
Center on Personnel Studies in Special Education

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COPSSE research is focused on the preparation of special education professionals and its impact on beginning teacher quality and student outcomes. Our research is intended to inform scholars and policymakers about advantages and disadvantages of preparation alternatives and the effective use of public funds in addressing personnel shortages.

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CONTENTS

Introduction.....	4
Personnel Dilemmas in Historical Perspective.....	7
Key Dilemmas Facing School Psychology.....	12
Professional Training of School Psychologists.....	14
Certification and Licensure Issues.....	21
Supply and Demand.....	24
Conclusions: Personnel Concerns and Key Issues in School Psychology.....	24
REFERENCES.....	28

INTRODUCTION

This paper provides an historical and empirical context from which to consider personnel challenges facing the profession of school psychology:

- balancing professional roles as gatekeepers versus comprehensive service providers in order to integrate services that address both mental health and academic concerns effectively
- serving a diverse student population with a relatively homogeneous work force
- serving a broader segment of the school community with a current and predicted shortage of qualified personnel.

After the dilemmas of professional training, credentialing, and supply and demand are discussed, recommendations are offered for reaching the goal—to ensure the ongoing availability of highly qualified professionals to address the needs of children and schools in the 21st century.

As the need to provide instructional, behavioral, and mental health support to struggling students grows, school psychology is looking to the future and seeking strategies that will allow the profession to address student needs effectively and efficiently, while ensuring the longevity of a highly qualified workforce. The personnel and training dilemmas facing school psychology at the beginning of the 21st century are similar to those faced by special education and public education in general. Despite an ever-increasing demand for services, we are challenged by a number of factors outside the control of the profession:

- diminishing fiscal investments in both the education of America’s children and the professional preparation of educators
- an insufficient number of individuals entering the profession
- “graying” of the workforce reflected in increasing numbers of retirements
- a tarnished image of public education in general that discourages recruitment
- competing career choices not available to previous generations.

PERSONNEL DILEMMAS IN HISTORICAL PERSPECTIVE

Early History

In its infancy, school psychology was deeply rooted in the child study clinics of such pioneers as Arnold Gesell, and early school psychologists were clearly diagnosticians who “studied” attributes of children to predict their school success and need for remedial or specialized instruction. School psychology was initially practiced in large urban and suburban areas, at first in centralized diagnostic clinics (as in a hospital or community clinic today) and later on a highly itinerant basis as school psychologists were hired to visit schools periodically to assess referred children. Even prior to special education regulations, students referred to school psychologists generally were either failing academically or exhibited severe emotional disturbance, and school psychologists determined which students needed special placement or treatment (Fagan & Wise, 2000).

Evolving Roles

Although their tools evolved, school psychologists’ primary functions remained essentially unchanged and unchallenged for decades. This medical model of diagnosis and classification—as “sorters and repairers” (Fagan, 2002)—was well entrenched when federal special education regulations were first adopted in the mid-1970s. The new mandates further institutionalized the test-and-place model as the profession rapidly grew to the point that nearly every school district employed at least one school psychologist. Although key researchers had already refuted the popular concept of aptitude by treatment interactions (matching treatment to individual attributes), this philosophy nevertheless served as the foundation for early special education practice, and thus for the practice of school psychology, at a critical point in the profession’s development (Gresham, 2002; Reschly & Ysseldyke, 2002).

A pair of landmark conferences over 20 years ago—at Spring Hill in Minnesota in 1980 (Ysseldyke & Weinberg, 1981) and Olympia in Wisconsin in 1981 (Brown, Cardon, Coulter, & Meyers, 1982)—which are often cited as the organized start of a slow revolution in school psychology, included the first large-scale discussions of role expansion beyond diagnostic assessment (Reschly & Ysseldyke, 2002). At that time, school psychologists were still in relatively short supply. Attention was newly focused on strategies of behavioral psychology and ecologically oriented indirect services directed at modifying the instructional environment as a means to impact outcomes for all students efficiently. Consultation to address individual academic and behavioral difficulties, as well as group and systems intervention (e.g., at the school or district level), were promoted as ways to expand roles and to help prevent more serious student difficulties.

Although many school psychologists felt limited by their roles as special education gatekeepers and desired opportunities to impact student performance more effectively, relatively few individuals and school districts initiated recommended paradigm shifts (Goldwasser, Meyers, Christenson, & Graden, 1983; Smith, 1984). School budget woes in the early to mid-1980s further delayed implementation of broad roles. Overall ratios of students to school psychologists steadily improved (Fagan, 2002). Referral to special education also increased rapidly (Ysseldyke & Marston, 1999).

Role expansion, where it occurred, had an interesting result—the more services school psychologists provided, the more services were requested. The profession continued to grow. For many, the ratio of students to staff improved. With better ratios, many school psychologists began to carve out more time for expanded service delivery; more school psychologists included consultation, counseling, staff training, and group interventions in their repertoire of professional services (e.g., Canter, 1991; Franklin & Duley, 2002). Often, however, these services were additions to the traditional diagnostic role—the role most often funded by special education dollars and justified by special education mandates.

Slow Change

The first *School Psychology: A Blueprint for Training and Practice* (Ysseldyke, Weinberg, & Reynolds, 1984), going beyond the recommendations of Olympia and Spring Hill, called for a re-conceptualization of “best practice” where the system and individual students were the target clients for school psychology. As in many other professions, however, the training of school psychologists lagged well behind the new standards. The majority of school psychologists continued to spend much of their time engaged in eligibility assessments and related special education activities (e.g., Reschly, Genshaft, & Binder, 1987; Reschly & Wilson, 1995). In a few settings (e.g., Heartland Area Education Agency in Iowa; Minneapolis Public Schools), new technologies (e.g., curriculum-based measurement [CBM] and problem-solving models) did create opportunities for school psychologists to serve as interventionists rather than special education gatekeepers (Deno, 1985; Ysseldyke & Marston, 1999). However, these models were few and far between; and innovators often faced significant institutional and political barriers (Marston, Canter, Lau, & Muyskens, 2002).

At the end of the 1980s, another breakthrough in the development of the profession was the introduction of the first national credential for school psychologists—the National School Psychology Certification system affiliated with the National Association of School Psychologists [NASP]. The Nationally Certified School Psychologist credential [NCSP] solidified several trends in the profession: broad recognition of the specialist level of training; uniform training standards incorporating the principles of the *Blueprint*; and a commitment to ongoing professional development, a necessary condition for new approaches to become common practice. Following introduction of the NCSP credential in 1989 (Batsche & Curtis, 2003), states began adopting its standards; as of this writing, more than half the states (26) include the NCSP as a criterion for state certification or licensure.

Paradigm Shift: New Tools, New Standards, New Dilemmas

Several shifts in research and practice came together toward the end of the 20th century, creating both conceptual and technical opportunities for significant change in school psychology practice. The growing call for accountability in education led to increased support for evidence-based practice (e.g., Kratochwill & Shernoff, 2003) and a focus on outcomes. At the same time, new technologies that allowed for more precise and frequent measurement of student skills and behavior were developed and validated. These included curriculum-based assessment [CBA] (Howell & Nolet, 1999), curriculum-based measurement [CBM] (Shinn, 1989), functional behavior assessment [FBA] (Gresham & Noell, 1999), and response to intervention [RTI] (Gresham, 2002). These new technologies, integrated in the context of collaborative team decision-making, form the foundation for Problem-Solving Models of service delivery, which emphasize early identification and support of at-risk students within general education prior to

consideration of special education needs. For school psychologists, this model has promoted broader roles in consultation and intervention design (e.g., Marston et al., 2002).

When the *Blueprint* was revised (Ysseldyke, Dawson, Lehr, Reschly, & Reynolds, 1997), there was a substantial body of research supporting ecological approaches over medical models, problem-solving strategies over refer-test-place paradigms, and curriculum-based assessment strategies over traditional norm-referenced approaches. Research also questioned the efficacy of the current model of special education—the system that was responsible for the rapid growth of school psychology (Reschly & Ysseldyke, 2002). New standards for training (e.g., NASP, 2000c) reflected the domains and philosophy of *Blueprint II*. These domains of training and practice include:

- data-based decision making and accountability
- interpersonal communication, collaboration, and consultation
- effective instruction and development of cognitive-academic skills
- socialization and development of life competencies
- student diversity in development and learning
- school structure, organization, and climate
- prevention, wellness promotion, and crisis intervention
- home-school-community collaboration
- research and program evaluation
- legal, ethical practice, and professional development.

With the initial wave of school psychologists hired in the mid- to late 1970s about to retire, projected shortages of personnel (including shortages of trainers and training programs), economic downturns, calls for educational reform, and largely political initiatives to hold schools accountable spurred school psychology leaders to call for wide-scale change to address the needs of an increasingly diverse and at-risk student population (e.g., Reschly & Ysseldyke, 2002). Revamping models of service delivery one psychologist or even one district at a time was clearly as inadequate as trying to solve individual student problems one at a time. At the end of the 20th century as at the beginning, school psychologists devoted most of their time to “sorting and repairing” individual students. However, many school psychologists now had the training to engage in very different roles.

Further endorsement of fundamental reform in school psychology is evident from the proceedings of the 2002 Conference on the Future of School Psychology (Sheridan & D’Amato, 2004), held two decades after Spring Hill, nearly two decades after the first *Blueprint*. A highly diverse gathering of practitioners, trainers, researchers, and association leaders, at the Futures Conference quickly reached consensus in calling for change across the domains of school psychology practice and service delivery (Harrison et al., 2004). Overall, the proposed changes reflected the need to address the learning of all students by promoting evidence-based instructional strategies and to identify student needs and measure progress using ecological and functional procedures. The necessary outcomes for children, families, and schools identified by conference participants included:

- improved academic competencies and school success for all children
- more effective education and instruction for all learners
- improved social-emotional functioning for all children
- improved parenting skills and enhanced family-school partnerships to support students

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- integrated school and community services to promote health and mental health for children and families.

Challenges to Role Change

To fulfill the agenda established at the 2002 Conference on the Future of School Psychology, school psychologists will have to adopt new and/or expanded roles. The focus necessarily will move beyond the emphasis on individual diagnosis and treatment and more substantially to prevention, early intervention, instructional design, mental health services, and family support. Regardless of how school psychologists conduct assessments, diagnosis of disability can no longer be their primary objective in a system that seeks to impact student outcomes more globally. At the same time, how school psychologists approach assessment may determine what other roles they fill.

There are many challenges to role change in our profession, both internal and systemic:

- Generally school psychology practice remains mired in the medical model, the search for pathology. Growing bodies of research on the physiological and neurological bases of learning and behavior tend to reinforce the stronghold of this model for school psychology practice (Rosenfield, 2000). Change in how the profession conceptualizes its mission, not simply a change in activities, is needed (Sheridan & Gutkin, 2000).
- Many veteran (and even new) school psychologists truly prefer traditional roles—one-to-one work with children is typically rewarding as results are tangible and often gratifying. Diagnostic work is interesting and intellectually challenging (Fagan, 2002; Fagan & Wise, 2000).
- Changes in regulations are often regarded as threats to current roles rather than opportunities to forge new ones. Many school psychologists fear that a shift away from the traditional diagnostic role will lead to unemployment (e.g., Fagan & Wise, 2000).
- A move away from traditional psychometric activities may increase confusion among practitioners and stakeholders regarding what roles are now appropriate and feasible (Fagan, 2002; Ysseldyke et al., 1997).
- For many, new roles will require training to ensure a sufficient knowledge and skill base to implement reforms. There is evidence of a disconnect between the needs of today's schools and the curriculum of school psychology training programs (Braden, DiMarino-Linnen, & Good, 2001). Yet there are fewer trainers and dwindling funds to support new or revamped training programs and ongoing professional development.
- Personnel shortages threaten to offset improved student-to-psychologist ratios. Even where districts can supplement special education dollars to facilitate role expansion, will there be enough school psychologists to fill these positions?
- Expectations are difficult to modify. What we have done for years is what others expect and value. Efforts to change roles can upset the cultural equilibrium of the school as traditional roles are threatened.
- The impact of shifting roles has not been thoroughly evaluated; and administrators, teachers, and school psychologists themselves are often skeptical that "new" will be "better."
- Regulations historically have discouraged role change. Innovations viewed as "noncompliance" can have negative financial as well as political repercussions. Administrators and policymakers often rigidly interpret laws and regulations and assume that new approaches are not permitted by law or funding sources (Prasse & Schrag, 1999). The fact that most school psychologist positions are funded under special education regulations

often serves to limit and justify roles. Meanwhile, gatekeeping activities tend to perpetuate the perception that school psychologists fill reactive rather than proactive roles.

- New roles are difficult to implement while old roles are maintained. Critical elements of system reform must be in place to assure continuity of supports to students and job protections for professionals, whether change takes place at micro or macro levels (Knoff, 2002; Reschly & Ysseldyke, 2002).

School psychologists, who are most likely to have the training and mindset to engage in new roles, are least likely to be in positions to direct a paradigm shift at the local level due to limited opportunities to serve in administrative positions. These barriers notwithstanding, many trainers, practitioners, and professional leaders are optimistic that school psychology is heading in a proactive direction: “Our faith is based on a conviction that the delivery system and role changes are in the best interests of children, youth, and families....Paradigm shift means making differences in, rather than predictions about, students’ lives” (Reschly & Ysseldyke, 2002, p. 16).

This paper now turns to the issues critical to the recruitment, training, and credentialing of school psychologists and to the profession’s ability to address changing roles to meet the diverse needs of students and schools.

KEY DILEMMAS FACING SCHOOL PSYCHOLOGY

Concerns addressed by participants at the 2002 Conference on the Future of School Psychology (Harrison et al., 2004) can be summarized broadly as three critical dilemmas:

1. Shifting professional roles from gatekeeper to comprehensive service provider in order to integrate services that address both mental health and academic concerns effectively in the context of public policy emphasizing accountability (e.g., IDEA, No Child Left Behind) and research emphasizing empirically based practice (Kratochwill & Shernoff, 2003; National Reading Panel, 2000; U.S. Public Health Service, 2000)
2. Serving a diverse student population with a relatively homogeneous work force
3. Serving a broader segment of the school community with a dwindling work force.

The status of the profession in light of each dilemma and the position of the National Association of School Psychologists [NASP]¹ is presented in the following sections.

From Gatekeeper to Comprehensive Service Provider

The school psychology literature is replete with studies and rhetoric regarding the limitations of practice resulting from adherence to a medical model reinforced by special education mandates (e.g., Reschly & Ysseldyke, 2002; Sheridan & Gutkin, 2000; Tilly, 2002). Demographic and functional analyses of professional activities have repeatedly reflected the ongoing challenge of (if not resistance to) role expansion (Curtis, Grier, & Hunley, 2004; Reschly & Wilson, 1995). Although Curtis et al. (2004) reported that initial special education evaluations and re-evaluations declined significantly between 1989-1990 and 1999-2000, they also found that the time school psychologists invested in special education activities jumped dramatically.

Yet there is also ample evidence that under more comprehensive service delivery models both students and school psychologists thrive (Canter, 1991; Franklin & Duley, 2002). There is a considerable consensus—from formal positions of the National Association of School Psychologists [NASP] (2004b) to the recommendations of the Futures Conference (Harrison et al., 2004)—that school psychologists must provide a broader array of services to a broader student population in order to have the necessary impact on student achievement and adjustment. While recent changes in special education mandates (e.g., IDEA, 2004) may ease some of their gatekeeping responsibilities, it is essential that school psychologists incorporate alternative roles into their everyday lives and thus reduce the need for some traditional activities that have driven the profession for the last century. Too many needs of children and schools have been neglected while school psychologists have been certifying disabilities and providing prevention and early intervention support for those same disabilities.

¹ This paper was prepared with the funding support of the National Association of School Psychologists in the author's capacity as consultant. This paper does not reflect an official position of any organization or association; however, it does draw significantly upon existing positions and standards of the National Association of School Psychologists [NASP].

School-based mental health services. Historically school psychologists have not readily identified themselves as mental health providers (Nastasi, 2000). However, researchers concerned with reducing barriers to learning have called on school psychologists to play key roles in establishing school-based mental health services as a crucial means of improving achievement and life outcomes (Adelman & Taylor, 1998). Again, calls to address student mental health concerns through prevention, early intervention, and tertiary treatment were among the strongest recommendations from the Futures Conference (Harrison et al., 2004) as well as from the Surgeon General's Commission on Child Mental Health (U.S. Public Health Service, 2000) and the report of the President's New Freedom Commission on Mental Health (2003). An added impetus to enhance school-based mental health services is the increasing demand for crisis prevention, intervention, and postvention services. While high profile incidents (e.g., Columbine and Red Lake shootings) as well as more global crises (e.g., 9/11) have facilitated the development of school crisis teams and national initiatives, such as the National Emergency Assistance Team (Poland & Gorin, 2002). Schools and communities are more aware of the need to address bullying, gang activities, and social isolation that can threaten school safety (e.g., Brock, Lazarus, & Jimerson, 2002).

The hardest sell may be among school psychologists themselves, who note lack of training, lack of time, and narrow role definitions as barriers to identification as mental health providers. Some shift is evident as more and more school psychologists participate in school-based mental health projects and grant-writing (e.g., Nastasi, Pluymert, Varjas, & Moore, 2002; Nastasi, Varjas, Bernstein, & Pluymert, 1998). National Association of School Psychologists [NASP] has initiated efforts to promote pre-service and in-service training to assure competency in delivering mental health services (e.g., NASP, 2000c, 2003a); but a broader effort is clearly needed. School psychologists by definition must be perceived—and perceive themselves—as school-based mental health practitioners as much as instructional consultants.

Improving instruction. Similarly, in assuming roles as instructional consultants, there has been some discomfort and resistance among many school psychologists who feel limited in their training in curriculum and teaching methods. While we readily conduct assessments of students with significant academic problems and even offer general suggestions for remediation and special placement, we have been reluctant to apply our backgrounds in child development, learning, and research design to common instructional problems. One new impetus for taking on this role is the growing emphasis on scientific, evidence-based instructional practices, reflected most clearly in the provisions of No Child Left Behind, (U.S. Department of Education, 2001) in the latest IDEA reauthorization of 2004, (U.S. Department of Education, Office of Special Education and Rehabilitative Services, 2004) and in the work of the American Psychological Association [APA], National Association of School Psychologists [NASP], and other groups on evidence-based interventions (e.g., Kratochwill & Shernoff, 2003).

Yet leaders of the profession have been urging school psychologists to use their expertise to influence instructional decisions for years (e.g., Graden, Zins, & Curtis, 1988; Rosenfield, 1987). Key recommendations from the Futures Conference concern consultation and intervention to improve learning and instruction (Harrison et al., 2004). *Blueprint II* (Ysseldyke et al., 1997) and the latest National Association of School Psychologists [NASP] training standards (2000c) place considerable emphasis on the use of data-based decision making to support assessment and consultation regarding student learning problems. In particular, professional leaders and researchers have called for implementation of problem-solving models and specifically Response To Intervention [RTI] methodologies (Gresham, 2002; LD Roundtable, 2002; NASP, 2003d). Such approaches emphasize identifying specific skill deficits early, designing instructional

strategies to address those difficulties, and frequently monitoring student performance to ensure progress. These approaches focus resources on prevention and early intervention in order to reduce referral for special education and improve student outcomes. School psychologists have expertise in measurement, learning, cognition, and evaluation of research findings. They are in ideal positions to translate research on instruction to effective, empirically based classroom practices. Indeed, school psychologists have assumed leadership roles in districts where problem-solving models have been implemented—Heartland Area Education Agency in Iowa (Ikeda, Tilly, Stumme, Volmer, & Allison, 1996; Tilly, 2002); Minneapolis Public Schools (Marston et al., 2002; Marston, Muyskens, Lau, & Canter, 2003); Milwaukee Public Schools (Haubner, Staum, & Potter, 2002); and others.

Positive behavior support. Encouraging school psychologists to engage in activities that foster improved academic outcomes, researchers and professional leaders have promoted Positive Behavior Support [PBS] (U.S. Department of Education, 2000). PBS is an empirically validated, functionally based approach used to replace challenging classroom behaviors with prosocial skills, thus decreasing the need for more intrusive or aversive interventions (e.g., punishment or suspension). PBS involves data-based decision making using functional behavioral assessment and ongoing monitoring of the outcomes of intervention (e.g., Sugai & Horner, 2002). Mandated by the 1997 Amendments to IDEA and more loosely “encouraged” in the 2004 reauthorization, many school psychologists assumed leadership roles in helping schools develop PBS systems. Where effectively implemented, PBS provided a natural link between behavior and achievement and helped practitioners focus on prevention and early intervention.

Integrating instructional and mental health supports. Barriers to learning for many children today include factors tied to both academic functioning and mental health status (e.g., Adelman & Taylor, 1998). Leading researchers as well as participants in the 2002 Conference on the Future of School Psychology have called for collaboration across the systems that directly impact children—schools and community agencies—a direct link between academic and mental health supports, between prevention and intervention (Harrison et al., 2004; Power, 2000). “School psychologists are uniquely qualified to understand educational implications of mental health and to facilitate the integration of public education and public health” (Nastasi, 2003, p. 51). Further, some researchers and practitioners have called for school psychology to consider a public health model as a means of conceptualizing integrated service delivery based on empirically validated practices and school-community collaboration (Strein, Hoagwood, & Cohn, 2003). Mental health and academic performance are clearly intertwined, and school psychologists must be prepared to address and integrate both areas in their daily practice.

Diversity

The U.S. population is becoming increasingly diverse in terms of culture and native language, and the students in our public schools reflect this diversity. Yet our profession’s demographics do not come close to matching the students and families we serve. About 93% of practicing school psychologists are identified as Caucasian, reflecting only a slight change over the past 20 years (Curtis, Grier, et al., 2004). National Association of School Psychologists [NASP] and APA have undertaken a variety of initiatives to address minority recruitment (e.g., APA, 1993; NASP, 2003b); but the short-term outlook indicates that the demographics of the profession will not change dramatically. It is therefore more critical than ever that training and professional development emphasize culturally competent practices. Projects such as NASP’s training video CD-ROM, Portraits of the Children: Culturally Competent Assessment (NASP, 2003c); new website (<http://www.nasponline.org/culturalcompetence/index.html>); Directory of Bilingual

School Psychologists (NASP, 1998); and Minority Recruitment Task Force (NASP, 2005); and APA's Healthy Schools Project for Lesbian and Gay Students (APA, n.d.) need to be expanded and extended to address our increasingly diverse clientele.

Personnel Shortages

One impetus for the 2002 Conference on the Future of School Psychology was the growing body of data indicating that a serious shortage of personnel would soon impact the delivery of services in public schools (Curtis, Hunley, Walker, & Baker, 1999; Fagan & Wise, 2000; Miller & Palomares, 2000; Thomas, 1999a). Curtis et al. (1999) projected that about 40% of the school psychology work force at that time would likely retire by 2010, and about two thirds by 2020.

Anecdotal evidence gives more immediacy to these concerns. In Chicago at the end of the 2002-2003 school year, 29% of school psychologists were eligible to retire. In Anchorage, Alaska, there were 10 unfilled positions (impacting 25 schools); and the district paid other practitioners to work 6 days per week. In Minneapolis Public Schools, 5 of 43 full-time positions were unfilled; and the workload was added to the duties of the existing staff (Charvat & Feinberg, 2003).

Unless the profession can effectively address the problem of doing more with less—serving a broader student population with a dwindling work force—there will be few resources to address issues such as student mental health and learning! This will require a multi-faceted approach: recruiting and retaining professionals as well as identifying different approaches to service delivery that increase both effectiveness and efficiency. As noted by the 2002 Conference on the Future of School Psychology, we must reconsider the traditional models that emphasize individual student services and shift some emphasis to more indirect strategies that address systemic issues, thus having greater impact despite a potentially smaller work force (Harrison et al., 2004).

The next section considers how three personnel factors—training, credentialing, and supply-demand—interact with the critical issues facing the profession.

PROFESSIONAL TRAINING OF SCHOOL PSYCHOLOGISTS

A significant challenge to addressing critical issues in service delivery is the preparation of a highly qualified work force. Individuals entering school psychology training today face a wider range of training needs and higher standards for their preparation. At the same time, they may find fewer programs and fewer trainers available. Two concepts are key to discussions of professional training:

1. *Accreditation* and *program approval* refer to the systematic review of a university's school psychology training program relative to the criteria adopted by a professional body such as the National Association of School Psychologists [NASP], through its affiliations with the National Council for Accreditation of Teacher Education [NCATE] and APA. Accreditation issues are addressed in the following discussion of training of school psychologists.
2. *Credentialing* refers to the state or national process of evaluating the training of an individual school psychologist relative to the training and practice standards of that state or national board and the granting of a certificate or license to practice. Credentialing issues will be discussed in the next section of this paper.

Scope of Training

Today school psychologists need a greater array of skills than did their predecessors of the 1970s and 1980s. School psychologists for the foreseeable future must have substantial expertise in:

- understanding special education laws and regulations
- eligibility determination
- translating research to practice in the areas of instruction, particularly early literacy, reading, study skills, and meta-cognition
- positive behavior supports
- mental health (prevention and intervention)
- crisis management
- school organization
- collaborative consultation and program evaluation
- service delivery in a manner that is culturally sensitive and supportive of a vast diversity of learners and their families
- working with a wide range of disabilities, particularly attention disorders and executive skills as well as conditions that may have been regarded as “low incidence” to past generations of practitioners (e.g., autism spectrum disorders, traumatic brain injuries, Tourette syndrome, and other neuro-behavioral disorders that are increasing in prevalence and/or identification).

The document *School Psychology: A Blueprint for Training and Practice* has served as a road map for training standards since its first publication (Ysseldyke et al., 1984). The first revision (Ysseldyke et al., 1997), and the current work on a second revision (Pfohl, 2005) reflect the evolution of skills needed by today's school psychologists.

Availability of Training and Trainers

A survey completed in 1997 found 218 institutions of higher education were offering some type of school psychology program (Thomas, 1998). Given that some institutions offer multiple degree programs (i.e., specialist and doctoral), the survey reported a total of 294 programs across the country; and this number had not changed significantly in the past decade (Charvat & Feinberg, 2003). Estimates of the number of school psychology graduates across all levels of training have typically ranged from 1,750 to 1,950 per year, with little change in completion rates over the past 15 years (Curtis, 2002; Reschly & Wilson, 1995; Thomas, 1998). As one analysis of school psychology graduate education concluded, there is “relative stability in the number and kinds of institutions offering programs, program levels, student enrollment, and numbers and levels of graduates” (Reschly & Wilson, 1995, p. 82). However, new training standards have likely encouraged additional positions that may create new openings (Little & Akin-Little, 2004).

One factor of particular concern regarding future personnel availability is the apparent increase in unfilled faculty positions among school psychology training programs. A survey conducted by Tingstrom (2000) found 54 school psychology faculty positions open in 53 institutions of higher learning in the fall of 1999. Projections were 164 job openings in academia between the 2000-2001 and 2002-2003 academic years (Miller & Masten, 2000). In developing projections of retirements from the field, Curtis, Hunley et al. (2004) predicted that university faculty would retire at a markedly higher rate than practitioners, 29.4% versus 12.3%, respectively, by 2005. With no data suggesting that the total number of training programs has declined despite unfilled faculty positions, it seems likely that existing programs are providing training with a higher ratio of faculty to students, which has implications for the quality of professional preparation (Charvat & Feinberg, 2003). Further, as the faculty shortage appears particularly dire in relation to the number of applicants to graduate programs (Curtis, 2002), the future work force may depend more on successful recruitment of trainers than trainees.

Entry-Level Training

A long-standing professional debate in school psychology relates to degree requirements for entry-level practice. The two professional organizations that represent school psychology have distinct positions on this issue. APA (1987) maintains that doctoral-level preparation is required for independent practice as a “professional psychologist,” which includes school psychology. On the other hand, the National Association of School Psychologists [NASP] (2000c) maintains that the entry level for professional practice as a school psychologist is the completion of a specialist-level graduate degree (60+ semester hours). While professional debates ebb and flow about the issue, review of existing training programs, degrees obtained by practitioners in the field, and state requirements for school-based practice all indicate the predominance of specialist-level training. Nearly all institutions of higher education providing school psychology programs offer specialist-level programs (Reschly & Wilson, 1995).

While the majority of programs prepare school psychologists at the specialist level, they frequently do not confer a specialist degree. Instead, 56% of institutions (Thomas, 1998) confer a master’s degree and a certificate of advanced study or a certificate of completion to indicate the completion of another year beyond the traditional master’s degree. Indeed, in a recent national survey, 87% of respondents indicated currently holding preparation at the specialist level or

higher (Curtis, Grier et al., 2004), while it is estimated that approximately 30% of practicing school psychologists hold a doctoral degree (Curtis, Grier, Abshier, Sutton, & Hunley, 2002).

The shift of school psychology from a master's- to specialist-level profession over the past 30 years is in part attributed to the adoption of higher standards for both credentialing and training by the National Association of School Psychologists [NASP], beginning in the 1970s. The establishment of the national Nationally Certified School Psychologist [NCSP] credential in 1989 as well as rigorous training standards are further guarantees that future school psychologists will hold at least the specialist credential or its equivalent.

As school positions go unfilled and third-party billing reduces incentives and positions for psychologists in other settings, professional associations have considered the concept of *respecialization*—the training of individuals who already hold degrees or credentials in closely related fields (e.g., child clinical psychology). Whether and how these individuals could gain sufficient training to meet professional standards for school psychology practice is a new challenge for both training programs and credentialing bodies.

National Standards

National standards for the preparation of school psychologists have been established by National Association of School Psychologists [NASP], a constituent member of the National Council for the Accreditation of Teacher Education [NCATE]. All school psychology training programs are eligible for NASP approval regardless of their location in accredited or non-accredited NCATE institutions of higher education. NASP's *Standards for Training and Field Placement Programs in School Psychology* (2000c) specify requirements for specialist-level and doctoral-level training, with preparation including a minimum of 60 graduate (semester) hours of designated course work, a practicum, and a full-year internship, all reflecting the 10 practice domains of *Blueprint II* (Ysseldyke et al., 1997). APA (1981) also accredits school psychology doctoral programs as an area of specialty preparation within professional psychology.

Since formal National Association of School Psychologists [NASP] approval of programs through National Council for the Accreditation of Teacher Education [NCATE] began in 1988, the number of approved programs at the specialist and doctoral levels has increased steadily. In 2004, 62% of specialist programs and 68% of doctoral programs had attained conditional or full approval through NASP (2004c). Additionally, it is estimated that 75% of school psychology doctoral programs are accredited by the APA. In 2004, 56 programs held APA accreditation (APA Office of Program Consultation and Accreditation, personal communication, August 26, 2004).

Although the number of school psychology training programs has remained stable over the past 15 or more years, it is expected that the number of school psychology programs attaining national approval/accreditation will continue to increase in the coming years. APA and/or National Association of School Psychologists [NASP] program approval as well as national or regional accreditation have become critical tools for recruitment of the most qualified students to school psychology graduate programs, as well as a necessary prerequisite to program approval by many state education agencies. Due to the National Council for the Accreditation of Teacher Education [NCATE] state partnership agreements, at least half of the states now require that professional education programs achieve national approval or accreditation or demonstrate that they are able to meet national standards for training in their designated discipline as part of the

process of state approval (Prus & Curtis, 1996; NCATE, 2005). Some states require graduation from an approved program as one criterion for a practice credential. There has also been a significant increase in the number of programs applying to the NASP Program Approval Board as a result of NCATE state partnership agreements (NASP, 2004c).

Training Diverse Professionals

An additional issue of importance affecting school psychology preparation is the underrepresentation in the profession of ethnic minorities, who make up only 7% of the work force (Curtis, Grier et al., 2004). Training programs, as well as APA, National Association of School Psychologists [NASP], and state school psychology associations, are focusing efforts and resources on strategies to recruit ethnic and linguistic minorities into school psychology training programs. With survey data indicating growth in the percentage of school psychology students from ethnic minority groups from about 11% in the late 1980s (McMaster, Reschly, & Peters, 1989) to about 17% a decade later (Thomas, 1998), there is some indication that recruitment efforts are having an impact; although the gap between practitioners and clients continues to be significant. Further, despite the increase in the diversity of graduate students, there has been little change in the demographics of practitioners. More systematic attention to both recruitment and retention in the field is needed if the profession is to make progress and become a better reflection of the face of the public schools today.

Aside from increasing the diversity of those entering school psychology training, pre-service training and professional development opportunities give more attention to topics that will better prepare all future and current school psychologists to address the needs of diverse student populations. Training standards today give greater emphasis to course work and field experiences that address sensitivity to and knowledge of the history, customs, and unique attributes of diverse cultural and linguistic groups that impact learning, behavior, and adjustment. More training programs offer courses in culturally competent assessment and multicultural counseling. Some programs offer specialization in bilingual school psychology practice. National and state conferences for practicing school psychologists offer an increasing array of sessions addressing diversity topics. Training in diversity will continue to be a significant challenge to training programs and local, state and national organizations, because the diversity of the student population appears to be increasing at a much faster rate than the diversity of the profession.

Training Issues for the Future

Discussions of the future of school psychology preparation must address the scope of program content and broader professional roles (particularly regarding instruction and mental health); the continuing prevalence of specialist-level training; the stability of the number of institutions and graduate programs engaged in training; the lack of diversity among individuals seeking and completing training; and the apparently insufficient number of graduates entering the work force. Given this context, the profession must focus its training efforts to do the following:

- reconceptualize the curriculum of school psychology training to better reflect the demands and needs of today's schools and students by "decreasing emphasis on assessment and increasing emphasis on advocacy, preventative measures, and the mental health needs of all students" (Braden et al., 2001, p. 216)

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- increase the number of school psychology graduate programs that meet national standards for training, based on National Association of School Psychologists [NASP] program approval and APA accreditation
 - increase accessibility to valid alternative training options (e.g., distance learning graduate programs) in several special areas of specific personnel shortages (e.g., rural areas, states with few or no traditional graduate training programs, historically black colleges and universities).
 - identify successful strategies to recruit school psychologists to serve as trainers in graduate institutions, such as mentoring-modeling teaching and research activities (Little & Akin-Little, 2004)
 - develop alternatives to traditional faculty appointments, including adjunct arrangements with experienced practitioners and recruitment of experienced practitioners as full-time clinical faculty regardless of publication history
 - continue to implement the most recent revisions of national training standards (NASP, 2000c) that emphasize competency-based practice and development of performance-based program assessment and accountability systems
 - identify successful strategies to increase the number of individuals seeking training as school psychologists, including identifying alternatives to traditional models of training that may limit the potential pool of practitioners. Such alternatives may include part-time residency requirements, distance learning options, and respecialization programs.
 - develop effective recruitment strategies to increase the enrollment of students from underrepresented groups in school psychology training programs, providing sufficient support to ensure a higher rate of program completion and professional employment for diverse graduates. Part-time enrollment and distance learning opportunities may be particularly helpful in encouraging individuals from culturally and economically diverse backgrounds to pursue school psychology training. Effective strategies from several current school psychology programs might be considered as national models (e.g., Zhou et al., 2004).

Research is needed to examine factors relevant to the above recommendations more carefully. Although we have significant demographic information, we lack sufficient knowledge about the roles of undergraduate education, economic and cultural variables, and training accessibility in decisions to enter the field of school psychology, particularly among underrepresented populations. A better understanding of these and other factors would enable the profession to better design effective strategies to improve the quality and availability of school psychology training and ultimately to increase the quality and quantity of the professional work force.

CERTIFICATION AND LICENSURE ISSUES

All states have established some form of certification or licensure for school psychology practice in school settings. Although most states issue a credential at one title and degree level, some states have multiple credential levels generally distinguished by graduate hours and degree (master's, specialist, doctoral).

Prevalence and Nature of Credentialing

As might be expected, nearly all school psychologists hold certification from a state education agency. Curtis, Grier et al. (2002) reported that state school psychology certification (usually through a state education agency for school practice) was held by 91% of respondents to a 1999 survey; while licensure as a psychologist, as a school psychologist, or through a derivative title (usually through a state Board of Psychology for independent practice) was reported by 35.5% of all respondents. In a few states, certification as a school psychologist by a state education agency enables the practitioner to engage in independent or private practice in non-school settings without also holding a license from a state board of psychology (Curtis et al., 1999). However, in most states, the processes of certification for school-based practice and licensure for independent practice are distinct and controlled by separate state agencies.

Reschly and Wilson (1995) estimated that 33% of school psychologists held a license allowing for practice in non-school settings. More recently, 36% of school psychologists reported holding a license for practice in non-school settings (Curtis, 2002). While it appears that more school psychologists are seeking and obtaining licenses for independent practice, there is continued evidence that most intend to use it to supplement full-time practice in public schools. Curtis (2002) reported that outside of school settings only 2% of survey respondents engaged in full-time practice and only 10% engaged in part-time practice. Thus, the majority of school psychologists who hold a license for independent practice do not use this credential for this purpose, but may seek licensing to meet local standards for supervision in their public school settings.

In addition to state certification and licensure, many school psychologists also hold the Nationally Certified School Psychologist credential [NCSP], a program developed and managed by the National Association of School Psychologists [NASP] (Batsche & Curtis, 2003). In their 1999 survey of school psychologists, Curtis, Grier et al. (2002) report that 51% of respondents held the NCSP.

Models and Standards

National Association of School Psychologists [NASP] in *Standards for the Credentialing of School Psychologists* (2000b) presented a model for state and national certification/licensure. These standards specify the following requirements: a minimum of 60 semester hours of graduate course work; demonstrated competencies in specified domains of professional practice as reflected by course work in psychology, education, and school psychology as well as associated practicum experiences; and the completion of a full academic year internship (1200 clock hours). While a significant majority of states have credit-hour requirements that are generally consistent with national standards for school psychology credentialing, a review of state certification/licensure requirements indicated specific differences exist in course work, practica, and internships (Curtis, Hunley, & Prus, 1998).

A pressing issue in school psychology, as in all education professions, is the move from course-based certification-licensing models to competency-based models. The most recent revision to National Association of School Psychologists [NASP]'s school psychology training and credentialing standards (NASP, 2000b, 2000c) exemplifies this change, providing further impetus for states to develop new competency-based models for professional certification-licensure.

In 1988, the National School Psychology Certification Board [NSPCB] was founded to provide national certification (Nationally Certified School Psychologist [NCSP]) to school psychologists who meet national training standards (Batsche & Curtis, 2003). Qualifications for this credential include completion of a 60 semester hour, specialist-level program in school psychology; designated course work and practica; completion of a 1200-hour internship; and a passing score on the Praxis II/NTE School Psychology exam. To maintain the Nationally Certified School Psychologist certification [NCSP], school psychologists must complete 75 hours of continuing professional development every 3 years. Some specific goals of the NCSP certification (NASP, 2004a) include:

- to promote uniform credentialing standards across states, agencies, and training institutions
- to monitor the implementation of National Association of School Psychologists [NASP] credentialing standards at the national level
- to promote continuing professional development for school psychologists
- to facilitate credentialing of school psychologists across states through the use of reciprocity
- to ensure a consistent level of training and experience in service providers who are nationally certified
- to promote the utilization of NASP *Standards for Training and Field Placement Programs in School Psychology* (NASP, 2000c) by training institutions
- to encourage individual members to seek national certification.

National Association of School Psychologists [NASP] recommends that states allow use of the Nationally Certified School Psychologist certification [NCSP] as one option—but not the only option—for obtaining a state school psychology credential. The number of states, now 26,² accepting the NCSP as a route to state certification has steadily increased since its inception. [NASP, 2004d]. Even states that do not allow the NCSP as an alternative route to credentialing often have standards for state certification that are similar or identical to the NCSP requirements. At least one state (Minnesota) allows school psychologists to document continuing education requirements for state license renewal by merely verifying the active status of their NCSP.

Respecialization and Credentialing

A final issue in the area of credentialing relates to certification and licensure requirements for professionals who are interested in school-based practice but have been prepared in other areas of psychology (clinical and counseling psychologists) or mental health disciplines (mental health counselors). These individuals already possess professional licenses and have previously practiced in hospital, mental health, and community-based settings. Personnel shortages in

² Alabama, Alaska, Colorado, Delaware, Florida, Georgia, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Montana, Nevada, New Hampshire, New Jersey, New Mexico, Oklahoma, Oregon, South Dakota, Texas, Utah, Vermont, Virginia, Washington, and Wyoming (NASP, 2004d).

schools, paired with employment changes in other settings, have created a new group of professionals interested in the opportunities and stability of school positions.

For example, as the demand for psychologists in private practice has diminished due to changes in health services and managed care requirements, many psychologists are seeking to fill open school psychology positions, which are numerous in many urban and rural schools across the country (e.g., Crespi & Fieldman, 2001). While psychologists and other mental health professionals have often provided limited, contractual services to students in public schools, respecialization offers possibilities as well as concerns regarding the provision of comprehensive school psychological services and the qualifications of individuals to provide services to school-aged children in educational settings (e.g., NASP's *Position Statement: Employing School Psychologists for Comprehensive Service Delivery (Revision)* (2004b). While the training and experience of child clinical psychologists may offer a means of increasing the availability of school mental health services (Crespi & Politikos, 2004; Tharinger & Palomares, 2004), concerns include the adequacy of professional preparation of allied professionals to serve child and adolescent populations, their expertise in addressing learning and instructional problems, their knowledge of special education requirements and other school support services, as well as their understanding of school structure and organization.

Similar concerns have been raised about another group seeking school psychology credentialing—related education professionals (e.g., special education teachers, school counselors). In some states, school credentialing bodies have adopted alternative routes to state certification for these individuals, including variance and provisional certificates. However, these alternatives raise concerns about quality of training and service delivery. There has been consensus among trainers and leaders in school psychology that individuals considering respecialization seek guidance from school psychology training programs to ensure adequate preparation.

Decades ago, APA (1976) formalized the policy that individuals seeking to respecialize “must meet all requirements of doctoral training in the new psychological specialty” and seek training through “those academic units in regionally accredited universities and professional schools currently offering doctoral training in the relevant specialty” (*APA Policy Manual K*, 1976, Article XIV). National Association of School Psychologists [NASP] further has defined the competencies needed for the delivery of school psychological services in its *Guidelines for the Provision of School Psychological Services* (NASP, 2000a). With a more pressing need to reach consensus on respecialization, NASP (2002) and APA (Tharinger & Palomares, 2004) are jointly examining the definition and possible criteria for respecialization in an effort to ensure the provision and ongoing regulation of quality services in the schools as well as a framework for evaluating the knowledge and professional competencies of psychologists who have backgrounds in specialties other than school psychology. The two organizations agree that respecialization should include formal preparation and supervised field experiences through APA- or NASP-approved training programs.

Future Credentialing Considerations

Current issues in school psychology certification and licensure demonstrate the connection between national standards and guidelines and state practices designed to ensure provision of high-quality services for students in public schools. State school psychology credentialing has increasingly mirrored national standards that have been developed and promoted by National Association of School Psychologists [NASP] over the past 15 years. The results of this

concentrated effort have been notable in the development of a national certification system, adoption of national standards in 26 states, and movement by states to increase state certification requirements. Critical recommendations regarding certification and licensure for the future include the following:

- Increase the number of states adopting national credentialing standards and accept the Nationally Certified School Psychologist certification [NCSP] as a means of obtaining state school psychology certification or licensure, which will facilitate reciprocity across states.
- Increase the number and diversity of school psychologists seeking national certification, including targeting newly trained and state-credentialed professionals.
- Improve coordination of requirements for school psychology professional development and continuing education to facilitate renewal of state and national credentials for school-based practice.
- Develop and implement competency-based systems for respecialization of allied mental health professionals.
- Assure the provision of comprehensive school psychological services by the most highly qualified personnel by mandating training in *Blueprint II* (and forthcoming *Blueprint III*) competency domains as criteria for initial credentialing, in contrast to the still-current emphasis on narrow gatekeeping skills.

Research is still needed to determine the impact of national standards on service outcomes, accessibility, and personnel shortages, as well as to determine the most efficient and beneficial means of providing services with respecialized personnel. We also need to better understand the barriers to state and national credentialing, particularly those faced by individuals from underrepresented populations.

SUPPLY AND DEMAND

The need for additional school psychologists to fill vacant and newly created positions in public schools has been a persistent problem over the past 25 years. This shortage has served as a recruitment tool for the field, permitting faculty to assure potential candidates for school psychology programs that positions will be waiting for them on graduation. While the discussion of school psychology shortages is not new, recent projections for the future describe a more dire situation, one of significant and chronic shortages of both school-based practitioners and higher education faculty (Curtis, 2002; Curtis, Hunley et al., 2004; Fagan & Wise, 2000; Reschly, 2000; Thomas, 1999b). Serious shortages in the availability of well-qualified school psychologists have the potential to undermine progress made in the provision of a comprehensive range of school psychological services to an increasingly diverse and at-risk population of students.

To understand the nature and impact of work force shortages and to consider appropriate solutions, it is necessary to examine the current supply of professionals and the actual demands for their services, now and in the foreseeable future.

The Supply of School Psychologists

The supply of school psychologists is determined by the numbers of current professionals, new school psychologists entering the field, and professionals who leave the field at a given point in time. Over the years, school psychologists have completed several large-scale surveys to examine issues related to supply and demand and particularly to enable the profession to project the extent of likely shortages. Unfortunately available data have limitations (e.g., variable response rates; the use of samples from state and national associations; time delay in collecting, processing, and analyzing complex demographic information; and the varied situations in different areas of the country).

Number of school psychology positions. Determining the precise number of school psychologists practicing today is difficult. Official statistics published by the USDOE are already two years old. As Reschly (2000) has explained, these figures may not tell the whole story because they are gathered as part of the states' reporting requirements for psychologists who work with students with disabilities. The total may not be limited to school psychologists and may not include school psychologists who work with nondisabled populations. However, multiple sources of data from knowledgeable sources offer the following figures:

- Fagan (2002) estimated that 25,000 to 30,000 school psychologists were employed in the U.S. in 2000.
- Reschly (2000) estimated that 30,000 trained school psychology practitioners are employed in some professional capacity.
- An analysis of the recent *25th Annual Report to Congress on the Implementation of Individuals with Disabilities Education Act [IDEA]* (U.S. Department of Education, 2005) indicated that the total number of credentialed full-time equivalent [FTE] school psychology positions in public schools as of the August 2002 school year was 27,265, up about 2,500 from the data reported a year earlier and based on August 1999 records. An additional 1,058 positions were reported to be held by individuals not fully credentialed (this may include supervised interns). This report includes only full-time equivalent [FTE] positions, not the actual number of individuals employed.

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- Using a detailed analysis of data from multiple sources, Charvat (2005) estimated that in 2003-2004, approximately 29,400 school psychologists provided services in public schools out of a total of 32,300 school psychologists providing services in the U.S. This total figure represented about 85% of U.S. credentialed school psychologists. In part, this estimate was based on data from Curtis, Grier et al., (2004) indicating that approximately 78% of all credentialed U.S. school psychologists work in public schools.

New school psychologists. The most certain source of new professionals is, and likely will continue to be, university training programs. Analyzing data from several studies of school psychology programs, Curtis, Hunley et al. (2004) concluded that approximately 1,750 new school psychologists enter the field each year and that this number is not likely to change in the near future. This figure does not include the potential group of clinical psychologists, counselors, and others in allied professions who might choose respecialization as school psychologists. To date, there is no indication that this will result in a significant addition to the work force soon (Curtis, Hunley et al., 2004).

Aging work force. An often-cited explanation of the current and predicted shortage of school psychologists is the “graying” of the profession and thus the likelihood that many will retire in the near future. Surveys have provided evidence for this trend:

- The median age of school psychologists has increased significantly since the mid-1980s (Reschly, 2000). Between 1990 and 2000, the percentage of school psychologists 40 years of age or younger declined from 46% to 31%, while those above 50 years of age increased from 19% to 33% (Curtis, Grier et al., 2002; Graden & Curtis, 1991). In 1999-2000, the mean age of university faculty in school psychology programs was 3 years older than the mean age of practitioners (Curtis, Hunley et al., 2004).
- The number of school psychologists with at least 20 years of experience doubled from 1989-1990 to 1999-2000 (Curtis, 2002).
- According to a 1999 survey, retirement within 10 years was the median response from school psychologists in 9 states (Thomas, 1999b).
- In a recent national survey, 10% of school psychologists reported that they were planning to retire within the next 3 years (Thomas, 1999b).
- Extrapolating from survey data, approximately 2,500 school psychologists were predicted to retire between 1999 and 2002 (Miller & Palomares, 2000).
- Using existing survey data, Curtis (2002) predicted that nearly 38% of all practicing school psychologists will retire by 2010, 53% by 2015, 67% by 2020, and 84% by 2025. Further, school psychologists with doctoral degrees are projected to retire in the next decade at a much higher rate than those with specialist or master’s degrees; and doctoral school psychologists holding university faculty positions will retire at an even faster rate than doctoral-level practitioners (Curtis, Hunley et al., 2004). This prediction has serious implications for maintaining the existing level of school psychology training.

Attrition. While informal studies of attrition in school psychology suggest the rates are low, Curtis, Hunley et al. (2004) noted that, without a reliable data base on the attrition rates of school psychologists, there is no empirical basis for effectively addressing retention. However, relative to other factors, attrition does not appear to be a significant factor contributing to personnel shortages.

Lack of minority professionals. Minority representation among school psychologists is a concern. Many universities with high minority enrollments do not have National Association of School Psychologists [NASP]-approved school psychology training programs (or any school psychology program at all). As a profession, school psychology has not yet established an effective means of recruiting more school psychologists from the available pools of minority undergraduate students. Thus, minority representation among school psychologists remains low (Curtis, Grier et al., 2002):

- Less than 2% of all school psychologists are African American.
- Only 3.1% of all school psychologists are Hispanic.
- Slightly more than half of 1% are Asian-Pacific Islander.
- Other than a small rise in the number of Hispanic school psychologists, the ethnicity of the profession has shown no significant change in the past decade (Curtis, Hunley et al., 2004).

Service ratio. One measure used to assess the supply of school psychologists relative to demand is the service ratio, the ratio of school psychologists to students. This metric is important in understanding the variability in service delivery. Higher ratios have been found to be associated with more time spent in traditional activities (e.g., special education evaluation and reevaluation). Lower ratios are typically associated with more time spent in counseling and consultation activities (Curtis, Grier, Abshier, Sutton, & Hunley, 2002; Curtis, Hunley, & Grier, 2002). Recent data indicate:

- There has been a steady trend toward improved ratios, with a doubling of the number of school psychologists reporting ratios of 1:1000 or better between 1989-1990 and 1999-2000 (Curtis, Grier et al., 2002). However, only one fourth (Thomas, 1999a) to slightly more than one third (Curtis, Grier et al., 2002) of school psychology positions in the U.S. meet the 1:1000 school-psychologist-to-student ratio recommended by National Association of School Psychologists [NASP] (2000a).
- The national mean ratio is variably reported as about 1:1700 (Curtis, 2002) to 1:1800 (Thomas, 1999a), although about 10% of practitioners report their ratio is greater than 1:3000 (Thomas, 1999a). Median ratio nationally is reported to be 1:1500, although 7 states reported median ratios of more than 1:2500 (Thomas, 1999a).
- Suburban settings have somewhat lower ratios than rural settings (Curtis, Grier et al., 2002), and geographic regions vary significantly (Hosp & Reschly, 2002), with lowest mean ratios reported in New England (1:1050) and highest reported in the East South-Central region (1:3860).

It is important to note, however, that ratio is a problematic metric because the impact differs depending on student population characteristics and designated job responsibilities. The dramatic ratio variation among regions of the country, states, and even within districts is important because it influences the types of professional practices used by school psychologists (Curtis, Grier et al., 2002; Reschly, 2000). These practices in turn may influence job satisfaction and ultimately affect retention rates.

Given that many school psychologists today provide services beyond special education, the ratio metric may be even less useful than ever before as a means of gauging adequacy of service delivery. A staff to student ratio of 1:1000 when the school psychologist is largely serving only students referred to or already placed in special education is a very different workload than a situation where the psychologist provides significant levels of consultation to general education

personnel, parents, and administrators regarding prevention and early intervention issues. Similarly, a school psychologist assigned full-time to provide comprehensive services to a program of 50 students with the most serious behavioral disorders may find the workload unrealistic compared to a school psychologist assigned to serve two typical elementary schools totaling 1,200 students.

A factor that has not been considered in previous research is the availability of other allied personnel. A school psychologist may be one member of a large team of professionals (e.g., counselors, social workers, health professionals) or may be the sole support team member.

The Demand for School Psychologists

A shortage exists only if the current supply of professionals is inadequate to fill the number of existing and anticipated positions. Due to the historically close ties between school psychology positions and state and federal special education mandates, as well as relevant general education mandates such as No Child Left Behind, demand will at least in part continue to be a function of legislative trends. How many school psychologists will be needed in the coming decade? Very conservative estimates (e.g., Curtis, Grier et al., 2002) use the current number of school psychologists as the projected level of need over the next 5 or more years; this projection is based on the relative stability in the number of positions in the past 5 years. Is this a realistic estimate? Several population trends and national initiatives could create more demand for school psychologists.

Changing demographics of school enrollments. Public school populations are growing, and students enter schools with ever more complex social, emotional, and learning needs that influence their ability to benefit from instruction. More students are being identified with disabilities, while recent changes in federal regulations require more comprehensive and responsive assessments (i.e., functional behavioral assessment [FBA]) that lead to effective intervention and prevention programs (Telzrow & Tankersley, 2000). Further, increased concerns about barriers to learning (e.g., Adelman & Taylor, 1998) are prompting more focused attention on school safety and student mental health. These factors reinforce the need for fully qualified school psychologists who are able to provide a comprehensive range of consultation, assessment, intervention, and prevention services to all children in the public schools.

No Child Left Behind. NCLB mandates place a heavy burden on school districts to identify scientifically proven practices, to develop and conduct assessments of student progress, and to develop remedial strategies at individual student and systemic levels. Further, as districts are likely to identify more and more students as “failing,” referral to special education may increase. Finally, inclusion of most students with disabilities in district and state assessments will require careful consideration of appropriate accommodations in both instruction and assessment. Although there is no mandate that these issues be addressed by school psychologists, these professionals have the most relevant training for involvement at some level. School psychologists can help teams, schools, districts, and/or states to:

- translate research to practice
- develop and use assessments of student progress
- develop and evaluate intervention programs
- conduct evaluations of students who may have disabilities
- determine the most appropriate accommodations for students already identified as disabled.

IDEA 2004. Changes in IDEA as adopted by Congress in December 2004 have prompted much speculation regarding the impact of the new law on school psychology practice. On one hand, some believe that changes in LD identification (particularly dropping the requirement for determining an ability/achievement discrepancy) could relieve school psychologists of some duties in conducting assessments. Yet others fear that without specific assessment mandates, some districts will simply reduce psychological services personnel. Considered from a positive stance, the potential shift away from individually directed services (particularly eligibility assessments) to more systemic supports (consultation, program development and evaluation, in-service training) may enable service delivery programs to meet more needs with fewer personnel. Because the new law does not prohibit states from allowing the same approaches used in the past, it is also highly likely that services will continue under IDEA 2004 with little or no change unless personnel shortages prompt change, at least in some districts. Given that comprehensive assessments are still required under IDEA 2004, it also seems unlikely that there will be significant reduction in the demand for school psychology positions.

Surgeon General’s Report on Child Mental Health. The Surgeon General’s report (U.S. Public Health Service, 2000) and a report by the New Freedom Commission on Child Mental Health (2003) clearly set an agenda for public institutions to better address the mental health needs of children and youth. With a strong emphasis on building “Safe Schools/Healthy Students” and “Safe and Drug-Free Schools,” federally and locally funded projects have been initiated nationwide, often employing school psychologists as staff or directors of school-based mental health programs (Nastasi, Pluymert, Varjas, & Moore, 2003).

Personnel Shortages: Implications

There is no clear and reliable means of calculating current shortages in school psychology. Even defining *shortage* is problematic—does a shortage exist only when positions are unfilled or does a high ratio of students to psychologists also reflect a shortage of “needed” personnel? The primary sources of information have been reports from professionals in state leadership positions and Annual Reports to Congress on the Implementation of the Individuals with Disabilities Act (e.g., U.S. Department of Education, 2000, 2005). One analysis of these data sources, based on information gathered in 1989 and 1993, concluded that school psychology shortages existed in most regions of the country (Lund, Reschly, & Martin, 1998).

Using an estimated addition of 1,750 new psychologists annually, estimated annual attrition rates of 5% and projected annual rates of retirements, Curtis, Grier et al. (2004) predicted that the most serious shortage of personnel will occur in this decade, peaking in 2010 at a shortage of about 8,800 professionals. Overall, they predicted that a total of nearly 15,000 school psychology positions could go unfilled between now and 2020. Even if every training program increased its annual class size by two or three students, the greater supply of graduates would not completely fill the need for additional practitioners (Miller, 2001).

Thoughtful interpretation of the most recent data supports the conclusions that there is currently a shortage of school psychologists and that a more profound shortage is likely to occur in the near future (Curtis, Grier et al., 2004; Curtis et al., 1999; Fagan & Wise, 2000; Miller & Palomares, 2000; Thomas, 1999b). This has important implications for the field and the quality of psychological services available in the schools.

Not only are we predicting a shortage in the number of school psychologists, we most likely will also be hampered by a shortage in the number of school psychologists who are ethnically diverse and bilingual. Given the serious shortages of university trainers, we will also likely face shortages of professionals trained to provide school-based mental health services, including crisis support, trained to provide early intervention and prevention services called for in new legislation and professional standards, trained to provide culturally competent services, and trained to address organizational change. What will be the consequences of thousands of unfilled positions in school psychology in the next 10-20 years?

Loss of positions. Some school districts have already experienced the consequences of unfilled positions. The positions are reallocated to other service areas where personnel are available, eliminated to offset budget problems, or transformed into contracted services with outside providers.

Loss of training opportunities. The projected high rates of retirement among university faculty bodes trouble for recruitment and training efforts needed to sustain (if not increase) the work force. As noted, Tingstrom (2000) identified 54 open faculty positions in 53 institutions in 1999-2000, or 1 open position in every 4 school psychology training programs. A later analysis of faculty openings found that 30% of the positions went unfilled (Curtis, 2002).

Already there is evidence that training programs which could not maintain sufficient faculty to support sufficient enrollment to justify the costs of training programs have closed. Programs that are able to continue despite open faculty positions must either accept fewer students and thus lower revenue or increase the ratio of faculty to students, endangering the quality of training provided. At a time when even maintaining the status quo is insufficient, the number of new professionals entering the field is likely to decline.

Loss of quality comprehensive services. In the end, loss of positions often means fewer services available for students and staff, lower standards, and less accountability. If there are fewer professionals available for prevention and early intervention, more students will likely be identified as failing and referred to special education, increasing overall costs as well as labeling and segregating students. If services are allocated to other personnel with less training, services likely will be less effective and accountability may be sacrificed, which can lead to noncompliance and subsequent financial consequences as well as less desirable outcomes for students. With fewer adequately trained personnel, it will be difficult to address key issues in instruction and mental health noted as goals for the profession (Harrison et al., 2004).

Continued shortage of diverse professionals. General shortages most likely mean a continued shortage of professionals from diverse backgrounds. With increasing numbers of students from culturally and linguistically diverse families entering the public schools, the disparity between personnel and clientele will create serious challenges to effective service delivery.

Credentialing alternatives. One undesirable but conceivable outcome of the personnel shortage could be implementation of alternatives to full credentialing. While most recent U.S. Department of Education data (2005) indicated that 3% of all school psychology positions are held by individuals not fully credentialed in their states, this percentage could increase if fully credentialed school psychologists are in short supply. Provisional, emergency, or temporary certification might be permitted in some states where fully credentialed school psychologists are not available to fill open positions. In some states there may be pressure from school

administrators to reduce requirements for full certification to create a larger pool of potential employees. If alternative criteria are implemented, lower standards could lead to less competent services and greater liabilities for school districts.

Future Supply and Demand Considerations

As long as the balance of supply and demand is skewed in the direction of personnel shortages, the school psychology profession will face significant challenges in achieving its goals for comprehensive, culturally competent service delivery. Strategies to preserve the dwindling work force concern recruitment, retention, retraining, and a general reconceptualization of how we deliver services.

Recruitment. Other than informal surveys, we have little data regarding the process of selecting school psychology as a career choice and thus are “shooting in the dark” in our efforts to promote this profession among high school and college students or among older adults seeking career change. Future research is needed to help identify the variables that are crucial to selecting a career in school psychology. In the meantime, it is advisable that recruitment is addressed as broadly as possible:

- School psychology organizations and training programs may need to craft more creative public relations campaigns to introduce and encourage prospective school psychology candidates to enter the profession.
- Interest in possible careers in psychology can be fostered by school psychologists working in high school settings. Many students have no idea that there is a school psychologist at their school. High school psychologists can play critical roles in increasing the visibility of the profession to students at a time when they are beginning to explore career options.
- At colleges and universities, students in psychology, child development, and education departments offer a large pool of potential school psychologists. National, state, and local organizations need to establish strong ties with undergraduate faculty and advisors to ensure that school psychology is on the radar screen as students consider graduate study. Students attending universities that house a school psychology program are an ideal group for school psychology programs to target through seminars, research opportunities, and field experiences offered to undergraduates.
- An effective network among training programs to “share” applicants is needed. There were 900 applicants to school psychology programs in the fall of 1999 who met requirements but were not admitted to a program (Miller & Masten, 2000); while some smaller, rural programs had open slots, but not enough qualified applicants to fill them.
- Clinical and counseling psychologists, who tend to be in ample supply, are promising pools of new school psychologists. Professional associations and credentialing bodies need to develop standards for respecialization and work with university training programs to ensure that flexible programs with high standards are available.
- Recruitment of minority professionals has to take place at all levels from high school through college and to include individuals with careers in affiliated fields (e.g., teaching, special education, paraprofessionals).
- Recruitment of practitioners into university faculty positions is essential if we are to replenish the corps of school psychology trainers and thus maintain quality training programs. Training programs may be wise to partner with local school district psychologists to develop joint teaching and consulting relationships to attract qualified practitioners to open faculty positions.

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- Recently retired practitioners and trainers may support the profession even as they leave full-time, active practice. These veteran professionals might be attracted to part-time teaching, supervising, and mentoring opportunities, as well as serving professional associations and programs as advocates for careers in school psychology. In addition, some persons who retire from either a university or school setting may be interested in a full-time opportunity in the other setting.

Retention. As noted, little is known about factors related to attrition in school psychology. With few opportunities for advancement, school psychologists seeking administrative positions often seek training and credentialing as school principals or directors of special education and ultimately leave the profession. Some seek licensure for private practice and leave public school settings for community clinics. We need to give significant attention to strategies that may serve to help maintain the current work force:

- Beyond job satisfaction surveys, we need more rigorous research regarding factors related to retention and attrition.
- The first few years in a school psychologist's career are important. Models for supporting new professionals should be developed, evaluated, and disseminated, for example, new staff mentoring (Canter & Reid, 2001) and professional supervision (Harvey & Struzziero, 2000).
- Local, state, and national organizations need to promote opportunities for school psychologists to advance on career and salary scales without leaving the profession (e.g., establishing roles as coordinators, supervisors, in-service trainers, program developers and evaluators).

Retraining. For the remaining work force to be viable, there must be opportunities for both veteran and novice school psychologists to learn new skills that will enable them to better serve a changing student population, even if there are fewer school psychologists to meet the challenge. Continuous professional development could also help retain professionals. Research on key factors in effective in-service training, including optimal use of technology, is needed. Retraining strategies may include:

- sequenced professional development programs that address skills needed to respond to new mandates, such as response to intervention [RTI], problem-solving models, crisis prevention/intervention, and school-based mental health
- coaching and mentoring programs that pair professionals of specific expertise with those seeking new and improved skills
- distance learning opportunities through well-established university training programs and professional organizations.

Reconceptualization of service delivery. Not all consequences of a personnel shortage are negative. Given the reality of the personnel shortage, major organizations of school psychology came together at the 2002 Future of School Psychology Conference to consider how to fulfill the profession's mission in the context of a declining work force (Harrison et al., 2004). Among the recommendations were a reconceptualization of service delivery that places more emphasis on systemic consultation and intervention—moving away from the “one child at a time” approach to develop services that will address the needs of groups, classrooms, schools, and districts. Such an approach has the potential not only to enable school psychology to remain viable in the 21st century despite shortages, but to significantly impact the lives of more students and families. This shift in the paradigm of the profession has been advocated in recent years by key scholars

and professional leaders (e.g., Curtis, Hunley et al., 2004; Harrison et al., 2004; Reschly & Ysseldyke, 2002; Sheridan & Gutkin, 2000).

CONCLUSIONS

The 2002 Conference on the Future of School Psychology, like earlier landmark gatherings such as the 1954 Thayer Conference (Cutts, 1955) and 1981 Olympia Conference (Brown et al., 1982), served as a pivotal effort to redirect the profession to meet the needs of children and schools in the coming decade and beyond more effectively. Nearly every goal area and every strategic plan emerging from the Futures Conference as well as practice domains from *Blueprint for Training and Practice II* (Ysseldyke et al., 1997) and revised professional standards have significant implications for the training, credentialing, and availability of personnel. To implement a new agenda for the profession that encompasses new models of comprehensive services, school psychology must ensure a sufficient and sustainable pool of diverse, trained, and credentialed practitioners.

In this paper, we briefly presented the history of school psychology in the context of professional roles, training, and credentialing and considered key issues facing the profession today:

1. expanding roles beyond gatekeeping to better integrate services that support student learning and mental health
2. providing more culturally competent services to a more diverse population
3. resolving the challenges of a potential shortage of qualified personnel
4. examining how training, credentialing, and supply and demand issues impact these key issues in current and future practice.

In each area we have noted where more research is needed and what strategies might be employed to address critical personnel dilemmas, particularly the looming shortage of practitioners. Whether or not school psychology can effectively address the goals identified at the Futures Conference will depend largely on the profession's ability to meet these challenges.

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