One of a series of monographs addressing issues concerning the training and use of paraprofessionals working in education programs for the disabled, this report considers the expanding utilization of paraprofessionals in special education and its related services. The first section describes the current state of the art with regard to personnel practices, the changing roles and responsibilities of paraprofessionals, training programs, certification/permit systems, and other factors affecting the employment, training, and on-the-job performance of paraprofessionals. The report's second section presents a series of recommendations for improving the effectiveness of paraprofessionals in special education and its related services. These recommendations are based on a national survey of special education directors (N=52) representing 47 state departments of education, three United States territories, the District of Columbia, and the Bureau of Indian Affairs. Information obtained from these administrators (number of paraprofessionals employed in special education programs, reimbursement policies, certification policies, cooperative state-college-relationships, professional needs, and training networks) resulted in the formation of several conclusions, including the need for systematic inservice training, easier access to postsecondary education, differentiated staffing patterns, and increased cooperation between state and local education agencies. (CB)
PARAPROFESSIONALS IN SPECIAL EDUCATION
THE STATE OF THE ART - 1986
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# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II. Results of the Survey</td>
<td>7</td>
</tr>
<tr>
<td>III. Summary of the Data</td>
<td>13</td>
</tr>
<tr>
<td>IV. Conclusions</td>
<td>14</td>
</tr>
</tbody>
</table>

This paper is one of a series of monographs and reports available from the National Resource Center for Paraprofessionals in Special Education that address issues concerning the training and utilization of paraprofessionals working in public school and other educational programs for persons with disabilities. For more information about these reports and other services available through the Center contact: Anna Lou Pickett, Center for Advanced Study in Education, Graduate School and University Center, City University of New York, 33 West 42nd Street, New York, New York 10036.

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INTRODUCTION

The Passage, by Congress, of PL94-142 and the Rehabilitation Act of 1973, mandates established by state legislatures, and the decisions of various court systems more than a decade ago, created new imperatives requiring expanded and improved services for all people with developmental, physical, learning and other disabilities. These actions have exerted profound pressures on public schools and other local service providers throughout the country. And they have brought about ongoing needs for increased personnel and differentiated staffing patterns that have not been met.

In the latter part of the 1980s a multitude of critical issues regarding the delivery of special education services still confront policy makers and administrators responsible for the education of children and youth with special needs. Newly defined roles and responsibilities for all professional personnel including teachers, rehabilitation specialists, physical, occupational and speech therapists and other support personnel have caused policy makers to seek other human resources. Increasingly they have turned to paraprofessionals as one method to supplement the functions of teachers and other support staff.

This report addresses an important but under-recognized issue - the expanding utilization of paraprofessionals in special education and its related services. While paraprofessionals have become major contributors to the delivery of improved and increased special education programs, opportunities for standardized training and career mobility have not been addressed systematically by most state and local education agencies.

The word paraprofessional has come to mean many things to many people - especially across the broad range of human service delivery systems. For the purposes of this work we are using the definition developed by the National Resource Center for Paraprofessionals in Special Education and Related Services (NRC). It is an employee 1) whose position is either instructional in nature or who delivers other direct and indirect services to students and/or their parents; and 2) who serves in a position for which a teacher or another professional staff member has the ultimate responsibility for the design and implementation of individual educational programs and other services.
The content in this report is divided into two parts. The first section describes the current state of the art with regard to personnel practices, the changing roles and responsibilities of paraprofessionals, training programs, certification/permit systems and several other factors that have affected the employment, training, and on-the-job performance of paraprofessionals. The second section presents a series of recommendations for improving the effectiveness of paraprofessionals in special education and its related services.

Information for this study comes from two primary sources: 1) Analysis of the results of a questionnaire mailed to the state and territorial Directors of Special Education; and 2) A review of the results of various technical assistance and programmatic activities and advocacy efforts carried out by the National Resource Center for Paraprofessionals in Special Education and Related Services.

PARAPROFESSIONALS IN SPECIAL EDUCATION: A HISTORICAL PERSPECTIVE

The initial recognition of the contributions paraprofessionals could make to education began in the late 1950s and 60s when administrators confronted by a shortage of teachers began to look for alternative means of providing services in order to alleviate this emerging personnel gap. One of the earliest well-documented studies of the use of special education paraprofessionals took place almost 30 years ago in a demonstration conducted at Syracuse University (Cruickshank and Haring, 1957). This study took place about the same time that another effort supported by the Ford Foundation, was occurring in Bay City, Michigan. The Bay City project was designed to recruit and train aides to assist teachers in general education. When the public schools first began to employ paraprofessionals, their duties were viewed as being: 1) primarily housekeeping and clerical in nature; 2) to serve as a liaison between the schools and community to bridge a growing lack of confidence between the consumers of educational services and the service providers; 3) to occasionally work with small groups of children; and 4) to provide new career opportunities for minority and other disadvantaged workers (Gartner, 1971).
DUTIES OF PARAPROFESSIONALS: THE PRESENT

Role definitions for professional and paraprofessional personnel are in a state of transition. A Nation Prepared: Teachers for the 21st Century, prepared by the Carnegie Forum on Education and the Economy (1986), is a major effort that looks at the changing and expanding roles of teachers. The taskforce argued that among other roles, teachers should be viewed as managers of multiple human resources including paraprofessionals, parents, volunteers from the business community and other non-academic arenas and college interns.

Indeed, in today's classroom, teachers are supervisors and classroom managers - particularly in the areas of special education and compensatory education programs for disadvantaged children and youth. Their roles and duties are becoming more complex and difficult. And, the term "classroom teacher" no longer adequately defines or embodies the expanding responsibility of teachers in the classroom, (Pickett, 1986.)

Analysis of the daily functions of teachers finds that a major portion of their time is spent on program management and administrative tasks. Teachers are now placed in the role of coordinating and managing information provided by the members of the inter-disciplinary teams responsible for developing individualized education plans (IEPs) for students with special needs. Once the goals and objectives of the IEP have been established, implementation of the plans become the responsibilities of the teachers. As part of their program management duties they: assess the development and performance levels of individual students, design and carry out the programs to fulfill the IEP, assess the impact of the teaching, and change the programs based on student progress (White, et al 1981; Heller, et al, 1982).

In addition to these programmatic duties, their responsibilities now include supervising and coordinating the work of paraprofessionals and other support staff. They must: 1) set goals and plan for other adults in the classroom, 2) schedule and coordinate the activities of professional support and resource personnel, 3) direct and assign tasks to paraprofessionals, 4) use problem solving techniques to improve the collaborative efforts of the team; 5) assess on the job performance of paraprofessionals, and 6) develop techniques and procedures to improve the skills and performance of paraprofessionals (Pickett, 1986.)
Over the last decade, the National Resource Center for Paraprofessionals conducted a series of task analyses, observations, and other activities in a variety of educational program settings, and geographic areas across the country. We have found that, while paraprofessionals still run the audio visual equipment, assist teachers in routine record keeping and monitor playgrounds and lunchrooms, there have been major changes in attitudes among policy makers and educators toward what are appropriate roles for them to assume. Their roles are no longer viewed as being primarily clerical. Instead, they are becoming technicians and specialists who are integral members of the educational team. They participate in all phases of the instructional process and support and enhance the programmatic and administrative functions of teachers.

Of equal importance for policy makers, program planners and trainers/educators are the dramatic changes in the deployment of paraprofessionals in related service areas. For example, they serve on crisis intervention teams to meet the needs of students with emotional and other behavioral disorders. Both rural and urban school systems now rely on speech/communication aides to support the work of speech therapists; and several states are exploring the feasibility of employing Physical and Occupational Therapy Aides to meet the growing demands for these services. They also provide therapeutic and adaptive services in both school and community based programs. And as more states move to provide early-intervention services and pre-school programs for infants and young children with special needs, they are including paraprofessional personnel as members of the team that deliver direct care for the children and training for parents and other family members. Further, they supervise students and other clients in off-campus work assignments and they work as health care and case management assistants in many public school systems.

Before discussing the findings of the survey of state and territorial Directors of Special Education, there are some issues not specifically addressed by the survey that have a direct impact on the employment and training of paraprofessionals that should be presented. Again, these concerns are based on the experiences of the National Resource Center through its work with state and local education agencies (SEAs and LEAs), providers of community based services for infants and young children, and adults with developmental and other disabilities, two and four year institutions of higher education (IHEs), and professional and employee organizations whose members are involved in the delivery of services to people with special needs.
THE ROLE OF INSTITUTIONS OF HIGHER EDUCATION: A NEED FOR COLLABORATIVE EFFORTS

While paraprofessionals have become major contributors to the delivery of special education and rehabilitation services, opportunities for systematic in-service training, career advancement, and access to continuing higher education are not keeping pace and they are not generally prepared for the duties they are expected to assume. With few exceptions training is the responsibility of local education agencies and other community based direct service providers. For the most part the training is informal, unstructured, and based on parochial needs rather than reflecting common skills required by workers across agency and programmatic lines.

In 1976, approximately 75 institutions of higher education, the overwhelming majority of them two year colleges, were providing pre-service training to paraprofessionals working in special education and rehabilitation services. Since that time 50-60 more have been developed. Many of the new programs were developed through funds from the Division of Personnel Preparation Education and Rehabilitation Services (USDE) and not all of them survived when the federal funding ended.

Few SEAs, LEAs, and IHEs have joined forces to furnish training for paraprofessionals that 1) is designed to meet the identified needs of the paraprofessional and allow them to more effectively carry out the duties they are assigned to; and 2) to combine the human, technical, and financial resources of the IHEs, and service providers as one method of providing systematic and cost effective training for paraprofessionals that will lead to opportunities to gain academic credit and access to continuing education.

In the previous section we briefly described the program management and supervisory duties teachers are performing. They are responsible for coordinating, monitoring, and scheduling all support staff who provide instructional and related services to students. And while teachers are increasingly becoming front-line supervisors, they are not prepared during their pre-service education to plan for, direct and monitor, and assess the work of paraprofessionals, or to develop procedures to improve their skills and productivity. A review of federally funded personnel preparation programs and meetings with representatives of teacher education programs, conducted as part of the work of the National Resource Center for another project, revealed that few institutions of higher education have recognized the developing need to prepare teachers to understand the roles of paraprofessionals or to work effectively with them (Pickett, 1986).
THE ROLE OF LOCAL AND STATE EDUCATION AGENCIES

While local school districts have continued to employ paraprofessionals to work in special education in ever increasing numbers and to extend their responsibilities in the instructional process, they have not always established clearly defined job descriptions, evaluation procedures, standards for career advancement that recognize differentiated levels of responsibilities for paraprofessionals, and guidelines for training based on these differences. In addition very few states are providing technical assistance services and resources that will enable LEAs to develop criteria for employment, training, and career mobility that can be applied statewide.

THE ROLE OF PROFESSIONAL AND EMPLOYEE ORGANIZATIONS

Several professional and employee organizations are now addressing issues concerned with the use, training, and credentialing of paraprofessionals. For example, the Teacher Education Division (TED) of the Council for Exceptional Children (CEC) is in the process of establishing a special interest group for trainers and others concerned with improving the performance and career advancement opportunities for paraprofessionals. The American Association of Physical Therapists has developed a suggested curriculum for community colleges to follow in order to prepare physical therapy aides; and, the American Association for Occupational Therapists has developed a category and suggestions for training OT aides. The American Speech, Language and Hearing Association has recommended guidelines for the employment of support personnel. In addition, the Association for the Severely Handicapped (TASH), The American Association for Mental Deficiency (AAMD), and The American Association for the Visually Handicapped regularly stress the need to train paraprofessionals in their professional journals and at annual meetings and conventions.

Further, at its annual convention held in July of 1986, the American Federal of Teachers (AFT) adopted as its official policy a resolution calling for mandatory certification procedures to be developed at the state level incorporating a career ladder system and access to training that removes barriers to establishing and maintaining viable career development plans for paraprofessionals. Although the AFT has long been interested in promoting access to training, improved benefits, and increased salaries, and career development programs for paraprofessionals, this action was a major step forward in their recognition of the evolving roles and duties of paraprofessionals.
The next section in this paper describes the results of the state and territorial Directors of Special Education.

RESULTS OF THE SURVEY OF STATE DIRECTORS

During the winter of 1986, the National Resource Center for Paraprofessionals conducted a survey of special education directors in the 50 states, 5 territories, the District of Columbia, and the Bureau of Indian Affairs. The purpose of the survey was to update information collected previously through similar surveys with regard to the deployment, training, and numbers of paraprofessionals in educational programs for children and youth with disabilities. The data was collected through a mail questionnaire and follow-up phone calls to the directors or other administrative personnel. The questionnaire was designed to ascertain the following information:

- the number of paraprofessionals employed in special education programs;
- the number of states reimbursing local education agencies for the employment of paraprofessionals in special education programs;
- the number of states reimbursing local school districts for training paraprofessionals or providing training directly through a statewide training model;
- the number of states certifying or licensing paraprofessionals in special education;
- the number of states working cooperatively with institutions of higher education to provide academic credits for paraprofessionals through inservice and pre-service training;
- the number of formal statewide training networks;
- the needs and suggestions of educators in the field.
A total of 57 questionnaires were mailed to all state and territorial directors, the District of Columbia and the BIA. Of this total, forty-seven states, the District of Columbia, the Bureau of Indian Affairs and three territories completed the questionnaire or responded to a follow-up telephone call. (The results of this current survey have been compared with the findings of surveys undertaken in 1973 and again in 1979.)

Table 1

<table>
<thead>
<tr>
<th></th>
<th>1973</th>
<th>1979</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>States</td>
<td>48</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Territories</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BIA</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>48</td>
<td>52</td>
</tr>
</tbody>
</table>

The responses from the state directors of special education resulted in the following information as to the increased utilization of paraprofessionals in special education:

- In 1973, prior to the implementation of PL94-142 nationwide, the number of paraprofessionals was approximately 27,000.

- In 1979, the number of paraprofessionals had risen to approximately 80,000, an increase of at least 53,000 in the six year period.
In 1986 the number of paraprofessionals employed nationwide exceeds 150,000*

Table 2

STATE ESTIMATES OF NUMBER OF PARAPROFESSIONALS EMPLOYED IN PUBLIC SCHOOL PROGRAMS

<table>
<thead>
<tr>
<th></th>
<th>1973</th>
<th>1979</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1-50</td>
<td>11</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>50-100</td>
<td>7</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>100-200</td>
<td>8</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>200-300</td>
<td>6</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>300-600</td>
<td>9</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>600-1000</td>
<td>3</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>1000-3000</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>3000-5000</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5000-7000</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>7000-and above</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>No data on the current # of paraprofessionals</td>
<td>3</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

(3 states and 2 territories)

*Note: The number of paraprofessionals reported to be employed in special education programs in the public schools is approximate for three reasons: 1) fourteen of the states that responded to the 1986 survey reported that the data was not available (although some of the respondents did provide an estimated number and those figures were included in the overall total); 2) for the 3 states and 2 territories that did not respond to the 1986 survey, we have included the actual number reported in the 1979 survey; and 3) although we asked for the number of paraprofessionals working in early intervention and pre-school programs for infants and young children with disabilities, Head Start programs, private schools and state training schools most of the divisions of special education do not collect data from these sources with regard to paraprofessionals.
While as late as 1974, only five (5) states employed a thousand or more paraprofessionals and none more than five (5) thousand, by 1982 counting (82) states were employing over a thousand and sixteen states employing more than five thousand. Despite the fact that some states still do not collect information with regard to the number of paraprofessionals employed by local school districts and other service providers and differences in the data collection procedures used by the other states, it is clear that the number of paraprofessionals working in special education programs administered by public schools has increased steadily and dramatically over the last decade. In addition, the 150,000 paraprofessionals reported in this study do not reflect the numbers of others in early intervention/pre-school programs, vocational, educational programs, health services, residential and other community based programs for children and adults with disabilities. An educated guess would bring the number to anywhere 300,000. And on the various service delivery agencies, even if one federal and state requirements for providing trained personnel to infants and pre-school children with special needs and their families the numbers can be expected to be 2.5 times.

**Certification**

In the 1974 survey, nine states reported that they had certification procedures for paraprofessionals working in all areas of public education. The original nine states were California, New Mexico, Ohio, New York, Georgia, Connecticut, Alabama, and Vermont. Only Wisconsin had established criteria for paraprofessionals working in special education. A review of these early certification procedures finds that: 1) none of the systems were mandatory, and 2) that no two states used the same definition or role that constituted a certification system. Therefore, none of the states reported an established certification process, another might call "administrative guidelines for employment," that had been promulgated as part of their state plan. Additionally, there was little agreement about educational requirements for employment, and qualifications ranged from a GED to some college training. None of these procedures were competency based nor did they include opportunities for systematic training and upward mobility in the system if that was the personal goal of the paraprofessional.

By 1982, only three more states had joined the ranks of those early pioneers. They are Kansas, Texas, and Louisiana. The Kansas and Louisiana "permit systems" are designed for special education paraprofessionals only. The Texas system applies to all paraprofessionals. Both the Kansas

13
systems were mandated by legislative action and have been implemented statewide. While the Louisiana system was developed as part of the administrative regulations to carry out legislative guidelines, it is voluntary and only a few parishes are using the process. The three tiered system is competency based and paraprofessionals must be able to demonstrate competence before they move to the next level.

In Texas, suggested competencies for special education paraprofessionals were developed by the San Antonio Community College, for the state division of special education, to supplement the criteria established by the legislature for paraprofessionals in general education. The Kansas State Division of Special Education is currently developing specific competencies for each of the three levels of its "permit." Both Kansas and Louisiana have developed instructional materials and models to facilitate and encourage the development of in-service programs at the local level.

There is another effort concerned with certification that warrant mention. In 1979 the Office of Special Education, U.S. Department of Education funded a 2 year project establishing a taskforce to explore certification/credentialing issues for special education paraprofessionals. Persons serving on the taskforce represented a broad range of agencies and organizations concerned with the use of paraprofessionals in educational programs for the disabled. They included community colleges, four year institutions of higher education, the American Federation of Teachers, the National Education Association, the Council for Exceptional Children, the National Resource Center for Paraprofessionals in Special Education, the National School Boards Association, the National Association of State Directors of Special Education, paraprofessionals and state and local education agencies. The taskforce completed its work in 1981. The results of its efforts are now available through the ERIC system. And, as mentioned previously the AFT has included establishing mandatory certification of paraprofessionals as one way to upgrade educational standards and practices.

**REIMBURSEMENT**

In 1979, twenty states reported that they reimbursed local education agencies for the use of paraprofessionals. This reimbursement was usually in the form of a subsidy of salaries. In 1986, 23 states report that such reimbursement is usually based on percentages of professional salaries, class size and student need.
Twenty states responding to the questionnaire do not directly reimburse local school districts for the use of paraprofessionals. For the most part, these states reimburse school districts based on per pupil costs. The local district then decides how the money will be allocated in order to meet the mandates of PL94-142 and state legislation. Alaska, Hawaii, and the territories, District of Columbia and BIA operate as single school district units, and therefore, determine how flow through and local tax levy funds will be allocated for personnel and programs.

TRAINING

In the 1973 survey and all subsequent surveys, we found that most states do not have a formal statewide model to prepare paraprofessionals to work in special education programs nor do they reimburse LEAs to carry out training. In addition to the programs in Kansas and Louisiana described earlier, Indiana has developed a series of self-instructional modules for teacher-paraprofessional teams and Illinois has produced instructional materials that are available to all school districts who request it.

In 1985, the Florida Legislature established a Teacher Aide Taskforce. The mandate of the Taskforce was to develop a series of recommendations for teacher aide training, certification, roles, and on a comprehensive plan to more fully utilize teacher aides and assistants in the educational process. Their work is completed and is awaiting the approval of the state board of education.

Responses to an open ended question, in the 1986 survey about concerns and issues confronting SEAs and LEAs with regard to training paraprofessionals, found greater recognition of the need to develop opportunities for structured systematic training for paraprofessionals. In addition, several states described tentative efforts to reach out to IHEs and develop collaborative training processes. The states that reported increased interest in either developing statewide training models or providing technical assistance to strengthen the efforts of LEAs include Delaware, Florida, New Jersey, Oklahoma, Missouri, Colorado, Iowa, Nebraska, Hawaii, North Carolina, and Arkansas.
SUMMARY OF DATA

- There are more than 150,000 paraprofessionals working in public school programs for children and youth with disabilities. This represents more than five times the number found in 1973, and an increase of about 50% since 1979. These figures do not include paraprofessionals working in pre-school programs, private schools, or early intervention programs for infants, state training schools or training schools operated by various state agencies serving children and adults with special needs.

- Paraprofessional personnel are working in all programmatic and administrative divisions of public school programs for students with various disabilities including the classroom, crisis intervention teams, case management, physical therapy, speech therapy and occupational therapy, health services, and early intervention and other related services.

- The results of the 1986 survey of state directors of special education indicate an increased awareness of the need to develop standardized and systematic training for paraprofessionals, however, only four states – Kansas, Louisiana, Illinois and Indiana have designed models or materials that are used statewide. Most states, report that the responsibility for training paraprofessionals is left up to LEAs with little fiscal or technical assistance from the state agency.

- In the nation as a whole, there is little collaboration between SEAs, LEAs, other service providers and IHEs to furnish training for paraprofessionals using mechanisms that combine fiscal and human resources.

- Few post secondary institutions of higher education are providing training to teachers and administrators to enable them to work more effectively with paraprofessionals, to supervise them, to assess their on-the-job performance, and to develop strategies to improve the contributions they make to the delivery of educational and related services to students with special needs.
Few states and localities have moved to establish certification/permit systems or other personnel practices that lead to opportunities for career mobility based on identified competencies and a combination of inservice training or continuing education provided through IHEs.

**CONCLUSIONS**

Commitments have been made at federal, state, and local levels to improve the quality and variety of services available to meet the diverse needs of all people with disabilities in public school programs and other community based related service delivery systems. While significant advances have been made in the field, over the last ten years, there are many "second generation" problems including shortages of personnel in all programmatic areas that remain.

To continue to bring about improvement in every facet of the instructional process and other direct services required by students with special needs, all of the "players" must be prepared to assume the roles they are assigned to perform — including paraprofessionals — the fastest growing yet most under-recognized, under-prepared and therefore, under-utilized category of personnel in the service delivery system. The current focus and intense interest from public and private agencies, employee and professional organizations, and consumer advocacy groups on reforming and improving educational practices and procedures makes this an ideal time to look ahead and (re) evaluate both tested and new strategies to improve personnel practices as they relate to the utilization and training of paraprofessionals.

There are several areas of need that SEAs, LEAs, IHEs, and professional organizations need to explore more fully. One of the most important is the need to develop incentives for paraprofessionals in the form of career ladders (promotion and upward mobility) as a means of 1) easing continuing shortages in the ranks of teachers, therapists and other professionals that exist in so many localities; and 2) recruiting and maintaining a cadre of skilled and committed direct service staff who understand the students they serve and the communities where they live. These procedures should establish criteria for the employment of paraprofessionals, set standards for their promotion and career advancement, develop educational standards based on identified competencies, and develop structured training programs. These systems will be more effective if they include some or all of the following conditions and techniques:
They should provide opportunities for systematic in-service training. This training should be based on task/job analyses of the work paraprofessionals actually perform in today's classroom. The training should include both formal classroom sessions as well as supervised on-the-job training.

They should provide easier access to post-secondary education, for paraprofessionals who want to become teachers, that recognizes the experience and skills the paraprofessional has acquired on the job.

They should be tied to the efforts that are presently underway to enhance the performance of teachers and to increase opportunities for career advancement and mobility for them. The design and implementation of career ladders should take into account and build on the changes in the duties of teachers and paraprofessional alike.

They should incorporate differentiated staffing patterns that allow for multiple points of entry for both paraprofessionals and the professional colleagues. And they should include specific standards for upward mobility through separate and discreet levels of employment, thereby allowing people to enter the system where they want to and to end their career advancement based on personal goals and job preference.

These or other alternatives for training and career mobility for paraprofessionals should be developed cooperatively by state and local education agencies, two and four year colleges, and professional and employee organizations. These efforts should enable the agencies to combine human and financial resources, and therefore, lead to a statewide comprehensive plan of training and career development that will improve the contributions and productivity of paraprofessionals.
The lack of access to systematic training and opportunities for career mobility are not the only problems that influence the quality of on-the-job performance of paraprofessionals. Teachers and other professional personnel are at best unevenly aware of the changing and expanding duties of paraprofessionals. They are not trained to supervise paraprofessionals and other support personnel or to assess the potential for even greater utilization that will free professional staff members to provide more individualized instruction for students. Policy makers in state and local education agencies and administrators in teacher education programs need to institute joint planning efforts to develop both pre and inservice training to prepare teachers to assume these new roles.

In addition to the efforts that are underway to improve and reform educational practices and to re-enforce the concept of teaching as a profession, there is another initiative that is gaining momentum that will almost certainly have a direct impact on the roles of paraprofessionals. It is the movement to unite general and special education. All indications are that paraprofessionals will be called on to serve as liaisons between special and general education to facilitate (re) entry of students with special needs into general education programs.

The increased interest displayed by various professional organizations as well as the continuing shortage of personnel to provide related services e.g. PT, OT and speech therapy is drawing attention to the need for developing competencies necessary for paraprofessionals who are beginning to work in these support services.

The Future

Looking beyond the current state of the art, there is a growing need for policy makers and educators to begin to assess the skills paraprofessionals or the "new technicians" will require as a result of the introduction of new methods and instructional strategies to meet the educational needs of children and youth with special needs. While the changes described throughout this report have been evolutionary and based on fairly standard practices, the changes that will occur between now and the turn of the century will be more radical as the use of computers, telecommunications, video and other technologies becomes common place in the classroom. These changes will in turn have an impact on the content, form, and format of training programs and personnel practices that neither institutions of higher education nor state and local education agencies have started to address.
REFERENCES


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