chair
Dr. Danielle D. Gagne, Ph. D.
Chair, Human Subjects Research Committee
Division of Psychology
Alfred University
Alfred University

Thank you for participating in this study and helping with the completion of this doctoral dissertation! Your participation and dedication to the furthering of the field of school psychology is greatly appreciated and a vital part to keeping the field up to date. If you would like to be entered in the raffle for the chance to win one of ten, **$10 gift cards to Amazon.com** please fill out this form and return it with your **completed surveys**. Participating in the raffle is voluntary. **Please note** this form will be kept separate from your surveys. Additionally, **please notice that this raffle form does not** include your participant identification number, which was done to protect your anonymity.

Please provide the following information:

Full Name: __________________________________________________________
Address: __________________________________________________________
Street: ___________________________ City: __________ State: ___________ Zip: ___________
Email (for winning notification purposes only): ____________________________
Appendix B

### Alfred University

#### Regional Role and Function Survey

**Directions:**
Please answer the survey based on the current academic school year and your primary assignment position. Please check the most appropriate response or fill in the blanks where indicated.

1. What is the zip code for your school district? (This information will not be used to identify you or your school district, rather it will be used to create population density categories)

2. In your district you are considered:
   - [ ] Full-Time
   - [ ] Part-Time
   - [ ] Itinerant
   - [ ] Other, Specify: ________________

3. How many separate buildings do you serve? ________________

4. Are you employed by a regional or cooperative education unit (e.g., BOCES, IU, ESD)?
   - [ ] No
   - [ ] Yes, If Yes, how many districts do you serve: ________________

5. Are you a school psychologist who is assigned primarily to work with a special population or group of students (e.g., Psychologist for an Autism Program, Administrator, Behavioral Specialist, Director of Special Education)?
   - [ ] No
   - [ ] Yes, If Yes, specify: ________________

6. Your primary employment setting is: (check one)
   - [ ] Public School
   - [ ] Private School
   - [ ] Public Charter School
   - [ ] Private Charter School
   - [ ] Faith-Based School
   - [ ] Other Please Specify: ________________

7. Please answer the following questions about the number of buildings in the district(s) you serve.
   - Do you serve multiple districts? [ ] Yes [ ] No
   - Do you serve a single district that has one campus with one building housing all grade levels (i.e., K-12 building)? [ ] Yes [ ] No
   - If you serve a single district with multiple campuses or one campus with separate buildings, list the number of buildings for each type of school building listed:
     - Primary/Elementary School: __________
     - Intermediate School: __________
     - Middle School: __________
     - Junior High School: __________
     - Middle School/High School: __________
     - Jr./Sr. High School: __________
     - High School: __________
     - Other/Specify: __________

8. On a whole, your district(s) is/are considered to be in what type of regional area?
   - [ ] Remote Rural
   - [ ] Rural
   - [ ] Suburban
   - [ ] Urban
   - [ ] Inner City

9. How many school psychologists work in your district(s)? (do not include interns and practicum students)

10. Approximately how many students are there in your district(s)? __________

11. Approximately how many students are there in the building(s) you serve? __________

12. Amount of experience you have as a school psychologist (including internship)? _______ year(s) and _______ months
13. Please indicate the approximate percentage of time you spend on each of the following activities during an average month of the school year (*Total percentage should equal 100). Use the rubric below as a guide for filling out the percentage of time matrix.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment Activities Related to Special Education (e.g., cognitive, achievement, FBA/BIP, report writing, special education meetings)</td>
<td>%</td>
<td>Research/Program Evaluation (e.g., carrying out a study, reading research articles to inform practice, reviewing the effectiveness of a program)</td>
<td>%</td>
</tr>
<tr>
<td>Assessment Activities Related to General Education (e.g., universal screening and pre-referral teams related to academic, behavioral, social, emotional concerns)</td>
<td>%</td>
<td>Providing Supervision (e.g., school psychologists, para-professionals, school psychology interns, practicum students)</td>
<td>%</td>
</tr>
<tr>
<td>Systems Consultation (e.g., Rti initiatives, school-wide prevention initiatives, crisis prevention initiatives, PBIS initiatives, overall school system functioning)</td>
<td>%</td>
<td>Participating in Supervision (e.g., group/individual supervision by a licensed/senior psychologist or administrator)</td>
<td>%</td>
</tr>
<tr>
<td>Individual Consultation (e.g., teachers, parent, peer, individual administrator)</td>
<td>%</td>
<td>Administrative Activities (e.g., duties and activities not normally associated with school psychology such as handling discipline referrals or doing staff observations)</td>
<td>%</td>
</tr>
<tr>
<td>Individually Administered Interventions (e.g., behavioral, academic)</td>
<td>%</td>
<td>Continuing Education Activities (e.g., attending conferences, attending in-service training, providing trainings to others)</td>
<td>%</td>
</tr>
<tr>
<td>Individual/Group Counseling (e.g., working with a student(s) using therapeutic techniques)</td>
<td>%</td>
<td>Other (please explain):</td>
<td>%</td>
</tr>
<tr>
<td>Curriculums/Program Development (e.g., developing or exploring new academic, behavioral, or social-emotional curricula or programs for your school to utilize)</td>
<td>%</td>
<td></td>
<td>%</td>
</tr>
</tbody>
</table>

Total %
14. What is your age? ______

15. What is your sex? (check one)  □ Male  □ Female

16. What is your ethnicity? (check all that apply)
   □ American Indian
   □ Alaska Native
   □ Asian
   □ Black
   □ Native Hawaiian
   □ Other Pacific Islander
   □ Hispanic
   □ White
   □ Other, Specify________________________

17. Please indicate the highest degree you hold in school psychology: (check one)
   □ Masters (e.g., MA, MS, M.Ed.)
   □ Specialist (e.g., 60+ graduate credits, CAS, Ed.S.)
   □ Doctorate (e.g., Ph.D., Psy.D., Ed.D.)
   □ Other, Specify________________________

18. Please indicate membership in any of the following: (check all that apply)
   □ State School Psychology Association
   □ State Psychological Association
   □ Regional School Psychology Association
   □ Regional Psychological Association
   □ National Association of School Psychologists (NASP)
   □ American Psychological Association (APA)
   □ Division of School Psychology (16): American Psychological Association (APA)
   □ Other, Specify________________________

19. Please check all Credential(s)/Licensure(s) you have:
   □ Nationally Certified School Psychologist (NCSP)
   □ Certified by State Education Agency as a School Psychologist
   □ Certified by State Education Agency as a Psychometrist, or similar title
   □ Licensed School Psychologist (Doctorate required: State Board of Psychology)
   □ Licensed Psychologist (Doctorate required; State Board of Psychology)
   □ Licensed School Psychologist (non-doctoral; State Board of Psychology)
   □ Licensed Psychological Associate or similar title (non-doctoral; State Board of Psychology)
   □ Other, Specify________________________
November 4, 2014

Dear Jessica Hussar,

We are pleased to grant you permission to use the Minnesota Satisfaction Questionnaire short form on a secure website as you requested for your research. We acknowledge receipt of payment for Royalty fees for 4000 MSQ short form surveys.

Please note that each copy that you make must include the following copyright statement:

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We would appreciate receiving a copy of any publications that result from your use of the MSQ short form. We attempt to maintain an archive and bibliography of research related to Vocational Psychology Research instruments, and we would value your contribution to our collection.

If you have any questions, or if we can be of any additional assistance, please do not hesitate to contact us.

Sincerely,

Vocational Psychology Research
Biographical Sketch

Jessica M. Hussar

EDUCATION

Doctor of Psychology
Alfred University, Alfred, NY
Powell Academic Leadership Fellow
Degree Concentration: School Psychology
Proposal Defended: April 18, 2014
Dissertation Defended: December 4, 2015
Current GPA: 3.97

Certificate of Advanced Study
Alfred University, Alfred, NY
RtI Training Grant Fellow
Degree Concentration: School Psychology
Degree Conferred: May 2011
GPA: 3.94

Master of Arts
Alfred University, Alfred, NY
RtI Training Grant Fellow (August 2008 – June 2011)
Degree Concentration: School Psychology
Degree Conferred: May 2010
GPA: 3.93

Bachelor of Arts
University at Albany, Albany, NY
Major: Psychology
Minor: Education
Summa Cum Laude
Degree Conferred: December 2007
GPA: 3.80

Credentials
Permanent Certification
New York State Education Department
Area: School Psychologist
Issued: November 2015

PROFESSIONAL EXPERIENCE

School Psychology
Binghamton City School District, Binghamton, NY (November 2015 – present)
Bainbridge-Guilford Central School District, Bainbridge, NY (June 2015 – November 2015)
Family Enrichment Network, Johnson City, NY (August 2014 – May 2015)

Educational Consultation
Johnson City Central School District, Johnson City, NY (May 2012 – July 2012)

Teaching
Alfred University, Alfred, NY

Undergraduate: PSYC 210 Communication Counseling Skills (2 Sections, Spring 2012 & Spring 2013)
Graduate: PSYC 603 Foundations of School Psychology (1 Section, Fall 2012)

Internships
Windsor Central School District, Windsor, NY (September 2013 – June 2014)
Noyes Mental Health Services, Dansville, NY (September 2012 – December 2012)
Allegany – Limestone Central School District, Allegany, NY (September 2010 – June 2011)

Practicums
Alfred University Child & Family Services Center, Alfred, NY (August 2009 – May 2010)
Hornell City School District, Hornell, NY (September 2008 – May 2010)
Leadership
Alfred University Division of Counseling and School Psychology, Alfred, NY (August 2011 – May 2012)

- Position: Assessment Coordinator

Assistantships
Alfred University Lea R. Powell Institute, Alfred, NY (August 2008 – May 2010)

- Position: Graduate Researcher

SCHOLARSHIP

Honors, Awards, and Scholarships

Graduate
- Powell Academic Leadership Fellow, Alfred University, NY, 2011
- Personnel Preparation Grant; Training School Psychologists to Implement Response to Intervention in the Schools, Alfred University, NY, 2008

Undergraduate
- Summa Cum Laude Graduate, University at Albany, NY, 2007
- PSI CHI, Outstanding Member Award, University at Albany, NY, 2007 (Spring and Fall)
- Dean’s List, University at Albany, NY, Fall 2004 – Fall 2007
- National Dean’s List, University at Albany, NY, 2004 – 2007

Grants Awarded

- Bernstein Travel Award, Alfred University, Alfred, NY $600 (2012, August). Funded expenses to present a poster at the 120th Annual Conference of the American Psychology Association, Orlando, FL.

- Bernstein Travel Award, Alfred University, Alfred, NY $600 (2011, February). Funded expenses to present a poster at the 43rd Annual Conference of the National Association of School Psychologists, San Francisco, CA.

Poster Presentations


