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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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ABSTRACT

The role of paraprofessionals in education has evolved over the past 50 years from assistance with clerical tasks toward more instructional tasks. The contemporary role reflects changes in educational practices, evolution of teachers' roles, shifts in legislation and policy, and shortages of qualified teachers. This paper reviews the history of the paraprofessional position and the current literature on supply and demand, preparation and training, and certification and licensure. A summary of the issues is provided, and implications for further research are discussed.

INTRODUCTION

While reliance on paraprofessionals has increased in virtually all settings, advancement opportunities, systematic training and preparation, and supervision have not (Boomer, 1982).

The number of paraeducators reported in the 1999-2000 survey has expanded by a minimum of 50,000 since results of a similar survey in 1996...[yet] there has been very little progress in finding viable solutions to the problems connected with the employment, preparation, and supervision of paraeducators (Pickett, Likins, & Wallace, 2002).

In the past 20 years—from Boomer in 1982 to Pickett et al. in 2002—paraprofessionals have evolved as important members of instructional teams providing services to students with special needs; but the infrastructures to support them have not substantially improved. The role of paraprofessionals in the past 50 years has moved from assistance with clerical tasks toward more instructional tasks. Their changing role reflects changes in educational practices, evolution of teachers' roles, shifts in legislation and policy, and shortages of qualified teachers. These changes require the development of: (a) standards for paraprofessional roles and competencies, (b) infrastructures to prepare paraprofessionals for their new roles, and (c) administrative systems to support instructional teams at the school level. The active involvement of many different constituents—policymakers in federal and state governments, administrators in state and local education agencies (SEAs and LEAs), personnel developers in two- and four-year institutions of higher education (IHEs), researchers, professional organizations and others—is required. Clearly, although solutions are possible, the evolution of the paraprofessional role is not without its issues. Solutions require that the actions of constituents be aligned and coordinated. Whereas paraprofessionals (e.g., paraeducator, teacher assistant, instructional assistant, education technician, transition trainer, job coach, therapy assistant, home visitor) work in a variety of roles and environments, this paper focuses on their work with students with disabilities, K-12, in schools and programs across the U. S. Because the title paraprofessional is given to this work force in legislation, the term will be used, even though Pickett's recent definition of *paraeducator* best defines the group to which this paper refers. Pickett's definition emphasizes the role of the paraprofessional as one who assists with the delivery of services under the direction of licensed staff:

Paraeducators are school employees who: (1) work under the supervision of teachers or other licensed/certificated professionals who have responsibility for (a) identifying learner needs, (b) developing and implementing programs to meet learners needs, (c) assessing learner performance, and (d) evaluating the effectiveness of education programs and related services, and (2) assist with the delivery of instructional and other direct services as assigned and developed by certified/licensed professional practitioners (Pickett et al., 2002).

The paper reviews the history of the paraprofessional position; the current literature on supply and demand, preparation and training, and certification and licensure; a summary of the issues; and implications for further research.

EVOLUTION OF THE PARAPROFESSIONAL ROLE

Historical Summary

The role of paraprofessionals as instructional supports and key members of educational teams does not have a long history. Although numbering more than 500,000 today (National Center for Educational Statistics [NCES], 2000), as recently as 1965 there were fewer than 10,000 (Green & Barnes. 1989). As their numbers have increased, their roles have expanded. In 1997, Pickett and Gerlach identified several events and trends that have caused policymakers, educators, and others to reassess the role of the paraprofessional work force, including; continuing efforts to include youth with disabilities in the general education classroom and their communities (Blalock, 1991; Hales & Carlson, 1992; Hofmeister, 1993; Morehouse & Albright, 1991; Pickett, 1996); growing need for occupational therapy, physical therapy, and speech-language pathology services for children and youth of all ages (Fenichel & Eggbeer, 1990); increasing numbers of students from ethnic and language minority heritages in school systems nationwide (Ebenstein & Gooler, 1993; Haselkorn & Fiedeler, 1996; Office of Special Education Programs and Rehabilitation Services [OSERS], 1993); continual shortages of teachers and related services personnel (NCES, 1993; OSERS, 1993); and changing and expanding roles of school professionals as classroom and program managers (French & Pickett, 1997; Pickett, Vasa, & Steckelberg, 1993; Putnam, 1993; Snodgrass, 1991).

These developments, which had a significant impact on the emerging role of paraprofessionals in special education, are relevant today. The most logical framework to describe the evolving paraprofessional role is to review the past, to give an overview of the present, and finally to anticipate the future.

1950s and 1960s

Paraprofessionals worked in education and human service programs as far back as the early 1900s. However, it was not until the mid-1950s that their value was recognized. Post-war shortages of teachers led local school boards to look for alternative service providers. Paraprofessionals were recruited for clerical functions to free teachers for instruction (Frith, 1982; Lindsey, 1983; Morehouse & Albright, 1991; Pickett, 1996).

The Ford Foundation funded the Bay City Project (Michigan Schools), which recruited and trained paraprofessionals for clerical and administrative tasks so that teachers could provide more direct instruction to students in general education programs (Gartner, 1971; Pickett, 1994). Although paraprofessionals were employed across the country based on this effort, the approach was not without critics, who were concerned that paraprofessionals would be used as cheap labor to replace teachers or that their presence would justify increased class sizes.

While the effects of the Bay City Project were being realized in general education, an equally significant project was implemented in special education. Cruickshank and Haring (1957) initiated the first demonstration project to investigate the responsibilities of paraprofessionals in special education. They found that the primary responsibilities of paraprofessionals were the same regardless of educational settings: (a) a regular kindergarten that included students with

blindness, (b) another classroom that included students labeled gifted, and (c) six different types of self-contained special education classrooms. The primary responsibilities reported in each of the settings included noninstructional tasks (e.g., playground supervision, housekeeping tasks in the classroom, material preparation, and record-keeping). In summary, these authors indicated that the use of paraprofessionals allowed professionally trained teachers to use other skills. They concluded that teacher assistants could be effectively utilized to enrich the instructional program.

Many events throughout the 1960s impacted the roles of paraprofessionals in education. The civil rights movement, efforts to improve equality for women, and early campaigns to secure entitlements for children and adults with disabilities led to expanded programs across education and human services (Gartner & Riessman, 1974; Pickett, 1994). In fact, the very nature of schools began to look different. These social changes brought a new emphasis and increased societal expectations, placing so many new demands on schools that the status quo was no longer good enough. Compensatory education for disadvantaged students, individualized education for students with disabilities, specialized programs for students from various cultural backgrounds, and an increase in governmental infrastructure to support the delivery of special services stimulated the employment of paraprofessionals (Green & Barnes, 1989). In addition to clerical support, teachers now needed instructional assistance.

Similarly, an increase in public attention to the inequities in educational opportunities for students from minority groups led to a growing lack of confidence by parents and policymakers in the ability of teachers to meet the needs of students from diverse cultural backgrounds (Gartner & Reissman, 1974; Pickett, 1994). This led to the employment of paraprofessionals from the local communities of students and their families to serve as liaisons between home and school. For the first time, paraprofessionals provided instructional support to students and their parents (Green & Barnes, 1989).

More theory and position papers about using paraprofessionals in instructional positions were published (Doyle, 1995). For example, many projects and reports from general education (e.g., Headstart and Title I of P.L. 89-10) suggested that a paraprofessional in a classroom could relieve the teacher of several tasks and facilitate the professional responsibilities of the instructor (Blessing, 1967). Although Blessing found that paraprofessionals working in Title I programs performed mostly noninstructional tasks, Esbenson (1966) and Blessing (1967) agreed that, given appropriate supervision, paraprofessionals could perform instructional activities and that an increased, expanded use of paraprofessionals could lessen the impact of growing teacher shortages.

While paraprofessionals gained momentum, opportunities for people from varied cultural backgrounds, women, and individuals with disabilities to achieve professional status improved. In 1965, *New Careers for the Poor* described IHE programs that would encourage paraprofessionals to enter the professional ranks (Pickett, 1986). This book also served as a catalyst by naming the expanding movement—*New Careers*. This evolution in the preparation of paraprofessionals reflected the current political and social climate, which promoted more opportunities for more people.

1970s and 1980s

The federal government played an active role in the New Careers movement through legislative actions, funding, and administrative guidelines (Pickett, 1986). For example, the U. S. Department of Education (USDOE) supported the Career Opportunities Program (COP) that trained 20,000 individuals in career advancement programs in 1971 (Pickett, 1986). COP programs were developed jointly by school districts and teacher education programs to support paraprofessionals who wanted to become teachers.

At the same time that IHEs were recruiting paraprofessionals into teacher education programs, states were developing certification procedures, identifying duties of paraprofessionals, mandating the use of paraprofessionals in some programs, and addressing training and career mobility for paraprofessionals wanting to remain in their current roles. Although COP ended with positive reactions from all involved in 1977, few LEAs or IHEs that originally participated in COP continued to offer opportunities for career development based on the COP model. As federal funding for all education programs decreased during the 1980s, interest in improving the performance of paraprofessionals waned as their use increased (Pickett, 1994). Lindsey (1983) reported that double-digit inflation, shrinking tax bases, and other economic factors were responsible for reducing funds for education. SEAs and LEAs provided services in a cost-effective way by hiring and integrating paraprofessionals into existing organizational and administrative structures, while practices associated with deploying, managing, and training paraprofessionals became unstructured and often non-existent.

1990s, 2000, and 2001

These years brought changes in federal legislation for preparation of paraprofessionals, changes in teacher roles, need for clarifying appropriate roles for paraprofessionals, and new attention to educational reform and accountability.

The role of paraprofessionals has continued to evolve. Educational reform efforts are promoting new roles for teachers as managers and instructional team leaders. Specifically, teachers have greater responsibilities for program and classroom management, participation in school site decision making, and implementation of accountability systems and measures. Changes in teachers' roles have implications for the roles of paraprofessionals (Pickett, 2000; Pickett et al., 2002). In addition, provisions in federal legislation require that all personnel be adequately prepared for their roles and responsibilities. This legislation includes 1997 Amendments to the Individuals with Disabilities Education Act (IDEA) and the No Child Left Behind Act of 2002 (NCLB).

The amendments to IDEA (P.L. 105-17) and NCLB (P.L. 107-110) have important implications for the role and preparation of paraprofessionals. Both of the laws refer to preparation and supervision requirements needed for paraprofessionals to provide specific services. The 1997 Amendments to IDEA require training and supervision of paraprofessionals who assist in the provision of special education services:

A State may allow paraprofessionals and assistants who are appropriately trained and supervised, in accordance with State law, regulations, or written policy, in meeting the requirements of this part to be used to assist in the provision of special education and related services to children with disabilities under Part B of the Act. [34 CFR §300.136(f)]

In addition, NCLB established paraprofessional training requirements for new paraprofessionals (anyone hired on or after January 8, 2002). NCLB also sets a deadline 4 years from enactment (January 8, 2006) for currently employed paraprofessionals to meet one of the following requirements: (a) complete at least 2 years of study at an IHE; (b) obtain an associate (or higher) degree; or (c) meet a rigorous standard of quality and demonstrate, through a formal state or local academic assessment, knowledge of and the ability to assist in instructing, reading, writing, and mathematics; or knowledge of and the ability to assist in instructing, reading readiness, writing readiness, and mathematics readiness, as appropriate [Title I, Section 1119/b]. These requirements apply to any paraprofessional whose position is directly funded by Title I and who provides instructional support services. In a Title I school-wide program, any paraprofessional providing instructional support services will have to meet these requirements, including paraprofessionals providing special education services that are instructional in nature. addition, the regulations state that a paraprofessional must work under the direct supervision of a teacher. The teacher plans the paraprofessional's instructional activities and evaluates the students with whom the paraprofessional works. In addition, the paraprofessional must work in close proximity to the teacher. Assistants without instructional duties are not included in the definition of paraprofessional in this law.

These requirements have prompted a renewed interest in competencies and standards, credentialing systems, and infrastructures to support preparation and ongoing development. More research on the training needs, supervision, appropriate use, and efficacy of paraprofessionals provides the basis for the results and recommendations of this paper.

A REVIEW OF CURRENT LITERATURE

Supply and Demand

Constituents need information for decision making about the paraprofessional work force and yet simply determining the number of paraprofessionals working in schools across the nation is a huge challenge. Some data collected by federal agencies based on information reported by SEAs or self-reported by individuals are at best incomplete and may provide an inadequate picture of paraprofessional employment. In addition, data are often not reported in a timely fashion, which delays an understanding of the current employment situation.

Given these issues, information about the paraprofessional work force reported here comes from three sources. No one source includes the entire paraprofessional work force, and the data cannot be aggregated. The *Occupational Outlook Handbook (2000-2001)* reported approximately 1.2 million teaching aides/assistants employed in public/private schools and early childhood/daycare centers. Although the *Handbook* suggests that many of these individuals work in special education, no breakdown is given. Since 1987-1988, the Schools and Staffing Survey (SASS) of the National Center for Educational Statistics (NCES) has gathered data on nonprofessional staff, first published in the 2000 report. Although the SASS figures are based on a sample of schools, each year the NCES Common Core of Data (CCD) program gathers staffing information from all LEAs in the U. S. **Table 1** shows the number of full-time and part-time, public and private non-professional staff—categorized as library/media aides, teacher aides, and Chapter I aides—from the 1993-1994 SASS results (NCES, 2000).

Table 1. Full-Time (FT) and Part-Time (PT) Elementary and Secondary School Non-Professional Staff, 1993-1994

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	Library/media aides		Teacher aides		Chapter I aides		
					alues		
	FT	PT	FT	PT	Combined*		
Public	31,998	23,271	318,873	151,372	96,692		
Private	1,952	5,446	25,282	25,865	1,681		
Total	33,950	28,717	344,155	177,237	98,373		

*May include teacher aides or other employees counted elsewhere in this report. [NCES, 2000. (Schools and Staffing Survey: 1993-1994 (Public and Private School Questionnaires)]

Table 2 reports non-professional staff in two categories (aides and library support staff) for CCD and SASS data sources. These estimates provide a general idea of the number of elementary and secondary school paraprofessionals in these categories.

Pickett et al. (2002) states that there are approximately 550,000 paraprofessionals currently employed in full-time equivalent (FTE) positions in the U.S. The number was generated from a 1999-2000 survey of chief state school officers in the 50 states, the territories of the U.S., the District of Columbia, the Bureau of Indian Affairs, and the Department of Defense conducted by

Table 2. Aides and Library Support Staff in the Common Core of Data (CCD) and Schools and Staffing Survey (SASS), 1993-1994*

	CCD	SASS
Aides	450,359	470,245
Library support staff	37,898	55,269

^{*}Not all relevant paraprofessionals are included in the two reported categories due to the confusion of survey item labeling.

[NCES, 2000. (Schools and Staffing Survey: 1993-1994 (Public and Private School Questionnaires)]

the National Resource Center for Paraprofessionals (NRCP). This number represents an increase of 50,000 paraprofessionals (10%) since a similar NRCP survey in 1996. Of the 550,000 paraprofessionals, approximately 290,000 work with children and youth with disabilities, and 130,000 or more work with multilingual learners, Title I, and other remedial education programs. About 130,000 work as library/media paraeducators, computer assistants, etc. In addition to the increase in paraprofessionals, the NCES reported a 48% increase in instructional paraprofessional employment compared to a 13% increase in student enrollment and an 18% increase in teacher employment from 1990 to 1998 (NCES, 2000)—noteworthy differences in growth that should be analyzed. Gerber, Finn, Achilles, and Boyd-Zaharias (2001) suggests that the rapid increase in the number of paraprofessionals reflects: (a) the expansion of special education and Title I programs, (b) the perception that the use of paraprofessionals is a low-cost alternative to small classes, and (c) the perceived success of paraprofessionals in affecting student engagement, achievement, and other positive classroom contributions.

Pickett (1994) stated that the largest recorded use of paraprofessionals in schools was due to federal legislation, e.g., Chapter I of the Improving America's Schools Act (IASA) and the Individuals with Disabilities Education Act (IDEA) passed in 1990. The legislation emphasized the inclusion of students with disabilities into the general education and community environments and increased the need for and use of paraprofessionals. Similar to changes in the 1990s, more demands on teachers to address the individual needs of students increased reliance on the paraprofessional work force.

Clearly, as the number of paraprofessionals continues to increase, recruitment strategies must improve. Most of the literature addresses the recruitment of paraprofessionals into the teaching profession. Paraprofessional-to-teacher programs (Blalock, Rivera, Anderson, & Kottler, 1992; Epanchin & Wooley-Brown, 1993) are often used to increase the teaching work force, e.g., for bilingual certified teachers, for teachers who understand unique cultural differences (Genzuk, 1997; Miramontes, 1990; Villegas & Clewell, 1998). Literature also supports the need to recruit and retain paraprofessionals in rural areas, transition programs, schools serving linguistically diverse students, and programs for students who are autistic or who need positive behavioral supports (Boomer, 1994; Harper, 1994; Miramontes, 1990; Morehouse & Albright, 1991; Nittoli & Giloth, 1997; NCPSE, 2000; Palma, 1994; Rogan & Held, 1999; Rueda & DeNeve, 1999). For example, Passaro, Pickett, Latham, and HongBo (1994) reported a shortage of paraprofessionals in the three rural states they studied. Respondents reported these reasons for attrition: (a) lack of opportunity to advance, (b) poor salary, (c) lack of administrative support, and (d) lack of respect. These experiences, which are somewhat characteristic of the

paraprofessional work force, have been reported by many authors, as summarized by Jones and Bender (1993).

Not surprisingly, Riggs and Mueller (2001) found that the retention of paraprofessionals was most often threatened by other positions that offered higher salaries or greater career advancement. In addition, they found that paraprofessionals reported that the following factors positively affected their self-esteem: (a) invitations to team meetings centered on the students with whom they work, (b) adequate break time, (c) adequate substitute coverage, and (d) perception as a "team member" working "along side of" the teacher. In a study of general educators, special educators, paraprofessionals, and administrators, Giangreco, Edelman, and Broer (2001) uncovered six major themes associated with respect, appreciation, and acknowledgement of paraprofessionals, including: (a) nonmonetary signs and symbols of appreciation. (b) compensation, (c) important responsibilities, (d) noninstructional responsibilities, (e) desire to be listened to, and (f) orientation and support. To address the need for hiring paraprofessionals who can best serve individuals with disabilities, Blalock (1991) recommends strategies, including: (a) a hiring process, (b) vocational assessments, and (c) interview questions. Clearly, schools must review and create meaningful ways to support their strategies to recruit and hire paraprofessionals. In addition, state and federal agencies must implement efficient, accurate methods of determining the number of paraprofessionals working in K-12 education and identify the program funds used to support their positions.

Preparation and Training of Paraprofessionals

According to Guskey and Huberman (1995), professional development is a crucial component of educational improvement. Many have likened the *paraprofessional* or *paraeducator* to a *paralegal* or *paramedic*. Although the para-role may be similar in these professions, the requirements for preservice preparation and ongoing development are very different.

In 1974, after reviewing the literature, Reid and Reid classified the duties of paraprofessionals working in special education classrooms with students with mild disabilities as: (a) clerical, (b) housekeeping, (c) noninstructional, and (d) instructional. May and Marozas (1981) stated that "the implications of the tasks delineated under these categories are that the teachers teach and paraprofessionals prepare materials and manage the behavior of children" (p. 228). The Study of Personnel Needs in Special Education (SPeNSE, 2001) found that there were differences by region and district in the types of services paraprofessionals provided, and the majority of special education paraprofessionals nationwide spend at least 10% of their time on each of the following activities: (a) providing instructional support in small groups, (b) providing one-on-one instruction, (c) modifying materials, (d) implementing behavior management plans, (e) monitoring hallways/study hall/other, (f) meeting with teachers, (g) collecting student data, and (h) providing personal care assistance (SPeNSE, 2001).

Other studies found similar results (Downing, Ryndack, & Clark, 2000; French, 1998; Lamont & Hill, 1991; Minondo, Meyer, & Xin, 2001; Pickett & Gerlach, 1997; Pickett et al., 2002; Wallace, Stahl, & MacMillan, 2000). In some studies, paraprofessionals reported being responsible for a student's instructional program when that is the responsibility of the teacher (Giangreco, Edelman, Luiselli, & MacFarland, 1997; Marks, Schrader, & Levine, 1999; Wallace,

et al., 2000). Downing et al. (2000) found that paraprofessionals reported a high level of responsibility in their jobs and that they made decisions regarding adaptations, provided behavioral support, and interacted with team members, including parents. This is a huge concern that points to a need for training and preparation, not only of paraprofessionals but also of those who direct and supervise their work. Katsiyannis, Hodge, and Lanford (2000) reviewed due-process hearings, Office of Civil Rights (OCR) rulings, OSEP memoranda, and court rulings from 1990-1999 for relevant legal parameters. Four important findings are:

- (1) Public schools must supply services provided by paraprofessionals if these services are necessary for a student to receive a free appropriate public education (FAPE).
- (2) Paraprofessionals must be qualified to perform assigned services as indicated in the IEP, and public schools have broad discretionary power regarding personnel.
- (3) Paraprofessionals who lack appropriate training may not directly provide special education services in either pubic or private schools.
- (4) Appropriately trained paraprofessionals may assist in the provision of special education services only if certified special education personnel supervise them.

Both amendments to IDEA and NCLB require that paraprofessionals must be supervised by licensed staff to provide instructional support and special education services. This supervision appears critical for a number of reasons. For example, many studies have found that paraprofessionals often report having no job descriptions, formal orientations, or annual performance reviews (Gerber et al., 2001; Wallace et al., 2000). In addition, Wallace et al. (2000) reported that 58% of the nearly 3,600 paraprofessionals surveyed did not have planning time with the teachers who directed their work. Coupled with findings that paraprofessionals are reporting more responsibility than appropriate for their roles, these findings suggest that paraprofessionals may not be receiving adequate guidance or preparation. It becomes critical that teachers and others ensure that paraprofessionals know what their roles are and how to perform them.

There is agreement in the literature that teachers should assign tasks, design instructional plans, provide on-the-job training, conduct planning sessions, and monitor the paraprofessional's day-to-day activities (Doyle, 1997; French, 2001; Morgan & Ashbaker, 2000; National Joint Committee on Learning Disabilities [NJCLD], 1999; Pickett & Gerlach, 1997; Wallace et al, 2001). There is also agreement that teachers are unlikely to receive the knowledge and skills required for paraprofessional supervision during either their preservice teacher preparation or later during professional development opportunities. Although paraprofessional supervision is an issue related to teachers, it has a fundamental influence on the success of paraprofessional and teacher teams.

Paraprofessionals who report receiving more inservice training or preservice preparation feel better prepared to fulfill their job responsibilities (SPeNSE, 2001; Wallace et al., 2000). The SPeNSE project reported that, "Paraprofessionals who receive more professional development in a specific work-related task feel consistently more skillful in that area. . . . The project also

reports, "As a group, more educated paraprofessionals spend far more time in professional development, which may increase differences in levels of skill" (p. 2). Numerous recent studies and opinion pieces indicate that there is a lack of training for paraprofessionals (Idea Partnerships, 2001; Downing, et al., 2000; French & Chopra, 1999; Hilton & Gerlach, 1997; French & Pickett, 1997; Pickett et al., 2002; Wallace, et al., 2000). In the 2002 *State of the Art Report* published by the National Resource Center for Paraprofessionals in Education and Related Services (NRCP), Pickett et al. report little progress in finding solutions to the problems associated with the employment, preparation, and supervision of paraprofessionals:

With rare exceptions, policies, standards, and systems for improving the performance and productivity of teacher and paraprofessional teams are almost non-existent. Paraprofessional training, when it is available, is usually highly parochial and sporadic, does not recognize the similarities in the core skills required by the vast majority of paraprofessionals, nor is it competency based, or linked to systematic opportunities for their career development. State education agencies and/or other state agencies responsible for developing and administering teacher credentialing systems have not joined forces with institutions of higher education to establish standards for licensure to ensure that teachers have the knowledge and skills they require to supervise paraprofessionals. Moreover, paraprofessional issues have yet to be addressed by various reform initiatives concerned with empowering teachers and increasing the accountability and effectiveness of education systems and practices. (Pickett et al., 2001)

As responsibilities increase and the preparation and ongoing development of paraprofessionals remain minimal, several topics relevant to paraprofessional training needs have emerged in the literature since 1996: positive behavioral supports (Downing, et al., 2000; French, 1998; Hansen, 1997; Wadsworth & Knight, 1996; Whitaker, 2000); specifics about disabilities (Downing, et al., 2000; Hansen, 1997; Kotkin, 1995; Miramontes, 1990; Radazewski-Byrne, 1997; Whitaker, 2000); teaching strategies (Downing, et al., 2000; French, 1998; Wadsworth & Knight, 1996); communication and problem-solving strategies (Downing, Ryndak, & Clark, 2000; French, 1998; Wadsworth & Knight, 1996); transition-related information and job coaching (Rogan & Held, 1999; Whitaker, 2000); early childhood special education and child development (French, 1998; Hadadian & Yssel, 1998); special education law, confidentiality (French, 1998; Hansen, 1997); use of computers and accommodations (Hansen, 1997); inclusion (Hansen, 1997; Minondo, et al., 2001; Wadsworth & Knight, 1996; Riggs & Mueller, 2001); health and safety (French, 1998; Hansen, 1997); development of independence and mobility (Wadsworth & Knight, 1996); and observation and data collection strategies (Wadsworth & Knight, 1996).

Teachers, paraprofessionals, and administrators have different perceptions about the need for paraprofessional training. A study by Wallace, Shin, Bartholomay, and Stahl (2001) found a statistically significant difference with paraprofessionals reporting the greatest need. Even where training exists, paraprofessionals report needing more or different training opportunities. Whitaker (2000) found that half of the school districts surveyed (43) employed paraprofessionals to work with students with disabilities in occupational education classes. Although 33% of the districts that employed paraprofessionals provided training, 94% of the coordinators and 93% of the paraprofessionals reported that more training was still needed. The coordinators and

paraprofessionals rated highly the need for training in job coaching, behavior management, and knowledge of students with disabilities. Districts may offer training, but it may not be the training needed by paraprofessionals. Authentic professional development opportunities will be specific to their jobs and their students.

Some states have established career ladders for paraprofessionals' recruitment, preparation, and ongoing development. High school students are recruited into 2-year programs leading to paraprofessional preparation and/or continued development leading to a teaching certificate. A person might work on a certificate of competence, a specified diploma, and a 2-year degree, and then move to a 4-year program and pursue a teaching certificate. Recruiting paraprofessionals into teaching might alleviate current and future teaching shortages, but strategies for recruiting paraprofessionals are important in their own right and must be identified. The paraprofessional work force is a legitimate educational employee group that must be prepared for its changing and growing responsibilities. The career ladder model is a potentially sustainable infrastructure for paraprofessional preparation.

Several guiding principles may be used in designing preservice and inservice training for paraprofessionals: (a) training should be aligned with a set of competencies and standards of performance; (b) specific training formats are best for teaching certain skills, e.g., an overview of the school-wide behavioral plan might take place in a large group, but what that means for a specific student with an IEP might require on-the-job training and modeling by a teacher; (c) training should be comprehensive and include varied opportunities and specific instruction on the needs of specific students; (d) training opportunities should be organized for ongoing paraprofessional development; (e) an initial orientation to the school's procedures and programs must be followed by opportunities for ongoing, targeted training and supervision; (f) teacher/paraprofessional teams can discuss new strategies, appropriate implementation roles, and learn the same content at the same time; (g) when paraprofessionals receive specific-skill training, it is important to follow up and ensure that they implement the skill correctly; positive feedback is important to encourage appropriate use of the skill; (h) finally, training and preparation must be aligned with appropriate role expectations and day-to-day supervision.

Certification and Licensure

There is substantial agreement that paraprofessionals play an important role in educating students with disabilities (French & Pickett, 1997; Giangreco, Edelman, & Broer, 2001; Hilton & Gerlach, 1997; Jones & Bender, 1993; National Joint Committee on Learning Disabilities, 1999; Pickett, 2000; Pickett & Gerlach, 1997; Wadsworth & Knight, 1996; Wallace, et al., 2001). Regardless of paraprofessionals' backgrounds and roles, training is a critical element in effective employment and retention (Frith & Lindsey, 1982; Pickett, 2000; Pickett, et al., 1993; Riggs & Mueller, 2001; Wallace, et al., 2000). Despite agreement on the need for paraprofessional training, many local and state education agencies do not provide significant preservice or inservice training (Blalock, 1991; Pickett, 2000; Rubin & Long, 1994; Riggs & Mueller, 2001; Wallace, et al., 2000). Since the 1997 Amendments to IDEA, a renewed interest in developing standards and certification has emerged. Several associations [Council for Exceptional Children (CEC), the American Speech, Language and Hearing Association (ASHA), American Physical

Therapy Association (APTA), and the American Occupational Therapy Association (AOTA)] have established knowledge and skill competencies. CEC has set paraprofessional competencies, and some states also have paraprofessional competencies or standards. Mullins, Morris, and Reinoehl (1997) report that six states have procedures for using paraprofessionals.

Currently, ASHA, APTA, and AOTA require community college AA degrees for certified therapy assistants. Nationwide, 249 community colleges offer AA degrees to OT assistants and PT assistants. In 1997, ASHA recognized an AA degree for SLP assistants, and there are already 10 accredited programs, 50 near completion, and others in development. NRCP records indicate that there are 198 community colleges offering either 2-year AA degrees or 1-year certificate programs to paraprofessionals working in inclusive special and general education, bilingual/ESL, Title I, and early childhood programs. However, fewer than half of the states, the District of Columbia, the Territories, The Bureau of Indian Affairs, and the Department of Defense have established standards and/or regulatory procedures for paraprofessional roles and responsibilities, preparation, and supervision (Pickett et al., 2002). Thirteen (13) states have credentialing systems—ranging from multilevel licensure/certification credentials that define roles, training, and career advancement criteria to one-dimensional systems that do not specify role or training requirements; 11 have chosen to establish standards for paraprofessional roles (Pickett et al., 2002).

New legislative requirements will have an impact on certification and licensure across our nation. It is critical that constituents, including federal and state policymakers, SEA and LEA administrators, personnel developers in 2- and 4-year IHEs, researchers, professional organizations, and others align their efforts for an efficient, effective system of preparation.

A SUMMARY OF CURRENT ISSUES

Effectiveness

There has been increasing attention paid to the impact of paraprofessionals on student The highly publicized STAR (Student/Teacher Achievement Ratio) study achievement. concluded that paraprofessionals did not contribute to the students' academic achievement in the classroom. However, Finn (1998) reported that the duties of the paraprofessionals were left to the discretion of a teacher who had received no special instructions. Like many studies, STAR did not isolate and control training and supervision variables. Gerber et al. (2001) used the STAR data to examine the role of paraprofessionals—they use the term teacher aides—and their impact on student achievement, finding consistent achievement advantages for small classes compared to regular-size classes with a paraprofessional. Because paraprofessionals often work with individuals or small groups, the authors state the possibility that paraprofessionals may provide important attention and support to specific students, which could be reflected in their achievement data, but the effect is lost when aggregated with the rest of the class. In addition, many paraprofessionals reported not having job descriptions, orientation, or training. There are many variables involved with the appropriate use and supervision of paraprofessionals, which makes general statements about efficacy difficult.

It is critical to consider studies of paraprofessionals' effectiveness carefully. The questions guiding such studies must be analyzed. Satisfaction studies exist, but there are no well-designed studies examining the relationship between the role of paraprofessionals and student achievement (Jones & Bender, 1993; Rubin & Long, 1994). After reviewing the literature, Giangreco, Edelman, Broer, and Doyle (2001) concluded that little is known about the impact of paraprofessional services on students with disabilities, at least in part because more work is needed on the identification of service-delivery models (e.g., program-based supports and one-on-one support) that meet students' needs. Furthermore, extant research results are often contradictory. For example, in a qualitative study of one-paraprofessional-to-one-child service delivery, Giangreco et al. (1997) found that the paraprofessional's continuous proximity to the child sometimes diminished the benefits of one-to-one attention. The authors suggested that attention be given to the design and development of models of service delivery that do not focus solely on matching a student with a paraprofessional. On the other hand, Werts, Zigmond, and Leeper (2001) found that paraprofessionals' proximity had a positive impact on the academic engagement of primary-aged students in inclusive settings.

Supervision

Associated with issues of paraprofessionals' efficacy and appropriateness of service delivery is the issue of supervision. Wallace et al. (2001) found that paraprofessionals most often reported a difference between the person responsible for hiring and evaluating their performance (an administrator) and the person directing their day-to-day work with students (an educator). Confusion in many schools leads to inappropriate expectations and assignments, lack of communication, and little planning between educators and paraprofessionals. Several studies and opinion pieces have addressed the importance of supervision as early as Esbenson (1966) and Blessing (1967), who agreed that, given appropriate supervision, paraprofessionals can

perform instructional activities. Currently, legislation supports the need for supervision, and now teachers must learn strategies for supervising paraprofessionals beginning in their teacher preparation programs (Drecktrah, 2000; French, 2001; French & Pickett, 1997; Salzberg & Morgan, 1995; Wallace, et al., 2001). In addition, administrators must promote effective instructional supervisory relationships and create infrastructures that reward teams.

Summary

The key issues were summarized in a report to the Office of Special Education Programs (OSEP), the IDEA Partnerships Paraprofessional Initiative (2001). Six overarching themes were identified by a cross-partnership (IDEA Partnerships, including ASPIIRE, FAPE, ILIAD, and PMP) forum—35 representatives of professional associations; higher education; federal, state, and local agencies; special projects; individual professional practitioners; paraprofessionals/assistants; and families. Broad issues associated with the roles, supervision, and preparation of instructional/service teams in relation to the 1997 Amendments to IDEA were identified. Because this paper targets teachers and paraprofessionals, the following concepts are worded specifically for educational settings. However, the work of the Forum participants originally included related service teams as well.

The six issues included: (1) confusion and misunderstanding about roles, responsibilities, and supervision of paraprofessionals by teachers, administrators, and families; (2) lack of clear federal, state, and local policies and standards; (3) need for consensus about who paraprofessionals are and what a paraprofessional does; (4) inadequate training for administrators, teachers, and paraprofessionals about appropriate roles, responsibilities, and supervision; (5) inadequate opportunities for instructional teams to plan, collaborate, and support one another's efforts; and (6) need for systematic infrastructures and administrative support for training, team collaboration/planning, and utilization of appropriate practice. These six broad issues, coupled with the need for identifying the efficacy of the paraprofessional role, are also the key paraprofessional issues supported by the literature.

IMPLICATIONS FOR RESEARCH

The following research will facilitate improvements: (a) efficient and accurate systems to identify information about the paraprofessional work force; (b) the relationship between paraprofessional behaviors and the academic engagement and achievement of students; (c) models of paraprofessional support that demonstrate alignment among standards for roles, preparation, and supervision; (d) factors associated with successful collaboration/coordination among general educators, special educators, and paraprofessionals in the support of students in inclusive educational settings; (e) recruitment/retention strategies that lead to successful paraprofessionals; (f) factors (training, supervision, duties, planning time) associated with the successful use of paraprofessionals; (g) how teachers work with paraprofessionals on administrative, instructional, and noninstructional tasks; (h) infrastructures to support the preparation and ongoing development of paraprofessionals (e.g., preservice and inservice training, career ladders); (i) knowledge/skill competencies and corresponding training approaches; and (i) models for preparing administrators and teachers to supervise and direct the work of paraprofessionals effectively. The importance of the paraprofessional work force, the issues surrounding this group, and the research/development activities needed to develop solutions are best summarized by Daniels and McBride (2001):

In the final analysis, schools cannot adequately function without paraprofessionals, and paraprofessionals cannot adequately function in schools that lack an infrastructure that supports and respects them as viable and contributing members of instructional teams.

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