Training Educators for the Handicapped: A Need to Redirect Federal Programs.

Reviewed are the programs administered by the Office of Education, Department of Health, Education, and Welfare to train educators of the handicapped with emphasis on the increasing need for training of regular classroom teachers to deal with handicapped students and the need for vocational education for the handicapped. Outlined are needs for improved evaluation and dissemination of information resulting from special developmental projects. Included are recommendations such as the following: provide a major emphasis on programs for training regular classroom teachers to effectively deal with the handicapped; discourage the use of Bureau of Education for the Handicapped funds for paying stipends for full-time students; emphasize the need for applying individualized instruction techniques to the handicapped by supporting projects designed to extend the regular classroom teacher's ability to reach individual students; and develop and implement a plan to provide vocational educators with the skills and abilities needed to effectively deal with the handicapped in the regular classroom. Included are such items as a chart indicating demand for special education teachers for school years 1975 - 76 and 1976 - 77 and the perceived effect of withdrawal of federal funding from collegiate special education programs. (IM)
REPORT TO THE CONGRESS
BY THE COMPTROLLER GENERAL OF THE UNITED STATES

Training Educators for the Handicapped:
A Need to Redirect Federal Programs

Office of Education
Department of Health, Education and Welfare
Training Educators For The Handicapped: A Need To Redirect Federal Programs

Office of Education
Department of Health, Education, and Welfare

More and more handicapped students throughout the country are now being integrated into regular classrooms, and educators view specialized training of regular classroom teachers as essential to effective education of the handicapped.

The capacity of colleges to prepare specialists in the education of the handicapped has increased to the point that the anticipated demand for these specialists has been fulfilled.

The Department of Health, Education, and Welfare should now move to insure that regular classroom teachers receive more training in the special skills required for teaching the handicapped.
To the President of the Senate and the Speaker of the House of Representatives

This report discusses the program to train educators of the handicapped and suggests that more emphasis be placed on training the Nation's regular classroom teachers and vocational educators to effectively deal with the handicapped. The program is administered by the Office of Education, Department of Health, Education, and Welfare.

More and more handicapped students are being integrated into regular classrooms, and educators believe that special training of regular classroom teachers is essential if the handicapped are to receive an effective education. With this in mind, we reviewed the Federal effort directed toward these special needs of the classroom teacher.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget, and to the Secretary of Health, Education, and Welfare.

Comptroller General of the United States
# Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIGEST</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Federal involvement in training teachers of the handicapped</td>
<td>2</td>
</tr>
<tr>
<td>Who teaches the handicapped?</td>
<td>3</td>
</tr>
<tr>
<td>Increase of programs for preparing special education teachers</td>
<td>3</td>
</tr>
<tr>
<td>Scope of review</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>NEED TO REDIRECT FEDERAL PROGRAMS FOR PREPARING TEACHERS OF THE HANDICAPPED</td>
<td>5</td>
</tr>
<tr>
<td>Why are handicapped children in regular school classrooms?</td>
<td>6</td>
</tr>
<tr>
<td>Regular classroom teachers need more training to deal with handicapped children</td>
<td>8</td>
</tr>
<tr>
<td>Teachers need more assistance</td>
<td>12</td>
</tr>
<tr>
<td>Funding for teacher-preparation programs needs redirection</td>
<td>13</td>
</tr>
<tr>
<td>Agency actions</td>
<td>18</td>
</tr>
<tr>
<td>Conclusions</td>
<td>20</td>
</tr>
<tr>
<td>Recommendations to the Secretary of HEW</td>
<td>21</td>
</tr>
<tr>
<td>Agency comments and our evaluation</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>INSTRUCTION OF VOCATIONAL EDUCATORS NEEDED TO EXPAND CAREER OPPORTUNITIES FOR THE HANDICAPPED</td>
<td>28</td>
</tr>
<tr>
<td>The handicapped need vocational education</td>
<td>28</td>
</tr>
<tr>
<td>Training needed for vocational education teachers</td>
<td>31</td>
</tr>
<tr>
<td>Directing efforts to training vocational educators</td>
<td>34</td>
</tr>
<tr>
<td>Conclusions</td>
<td>35</td>
</tr>
<tr>
<td>Recommendation to the Secretary of HEW</td>
<td>36</td>
</tr>
<tr>
<td>Agency comments</td>
<td>36</td>
</tr>
</tbody>
</table>
### CHAPTER

4  IMPROVED EVALUATION AND DISSEMINATION NEEDED FOR SPECIAL DEVELOPMENTAL PROJECTS

- Improvements needed in project-monitoring system 37
- Final project reports not evaluated 37
- Need to disseminate project results 39
- Agency actions 40
- Conclusions 41

### APPENDIX

I  Background of sample 42

- Results of questionnaire

II  Demand for special education teachers for school years 1975-76 and 1976-77 44

III  Trends in use of special education teachers 45

IV  Impact of greater use of resource rooms in special education programs 46

V  Comparison of districts with high degree and those with low degree of regular teacher involvement with the handicapped 47

VI  Desirability of three different methods of inservice instruction in special education for regular classroom teachers 48

VII  Potential barriers to increased use of paraprofessionals in special education 49

VIII  Planned expansions of collegiate special education programs 50

IX  Perceived effect of withdrawal of Federal funding 51

X  Principal reasons why college students enroll in programs preparing special education teachers 52
APPENDIX

XI  Letter dated June 14, 1976, from the Assistant Secretary, Comptroller, HEW, to GAO  53

XII Principal HEW officials responsible for activities discussed in this report  58

ABBREVIATIONS

BEH  Bureau of Education for the Handicapped

GAO  General Accounting Office

HEW  Department of Health, Education, and Welfare

OE  Office of Education
The Department of Health, Education, and Welfare (HEW) needs to improve its programs which assist in preparing teachers for the handicapped.

--The majority of handicapped students spend most of their schoolday in regular classrooms, yet regular classroom teachers generally have not received training in the skills needed to effectively teach them. (See p. 5.)

--Handicapped students vitally need vocational instruction, yet they are intentionally excluded from the schools' vocational training programs by teachers untrained in methods for teaching the handicapped. (See p. 28.)

Although more handicapped students are being integrated into regular classrooms and educators believe training regular classroom teachers is essential to the effective education of the handicapped, HEW has done relatively little to encourage this special training. HEW's programs for preparing teachers for the handicapped have mainly involved (1) stimulating growth in the capacity of colleges to prepare specialists for educating the handicapped and (2) financially supporting college students entering the field of special education. (See p. 5.)

Since the Federal programs of this type began, the capacity of colleges to prepare specialists for educating the handicapped has greatly increased, and, according to school district special education administrators, is now adequate to fulfill the anticipated demand. (See p. 15.)
To maximize their chances for self-sufficiency, the handicapped need the wide range of vocational offerings available only in the school system's regular vocational programs. Rather than improving the capability of regular vocational education programs to accept the handicapped, HEW-funded programs mainly support projects that segregate handicapped students and offer them only a limited choice of vocational opportunities. (See p. 28.)

The Bureau of Education for the Handicapped under HEW has not fully benefited from its special development projects because it did not have an appropriate system for evaluating or for disseminating the project results. These projects are intended to develop more effective and more efficient ways of training teachers for the handicapped than traditional methods offer. (See p. 37.)

However, if successfully implemented, action taken by the Bureau of Education for the Handicapped since GAO's fieldwork was completed should greatly improve the special project program. (See p. 40.)

To increase the impact of HEW's teacher-preparation programs in areas of major need, the Secretary of HEW should direct the Office of Education to:

--Provide a major emphasis on programs for training the Nation's regular classroom teachers to effectively deal with the handicapped, in cooperation with State and local education agencies and institutions of higher education. (See p. 21.)

--Discourage the use of Bureau of Education for the Handicapped funds for paying stipends for full-time students, except where such stipends are deemed essential and other sources of student assistance are not available. (See p. 21.)

--Emphasize the need for applying individualized instruction techniques to the handicapped by supporting projects--such as those for preparing and using paraprofessionals--designed to extend the regular classroom teacher's ability to reach individual students. (See p. 21.)
--Develop and implement a plan to provide vocational educators with the skills and abilities needed to effectively deal with the handicapped in the regular classroom. (See p. 36.)

Although HEW agreed with GAO's recommendation to provide a major emphasis on those programs for the training of regular classroom teachers, GAO believes that the actions taken and planned will do little to bring skills instruction to the Nation's 1.9 million regular classroom teachers. HEW's planned actions on the other recommendations are more responsive.
CHAPTER 1
INTRODUCTION

An estimated 7 million 1/ children in the United States have mental, physical, emotional, or learning handicaps and require special educational services to become self-sufficient and to reduce their dependency. According to State officials, about half of these children (3.5 million) are enrolled in special education programs in public schools.

The Congress has recognized the importance of providing the handicapped with education programs appropriate to their needs which includes preparing professional educators to teach them. The following legislation provides Federal assistance for education programs (1) for the handicapped and/or (2) for preparing educators to teach the handicapped:

--Education of the Handicapped Act (20 U.S.C. 1401 et seq.).


--Vocational Education Amendments of 1968 (20 U.S.C. 1241 et seq.).

The Department of Health, Education, and Welfare (HEW) administers most Federal programs for educating the handicapped. We commented in a previous report 2/ on the unavailability and inadequacy of such programs. This report deals with one of the causes of the problem—namely, the lack of adequate training for teachers who must educate the handicapped.

1/ About 6 million from ages 5-19 and 1 million from ages 0-4, according to the Office of Education, Department of Health, Education, and Welfare.

FEDERAL INVOLVEMENT IN TRAINING
TEACHERS OF THE HANDICAPPED

The Office of Education (OE) administers Federal education, teacher training, and research programs for handicapped children authorized by the Elementary and Secondary Education Amendments of 1966, followed by the Education of the Handicapped Act enacted in 1966. Part D of the act authorizes the Commissioner of Education to help teacher-training institutions and States train teachers of handicapped children. OE's Bureau of Education for the Handicapped (BEH) received appropriations totaling about $285 million for this purpose for fiscal years 1967-75.

In recent years most of the Bureau's training funds, as shown in the following table, have been used for program assistance grants to teacher-training institutions that prepare special education teachers. Grants are also made to State education agencies for continuing education of special education teachers and to institutions of higher learning for special projects to develop new models for training educators. Since fiscal year 1974 BEH has allocated a small portion of its funds for projects to train paraprofessionals and for inservice training of regular classroom teachers.

**BEH-Funded Teacher Training Activities**
**Fiscal Years 1972-75 (note a)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program assistance grants to teacher-training institutions</td>
<td>$93</td>
<td>64</td>
</tr>
<tr>
<td>State education agency grants</td>
<td>24</td>
<td>17</td>
</tr>
<tr>
<td>Special developmental project grants</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>Other grants</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$145</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

a/ Categorical breakdown of fund allocations before fiscal year 1972 was not available.

In addition to the above, some programs for preparing vocational educators are administered by OE's Bureau of Occupational and Adult Education.
WHO TEACHES THE HANDICAPPED?

Many people possessing a wide range of teacher skills provide educational services to handicapped children, including:

--Special education teachers who, because of their academic training, are specialists in teaching handicapped children and provide educational services to handicapped children in special classes.

--Regular classroom teachers who, in the course of daily teaching, encounter handicapped children in the regular classroom.

--Other professionals, including speech therapists, occupational therapists, psychologists, and others who provide supporting services.

--Paraprofessionals who help teachers provide individualized instruction to handicapped children in both special and regular classes.

INCREASE OF PROGRAMS FOR PREPARING SPECIAL EDUCATION TEACHERS

The Secretary of HEW defines the Federal role in the education of the handicapped as catalytic; i.e., funding new programs to stimulate State and local support for special education. As part of this effort, BEH has provided funding assistance to many collegiate programs which train teachers of the handicapped. According to OE officials, the number of these teacher-preparation programs has grown from relatively few to several hundred since Federal support began. In addition, colleges and universities plan to expand and diversify most existing special education programs.

SCOPE OF REVIEW

Our review included examining the following aspects of special education:

--The capacity of special education teacher-training programs nationwide.

--The public school demand for special education teachers.

--The use of special educators within school districts.
--The relationship between the current utilization of special education teachers and the utilization of classroom teachers, paraprofessionals, and vocational educators.

--The programs for developing new methods of training teachers of the handicapped.

Using questionnaires, we collected data from each State department of education, a sample of 757 public school districts throughout the Nation, and a sample of 155 colleges and universities having special education teacher preparation programs. Uniformly high rates of return and a lack of any discernible nonresponse bias in the randomly selected samples of school districts and colleges and universities reinforce the statistical validity of the projections and conclusions that are based on the questionnaire responses. (See app. I for a description of the sample selection and information on response rates.)

In addition to gathering information by questionnaire, we also:

--Interviewed HEW officials and reviewed agency records and pertinent legislation.

--Examined the results of several special studies about special education manpower.

--Visited collegiate educators, advocates of the handicapped, school district administrators, State directors of special education programs, and special and regular educators to obtain their views.

--Consulted with experts in the field of special education.
CHAPTER 2

NEED TO REDIRECT FEDERAL PROGRAMS FOR
PREPARING TEACHERS OF THE HANDICAPPED

Although the supply of special educators has been greatly increased to meet the Nation's demand, major tasks remain to be accomplished before the handicapped can be assured of appropriate education programs. Perhaps the most significant task is assuring that the Nation's 1.9 million public school teachers are adequately prepared to effectively deal with handicapped children in their charge.

The majority of handicapped schoolchildren spend all or most of their schoolday in regular classrooms under the supervision of regular classroom teachers. The successful advancement of handicapped children depends heavily upon the regular classroom teacher's ability to (1) recognize their learning deficiencies, (2) determine appropriate methods for instructing them, and (3) find the time and resources to put the planned methods into practice.

Since the Bureau of Education for the Handicapped was created in 1967, its teacher-preparation activities have centered mainly on expanding the capacity of colleges and universities to prepare new special educators. Our review showed that three factors now make it appropriate to redirect the main focus of teacher-preparation efforts toward improving the capability of the Nation's regular classroom teachers to effectively deal with handicapped students:

1. The capacity of the Nation's colleges and universities is now adequate to meet the demand for special education teachers.

2. The trend toward placing the handicapped in the regular classroom is widespread.

3. Most Federal assistance to special education training for regular classroom teachers was discontinued when OE's Bureau of Educational Personnel Development 1/ was dissolved in fiscal year 1973.

1/ In fiscal year 1974, the National Center for the Improvement of Educational Systems received the remaining projects of the Bureau of Educational Personnel Development and funded some additional projects which have since been transferred to the Bureau of Occupational and Adult Education and then to BEH. The last of these projects will expire at the end of fiscal year 1976.
WHY ARE HANDICAPPED CHILDREN IN REGULAR SCHOOL CLASSROOMS?

The concept of "mainstreaming" handicapped children is receiving increasingly greater application. Under this concept, handicapped students are integrated into the regular classroom but may receive reinforcement from special educators in special learning centers termed "resource rooms" or from itinerant special educators who visit more than one school. Conversely, nonintegrated handicapped students are isolated from ordinary students and receive all or most of their schooling from special educators in "self-contained" classrooms. This report does not appraise the merits of mainstreaming, but it points out that it is becoming more widespread and emphasizes that adequate preparations must be made to successfully implement it.

A number of factors have increased application of the mainstreaming concept. These factors include research demonstrating the advantages of mainstreaming, court decisions requiring that all handicapped children be served, and State and Federal laws encouraging the education of handicapped children with regular classroom students.

A 1973 study funded by HEW reported that a major goal in special education is mainstreaming handicapped children. The study pointed out that segregating the handicapped is not beneficial because it limits the scope of educational opportunities available to them and stimulates negative attitudes in them as well as in teachers and in others coming into contact with them.

In ruling on the handicapped's rights to equal educational opportunities, court decisions of the 1970s leaned away from favoring secluded restrictive environments and toward favoring less restrictive mainstream facilities. The Education Commission of the States reported in 1974 that at least 17 States had education legislation containing mainstreaming provisions. The Congress also has emphasized the desirability of mainstreaming handicapped children in education programs. The Education Amendments of 1974 (Public Law 93-380) stipulate that handicapped children are to be educated with nonhandicapped children except when the nature and severity of the handicap precludes satisfactory education in regular classes. (See photographs on next page.)
PUBLIC SCHOOL SYSTEMS ARE ASSUMING
MOST OF THE HE-

BLIND AND HEARING—IMPAI-
SOUND ON THE WAY TO LE-
(COURTESY SEATTLE PUBLIC SCHOOLS)

EDUCATING THE HANDICAPPED
(GAO PHOTO)
RY FOR EDUCATING

DISCOVERS
ATIONS.

NTENSIVE EFFORT.
Statistical data we gathered tends to support the observation by educators that the trend toward mainstreaming is increasing. According to this data, school districts planned to hire generalists and specialists in learning during school years 1975-76 and 1976-77 that have specialties most adaptable to the mainstream concept. (See app. II.) Also, most of the teachers that school districts planned to hire in those school years were either resource room or itinerant teachers, whereas in school year 1974-75 the majority (51 percent) of special educators were used in self-contained classrooms. (See app. III.)

Local school district responses to our questionnaire indicated a significant relationship between the direction of the schools' handicapped programs and the numbers of handicapped children they served. For example, districts making proportionately greater use of resource rooms provided special education services to a larger proportion of students. (See app. IV.) Also, schools reporting greater contact between regular teachers and handicapped children (1) served a greater proportion of handicapped students, (2) had a greater proportion of their special education staff in resource rooms, (3) had a smaller proportion of their special education staff in self-contained classrooms and (4) had a greater ratio of handicapped served to special education staff. (See app. V.)

REGULAR CLASSROOM TEACHERS NEED MORE TRAINING TO DEAL WITH HANDICAPPED CHILDREN

For handicapped children to benefit from placement in regular classrooms, regular educators must understand their needs and must know how to apply instructional procedures to effectively deal with such needs. The National Advisory Committee on the Handicapped has said in its annual reports that (1) handicapped children are the responsibility not only of special educators but also of general educators, (2) the general educators' lack of knowledge about the potential of handicapped children compounds the problems of assisting them, and (3) the education system fails to deliver to regular school teachers and administrators much information about educating the handicapped. The Committee also said it is important that all education personnel learn more about methods for teaching the handicapped and therefore recommended that all teacher preparation include instruction in such methods.
Most public school teachers have not had training in special education, even though most handicapped children receive their education in regular classrooms. Special educators say the need to provide special education skills to the Nation's regular classroom teachers is critical. In response to our questionnaire, school administrators volunteered the following comments:

-- Training regular staff in special education is vital. With the focus on mainstreaming handicapped children into regular classes, teachers must be aware of their needs, concerns, and problems.

-- Regular classroom teachers must be trained to recognize and work with handicapped students.

-- Inservice training for regular classroom teachers must be given a high priority. Otherwise, the concept of quality mainstreaming special education programs will remain a myth.

-- Special education should be of concern to every teacher. A good inservice program to help teachers recognize a student with any type of handicap is a necessity.

-- This district desperately needs both inservice training to fully integrate handicapped children and funds to support this training.

-- Elementary and secondary educators and education administrators need special education courses. The goal of full educational opportunity for the handicapped will not be achieved until educators and administrators are trained to meet the needs of those handicapped children who spend most of their schoolday in the regular classroom.

-- Many small school districts have no real special education program. Retarded or slow-learning children remain in the classroom, receiving little or no special attention. Because of the small number of these students and their wide age range, no special education teachers are hired.

The responses of State, local, and university special education administrators to our questionnaire showed that nearly all of them supported inservice and preservice training of regular classroom teachers in special skills for
teaching the handicapped. During our visits to local school districts, special education directors and regular classroom teachers confirmed that the teachers generally did not have sufficient special education training.

Various HEW-funded studies have also reported the need for providing special education skills to regular classroom teachers. For example, a 1973 HEW-funded study of programs for educating the handicapped reported that, even with itinerant and resource special education teacher programs, most direct contacts that the handicapped have are with regular classroom teachers. The study pointed out that increased emphasis on diagnostic-prescriptive teaching and integrated programing requires additional training for regular classroom teachers.

Educators report that educating children with learning handicaps involves:

1. Identifying the learning deficiencies.
2. Developing plans for overcoming the deficiencies.
3. Implementing the plans.
4. Assessing results.

Training is needed to enable teachers to (1) recognize, diagnose, and assess the learning problems of handicapped children, (2) prescribe and administer corrective curricula, and (3) assess program results.

ways to provide needed training to regular classroom teachers

Responses to our questionnaire showed some of the methods that educators believe should be used to provide the needed training. We asked State, local, and university administrators to rate the desirability of each of three common ways inservice instruction is provided to regular classroom teachers:

1. Onsite instruction by specialists under contract to the school district.
2. Onsite instruction by district special education staff.
3. Stipends for short-term campus study, such as summer school.
Although all three settings were rated as desirable by most of the State, local, and university administrators, their setting preferences differed. Both school district and State administrators rated onsite instruction by contracted specialists as the most desirable setting and stipends for short-term campus study as the least desirable. University program administrators rated campus study higher than onsite instruction by contracted specialists and rated onsite instruction by district staff as the least desirable. (See app. VI.)

The 1973 HEW-funded study reported that most State education personnel considered inservice training the most efficient method of providing regular classroom teachers with the needed training. Nearly 60 percent of the local school district special education administrators that responded to our questionnaire volunteered suggestions on how regular classroom teachers should receive inservice training.

Common suggestions were that inservice training should:

--Be conducted in the school district, onsite, and under local control.

--Be conducted by highly competent teaching specialists.

--Be conducted during the school day, with release time for participants.

--Offer college or district inservice credit.

--Be practical and specific.

--Include both observing special educators while working with the handicapped.

--Include practical experience with the handicapped.

--Include followup to assist participants in their regular classes.

Some educators suggested the instruction process be more uniquely tailored, as described below:

--Regular teachers could be cycled periodically into special education classes as part of their regular duties.

--Self-study and audiovisual aids could be combined with periodic inservice presentations as part of an ongoing program.
TEACHERS NEED MORE ASSISTANCE

In addition to requiring competent trained teachers, educating handicapped children through individualized instruction requires a great deal of time. A 1974 study, jointly funded by several HEW agencies, reported that the lack of personnel to provide handicapped children the degree of individual attention needed was one factor excluding the children from successfully progressing. The study pointed out that (1) working with handicapped children is a labor intensive effort and (2) there is no substitute for attentive, caring persons to instruct, encourage, and discipline.

Mainstreaming handicapped students, or having them spend most of their day in the regular classroom, raises the question of how the busy classroom teacher will find time to meet the educational needs of the handicapped. HEW-funded studies have suggested that the effectiveness of trained professional personnel could be multiplied by having them work with less extensively trained personnel. One study, for example, reported that the use of paraprofessionals released teachers to spend more time with individual students and to prepare and improve instruction.

Responses of State and local education agencies to our questionnaire indicated that paraprofessionals are being used successfully to serve handicapped children in classrooms throughout the Nation. Most of the paraprofessionals' time was reported to be spent assisting in providing educational instruction, as indicated in the following chart.

PROPORTIONATE USE OF PARAPROFESSIONALS' TIME IN SERVING HANDICAPPED CHILDREN

- Assisting in educational instruction: 50%
- Self-help services (scooping, feeding, etc.): 24%
- Clerical/administrative: 16%
- All other: 10%
Local education agencies reported a high rate of success in using paraprofessionals to serve the handicapped in regular classrooms, resource rooms, and self-contained classrooms.

Although paraprofessionals are successful in working with the handicapped and in helping to make busy classroom teachers more effective, relatively few paraprofessionals are available to the regular teacher. On the basis of school district responses to our questionnaire, we estimate that only 48,000 paraprofessionals are used in the public schools, as compared with 1.9 million regular classroom teachers. State and local education administrators reported the greatest barriers to increasing the number of paraprofessionals in special education programs were the lack of (1) funds for hiring paraprofessionals, (2) trained paraprofessionals, and (3) programs for training paraprofessionals. (See app. VII.)

A 1974 OE-funded study of paraprofessionals in programs for handicapped children reported that representatives of professional organizations, school administrators, special education teachers, and paraprofessionals themselves also saw the need for training paraprofessionals.

Some school district officials told us they were successfully using high school students as teacher aides to work with handicapped children at a minimal cost. (See photographs on next page.) These aides worked under the direct supervision of professional educators and were trained by the school district's special education staff. The aides received class credit for their work. School officials were doubly pleased with this program because they believed it gave the aides satisfying and rewarding experiences at the same time it benefited the handicapped children.

FUNDING FOR TEACHER-PREPARATION PROGRAMS NEEDS REDIRECTION

The difficulty of training regular teachers in special education skills is compounded by the massive proportions of the task. The Nation's public schools employ about 1.9 million regular classroom teachers, most of whom have handicapped children in their classrooms. The critical need for training and the massive proportions of the task require (1) coordination among those agencies and institutions responsible for providing the training and (2) appropriate levels of funding support.
Until 1973 two OE Bureaus had primary responsibility for Federal programs to help prepare teachers for the handicapped. The Bureau of Education for the Handicapped assisted programs for preparing specialists in educating the handicapped and the Bureau of Educational Personnel Development fostered programs for instructing regular school teachers and paraprofessionals in dealing with the handicapped. However, the latter Bureau was dissolved in 1973, leaving only BEH to provide Federal assistance for special education personnel preparation programs. As stated earlier, these BEH programs primarily prepare specialists for educating the handicapped. Only a small portion of the Bureau's effort is directed to training regular classroom teachers in special education skills.

Under the Education of the Handicapped Act and title I of the Elementary and Secondary Education Act of 1965, as amended (20 U.S.C. 241a et seq.), OE has several ways of making funds available for inservice teacher training programs. For example, under the Education of the Handicapped Act, one logical funds source is that directed to program assistance grants by BEH. These funds are authorized to train teachers of handicapped children and can be used to train regular educators for this purpose. BEH awards program assistance grants to institutions of higher education to help cover the cost of training teachers and to pay stipends for student support. In fiscal year 1975 such grants amounted to about $22 million.

Questionnaire responses showed that the current number of new special education graduates exceeds the hiring capacity of school systems. Our projections indicate that the Nation's major special education programs prepared over 30,000 new special education teachers during academic year 1973-74, whereas school district and State administrators anticipate an annual demand for 20,000 or fewer such teachers. Nevertheless, the Bureau continues to direct most of its teacher resources to producing new graduates.

On the basis of expected ratios of numbers of handicapped children per teacher, BEH currently estimates that a total of about 260,000 additional special education teachers will be needed to provide quality education for all handicapped children. However, the large contrast between the Bureau's estimate and the number of special educators that schools are able to hire indicates that alternative staffing patterns should be considered. This problem was recognized as long ago as 1970 by the former Associate Commissioner for Education of the Handicapped. In testimony before the House Subcommittee on Appropriations, the
Associate Commissioner said more efficient ways were needed to use the present trained personnel more effectively. He said it was unlikely that the schools would employ 250,000 more special education teachers.

A 1973 OE-funded study also questioned the BEH policy of stressing, as its one major goal, the increase of the size of the teacher pool. The report said that, in effect, the ability or the willingness of school districts to hire new graduates constitutes demand, and that the point where production of such graduates equals demand may have been reached, or soon will be. The study showed that the primary reason special education graduates left the field, besides becoming pregnant or returning to children at home, was the unavailability of jobs. Many school officials said there was no shortage of applicants for special education positions, and some said the number of such positions was being reduced because of budgetary restraints.

The decision of schools to hire more special education teachers is also influenced by the current nationwide surplus of schoolteachers. Some school officials said they preferred to train experienced classroom teachers for special education positions rather than to hire new special education teachers. Some educators are predicting a continuing teacher surplus throughout the 1970s, with the supply of new teachers exceeding the demand by 200 percent or more.

Responses of college and university administrators to our questionnaire indicated that the schools plan to expand and diversify most of their existing special education programs. (See app. VIII for a description of the type of expansion.) They also indicated that withdrawal of BEH program assistance grants would reduce the schools' capacity to graduate special educators by about 7,600 annually. (See app. IX.)

Shifting emphasis from the production of new college graduates to inservice instruction of teachers does not necessarily mean shifting funds away from institutions of higher education because the institutions could be asked to provide the instruction. Some colleges already are actively instructing regular classroom teachers in special education. For example, in addition to campus programs for undergraduate, graduate, and postgraduate students, one college we visited in Washington is instructing regular teachers and teacher aides within school districts—some located over 100 miles from the college campus. Arrangements
for special courses are made between the college and the school districts and participating school teachers can receive college course credit. Recognizing the priority needs of regular teachers, a university in Minnesota discontinued its on-campus special education program in favor of an inservice program for regular teachers.

**Questionable need for student assistance**

Directing part of BEH program assistance grant funds toward student-support stipends is also questionable. The Bureau reported that its program assistance grants would provide financial support to about 8,000 students in fiscal year 1976. The estimated cost of the stipends in fiscal year 1975 was about $9 million.

A 1973 OE-funded study reported that, despite the wide availability of financial support, it did not appear that teachers were motivated by such support to enter the special education field. Rather, the commitment to enter special education arose mainly from personal factors, such as exposure to special education programs. The study concluded that exposure to special education was a far more powerful factor in students' decisions to enter the field than were financial support or other factors.

Responses of college and university administrators to our questionnaire disclosed similar views on the principal reasons students enroll in the special education field. The principal reasons listed by most of the administrators were:

1. Desire to work with the handicapped (79 percent).
2. High probability of employment (78 percent).
3. Previous experience with the handicapped (52 percent).

Availability of financial aid was listed as a reason by only 8 percent of the administrators. (See app. X.)

Responses concerning students enrolling in postgraduate study disclosed somewhat different reasons, although the same three principal reasons were cited most frequently. High probability of employment was the reason most often mentioned (63 percent), followed by desire to work with the handicapped (56 percent), previous experience with the handicapped (53 percent), and previous commitment to the field (44 percent). Availability of financial aid was mentioned more frequently
as a reason for postgraduate students (31 percent) than for undergraduates.

**Alternative funding sources**

Because of the size of the task of instructing 1.9 million regular classroom teachers in how to deal effectively with handicapped children, OE should consider funding sources beyond the limited teacher-training funds available under the Education of the Handicapped Act. One such source could be the program of aid for educationally deprived children authorized by title I of the Elementary and Secondary Education Act of 1965, as amended--one of OE's largest programs. Handicapped or other children with learning problems are known to exist in large numbers in low-income areas. More importantly, those skills needed for effectively dealing with the handicapped benefit other students in the classroom as well.

A committee of special education administrators reported to the Council of Great City Schools 1/ in 1972 that special education programs not only benefit the handicapped but also improve general education programs. The committee reported that the mildly handicapped have instructional problems that are not distinctly different from those of normal children, and it is difficult or impossible to identify a learning principle or a teaching guideline that applies only to these handicapped children.

A 1973 OE-funded study of problem areas in student learning and behavior pointed out that between 20 and 30 percent of pupils in the early school grades studied were reported to have learning problems. According to BEH, from 25 to 40 percent of all children display some variation in learning or behavior that requires specially designed education programs. In our opinion, providing special education skills to the regular classroom teacher can help meet these special needs.

**AGENCY ACTIONS**

BEH officials recognize that it is absolutely vital to the successful education of the handicapped in the

---

1/ The Council of Great City Schools is an association of 23 of the largest school districts in the Nation.
regular classroom that regular classroom teachers follow appropriate programing procedures and have appropriate attitudes. Responding to the need for instructing regular classroom teachers and others in special education skills, the Bureau has initiated several programs for awarding grants to:

--Colleges and universities to encourage the inclusion of preservice instruction in dealing with the handicapped in the curriculum of regular education students. For fiscal year 1976, the Bureau planned to award about 60 such grants, totaling about $3 million.

--States, colleges, and universities for inservice training programs for regular education teachers. About $3.5 million was budgeted for fiscal year 1976 projects, which was expected to reach 10,000 teachers.

--Institutions of higher education for training paraprofessionals to work with the handicapped. About $1.2 million was allocated for fiscal year 1976 projects, which was expected to reach about 1,000 students.

In addition, the Bureau promotes intrastate cooperation among local school districts, State agencies, colleges, universities, and other educator groups in planning for special education personnel-preparation activities, including the preparation of regular educators and paraprofessionals.

Although BEH is trying to train regular educators in special education skills and to help initiate training programs for paraprofessionals, only a relatively small proportion of its funds are devoted to these purposes. For example, only $3.5 million 1/, or only about 9 percent of the BEH fiscal year 1976 training budget, was allocated for inservice training of regular classroom teachers. Because instructing the Nation's 1.9 million regular classroom teachers in special skills is such a large-scale task, we believe this level of effort can have only limited impact. By far, the major portion of the Bureau's training budget remains directed to the college- and university-oriented program assistance grants.

1/ The planned funding for fiscal year 1976 was $3.5 million for inservice training. Because additional funds later became available, $4.1 million was actually received for this year.
The Bureau's continued concentration on producing new college graduates has been fostered, in part, by a lack of reliable data. Data on the total number of graduates prepared each year is lacking, as is data on the demand for new graduates. According to BEH officials, the lack of data means program planning without a solid foundation and difficulty in determining whether program objectives are realistic or desirable.

BEH officials said that in the near future the in-service program will need more specific guidelines and policies. Answers to such questions as the following will be needed.

--How much training in special education does the regular classroom teacher need?

--What skills does the regular classroom teacher need to effectively deal with the handicapped?

In our opinion, answers to these questions are needed now.

CONCLUSIONS

Much progress has been achieved since BEH started preparing special education personnel. The capacity of the Nation's colleges and universities to produce special education graduates has increased from an insignificant few to about 30,000 annually. This present special education graduate output is sufficient to meet the demand of local school systems for new teachers. However, another pressing need remains to be met—that of training the Nation's regular classroom teachers in special education skills.

To provide the handicapped with more appropriate educational opportunities, most of the Nation's handicapped schoolchildren are placed in regular school classrooms most of the day. Accordingly, most of the Nation's regular classroom teachers are charged with educating the handicapped and, therefore, require training in special education skills.

To provide the handicapped with a suitable education in the regular classroom, a teacher must be able to

--recognize and diagnose the handicapped's learning deficiencies and

--tailor and deliver a program of instruction which meets their individual needs.
In doing this, the busy classroom teacher needs trained paraprofessionals, or teacher aides. The lack of trained paraprofessionals and/or programs for training them is a major barrier to increasing the number of such individuals in education programs.

Funding of BEH personnel preparation programs is presently heavily committed to program assistance grants to colleges and universities. These grants were initiated at a time when teacher preparation institutions had only a limited capacity to develop special education graduates. This condition no longer exists.

RECOMMENDATIONS TO THE SECRETARY OF HEW

We recommend that the Secretary direct OE to:

--Provide a major emphasis on programs for training the Nation's regular classroom teachers to effectively deal with the handicapped, in cooperation with State and local education agencies and institutions of higher education.

--Discourage the use of BEH funds for stipends for full-time students, except where such stipends are deemed essential and other sources of student assistance are not available.

--Emphasize the need for applying individualized instruction techniques to the handicapped by supporting projects, such as those for preparing and using paraprofessionals, designed to extend the regular classroom teacher's ability to reach individual students.

AGENCY COMMENTS AND OUR EVALUATION

HEW commented on matters discussed in this report in a June 14, 1976, letter. (See app. XI.) It concurred with our recommendations. HEW said that BEH began funding the training of regular educators with fiscal year 1974 funds. It noted that the Bureau had provided the following preservice and/in service training support:

--$1,459,000 for academic year 1974-75.

--$3,874,000 for academic year 1975-76.

--$7,674,000 for academic year 1976-77.
HEW said that this level of investment, increasing over the past 3 years, clearly indicates that BEH already is implementing our recommendations. We do not fully agree.

In our draft report sent to HEW for comment, we recognized the actions taken by OE to promote special skills among regular educators (pp. 18-20 of this report) and expressed our belief that these actions would have only limited impact. The above figures contain funds for both preservice and inservice training programs for regular educators. Preservice programs provide college instruction for individuals preparing for a teaching career, while inservice programs deal with teachers already teaching in the regular classroom. A breakdown of the preservice and inservice program funds is shown below.

<table>
<thead>
<tr>
<th>Academic year</th>
<th>Preservice</th>
<th>Inservice</th>
<th>Total training funds</th>
<th>Percent of total training funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75</td>
<td>0</td>
<td>$1,459,000</td>
<td>$38,422,893</td>
<td>0</td>
</tr>
<tr>
<td>1975-76</td>
<td>$1,892,000</td>
<td>1,982,000</td>
<td>$37,635,500</td>
<td>5.0</td>
</tr>
<tr>
<td>3/1976-77</td>
<td>$3,550,000</td>
<td>4,098,000</td>
<td>$44,298,000</td>
<td>8.0</td>
</tr>
</tbody>
</table>

a/ Represents the total training funds obligated under part D, Education of the Handicapped Act.

b/ The proposed funding plan for preservice and inservice training for this year was initially $3,000,000 and $3,550,000, respectively. Because additional funds were later made available, $3,550,000 and $4,098,000 represent the funds actually received for preservice and inservice training for the year.

HEW's fiscal year 1977 appropriation request for academic year 1977-78 provides the following information.

<table>
<thead>
<tr>
<th>Amount</th>
<th>Total training funds</th>
<th>Percent of total training funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservice</td>
<td>Inservice</td>
<td>Preservice</td>
</tr>
<tr>
<td>$3,230,000</td>
<td>$3,735,000</td>
<td>$40,375,000</td>
</tr>
</tbody>
</table>

As shown above, the percentages of total training funds estimated to be spent on inservice and preservice training for academic years 1976-77 and 1977-78 remain the same at 9.3 and 8.0 percent, respectively. Thus, HEW's proposed action for academic year 1977-78 represents no change from the
previous year's operation of the program. Considering that the need for training regular classroom teachers is great and that the present production of special education teachers is now adequate to fulfill the anticipated demand, we believe that the actions taken and proposed by HEW will have little effect on bringing special skills instruction to the Nation's 1.9 million regular classroom teachers.

Furthermore, we do not believe that an investment of about $7 million should be characterized as providing a major emphasis on programs for training the Nation's regular classroom teachers.

Regarding our recommendation to discourage the use of BEH funds for the payment of stipends, HEW felt that Secretarial action was not necessary since the policy was implemented before our study. HEW said that:

--OE has and will continue to deemphasize the use of Bureau funds for stipends for full-time students.

--OE has been using a block grant system which allows grantees flexibility in allocating funds for priorities based on differential needs instead of allocating a fixed support grant tied to a fixed stipend level.

--Stipend funds for students at the undergraduate level have been significantly decreased and will continue to be limited, especially in the areas where other educational funds are available.

While the block grant system does allow grantees flexibility in allocating funds, it does not preclude them from giving stipends to students. As stated on page 17, the estimated cost of the stipends in fiscal year 1975 was about $9 million. Therefore, considering the questionable need and alternative funding sources available for student assistance, as discussed in this chapter, we believe that HEW should specify that teacher training funds not be used for student support, except where other sources of assistance are not available.

Regarding our recommendation on the need to provide teachers with the supplemental resources necessary for applying individual instruction techniques, HEW said such instruction is an accepted special education principle and has been a basis for BEH-supported projects to train paraprofessionals who will assist in the classroom in the education of handicapped children. The Bureau is proposing that approximately

33
23
$2.4 million be spent on training paraprofessionals for academic year 1977-78. If approved, this would constitute a four-fold increase in funding in this particular area over the past 3 years.

On page 18 we recognized actions already taken by BEH to train paraprofessionals and feel that this proposed increased level of funding will further help some regular classroom teachers to reach individual students. As a matter of practicality, however, such efforts can produce only a minimal impact by training only 2,000 or so individuals a year. Our review indicated that only 48,000 paraprofessionals are used in working with the handicapped in the Nation's public schools, as compared with 1.9 million regular classroom teachers.

Additionally, we believe that OE should examine the low-cost efforts made by some school districts to meet the individualized instruction needs of handicapped children, such as using high school students as teacher aides. OE should then publicize and promote these efforts throughout the Nation's school districts.

General

In addition, HEW provided several general observations, some of which it characterized as "serious concerns." These observations and our responses are discussed individually below. HEW said that it was pleased that our report found no serious problems with the management of OE's training program but rather dealt primarily with policy and program questions, such as priority setting. We would like to point out that the primary objective of our audit was not to evaluate the effectiveness of OE's management of the program. Although program management is a critical ingredient, we believe that OE's overriding concern should be the overall focus of the program--which is the issue that we addressed. Other concerns expressed by HEW and our responses follow.

HEW concern

Much of the report addresses itself to situations which are several years old, and yet are brought forward as though they were current.

Our response

If by "situations" HEW is referring to the relationship between the demand for special education teachers and the production of such teachers, our data is current and relates to
situations applying to school years 1974-75 through 1976-77.

HEW concern

The report is based heavily on source data and studies which HEW conducted or sponsored several years ago. Program modifications and priorities have been affected by those studies, but the report tends to suggest that this is new information that somehow has been ignored by the agency, rather than suggesting it is out-of-date, or has at least been responded to.

Our response

Most of the studies cited in our report were 1973 or 1974 publications. Many were recommended to us by HEW officials who said they were informative and that the agencies had used data from these reports in structuring their programs. We cited these studies primarily to demonstrate additional or collaborating support for our findings. We disagree that our report tends to suggest the studies are new information that has been ignored by HEW. The dates of all the study reports are shown in the report and an "agency actions" section is presented on page 18.

HEW concern

The basic premises of the study, the issues of mainstreaming, need to train regular educators, etc., are not new concepts to HEW. HEW program officials have spoken on these issues and have had published material on these subjects which are now part of the basic literature.

Essentially, this appears to HEW to be an analysis of the special education literature which HEW helped create and which has been part of its policymaking. It seems that HEW is being directed to use all training resources to train regular educators in handicapped education. HEW feels differently. It needs a balanced program. Its information sources, analyses of trends and professional skills tell HEW that more effort in this direction is needed, and this has been reflected in its priorities published in the Federal Register, in exhortations to the field and in budgeting which began over 3 years ago. HEW also feels a need to train specialists, to train new leadership people for local and State administrative posts, to train early childhood specialists, physical educators, etc.
Our response

We are aware that mainstreaming and the need for training regular educators, etc., are not new developments, and we are not reporting them as such. We state that most handicapped children now receive the major portion of their schooling in the regular classroom and that adequate preparations are not being made to meet this condition.

We took care to assure that sound procedures were used for accumulating the data we obtained by questionnaire and for analyzing and projecting this data. Data obtained by these procedures revealed that the number of new special educators prepared by the Nation's colleges and universities exceeded the limited ability of school districts to hire such new special education teachers by approximately 10,000 graduates. Furthermore, the capacity of colleges and universities to produce new special education teachers would substantially exceed the ability of school districts to hire new graduates even if OE funding were discontinued. In essence, this shows that OE's and others' efforts to increase the capacity of schools to produce special educators have been successful.

Now that the need for increasing this capacity has been met, we believe it is appropriate that more funds be directed to meet the needs of regular educators for special education skills. Accordingly, we are recommending that more emphasis be placed on providing special education skills for regular educators.

HEW's view that we are recommending that all training program funds be directed to this area is incorrect. We met with OE officials on March 1, 1976, and emphasized that we had worded this recommendation so as to allow OE flexibility in gradually redirecting funds toward providing these special skills for regular classroom teachers. We stressed that our concern was a matter of emphasis and that we were not implying a total withdrawal of Federal funds from programs to develop new special educators.

While HEW cites the need for a balanced effort, we do not consider its efforts as balanced when only about 9 percent of the program funds are devoted to the critical need of inservice training of regular educators, and the remaining funds are devoted to producing new special education teachers, an area where the supply already exceeds the demand.
HEW officials acknowledged that more effort is needed to provide special education skills for regular classroom educators, but that there is also a need to train specialists, State and local administrators, physical educators, early childhood specialists, etc. We question whether it is reasonable to spend funds to produce approximately one-third more special educators than can be hired by local school districts. Also, we believe the number of administrators that State governments would or could afford to hire is severely limited.
CHAPTER 3
INSTRUCTION OF VOCATIONAL EDUCATORS
NEEDED TO EXPAND CAREER OPPORTUNITIES
FOR THE HANDICAPPED

Vocational education is especially important to the handicapped if they are to maximize their self-sufficiency and become productive members of society. Nevertheless, few handicapped individuals are receiving vocational education.

The handicapped are usually excluded from the regular public school vocational education programs and are limited to segregated classes offering few career choices. One major barrier preventing them from participating in regular vocational programs is that vocational educators generally lack training in dealing with the handicapped. For this reason and because of their apprehension, vocational educators generally exclude the handicapped from the regular vocational programs. This lack of needed training could result in millions of handicapped individuals being unemployed and heavily dependent on society.

To improve career opportunities for the handicapped, vocational educators should receive additional instruction in how to effectively deal with the handicapped.

THE HANDICAPPED NEED VOCATIONAL EDUCATION

Traditionally, vocational education has placed little emphasis on programming for the handicapped. Handicapped students who could not compete on an equal basis with the nonhandicapped had to look outside the regular vocational education programs for the rare opportunities available to them in sheltered workshops /, private training programs, or institutions for the handicapped. The training opportunities that did exist were usually for handicapped students only, and, as such, were apart from the regular vocational education establishment.

/ Provide supervised employment, work experience, and/or vocational training for persons who are usually too severely handicapped to work in the competitive job market.
BEH officials estimate that, without vocational education, many of the millions of handicapped youth leaving school will be unemployed, on welfare, totally dependent on society, or otherwise idle much of the time. With vocational education, however, educators estimate that 75 percent of the physically disabled and 90 percent of the mentally retarded could work, either in the competitive job market or in a sheltered workshop. Recent studies have reported on the successes achieved by those handicapped who have received vocational training and obtained jobs. (See photographs on next page.) The handicapped person's need for vocational education has been recognized by the Congress, and Federal legislation requires that 10 percent of vocational education grants to States be directed to programs for the handicapped.

Needs of the handicapped are not being met

Although the Vocational Education Amendments of 1968 increased the emphasis on vocational programing for the handicapped, few handicapped individuals are receiving training and most of the programs which do exist are still separate from programs for the nonhandicapped. Several factors, however, are increasing the educational community's support for integrating handicapped individuals into regular vocational education programs.

First, in most cases segregated programs have not met the vocational needs of the handicapped. Few handicapped individuals are presently receiving vocational services even though a vast network of regular vocational programs exists. OE reported that the vocational network served over 13 million individuals in fiscal year 1974, but less than 2 percent of them were handicapped. OE estimates that 10 percent of the school-age population have learning handicaps.

A 1974 BEH-funded study found that some vocational education program resources could be greatly augmented by integrating handicapped students into primarily nonhandicapped vocational classes whenever possible. The study observed that more handicapped students can be served by integrating them into the regular vocational classes than by establishing separate programs and facilities for them.
Special education administrators also expressed concern about the lack of vocational programming for the handicapped. In response to our questionnaire, we received such comments as:

--Many school districts provide no vocational programs for the handicapped. Therefore, these children should be admitted to the regular vocational programs.

--The need to expand vocational programming for the handicapped is of the utmost importance. Without suitable training, the handicapped have limited job opportunities and are unlikely to become self-sufficient.

Another factor supporting integration of the handicapped is that segregated vocational classes are very limited in scope. The handicapped need a variety of vocational offerings to maximize their chances for self-sufficiency. The relatively few handicapped students in individual school districts precludes establishing a broad range of programs. For example, one school district we visited provided a choice of only two vocational offerings to handicapped students in a separate program, whereas nonhandicapped students in the same district had a choice of about 20 different career offerings and 130 different classes.

The Congress has also emphasized the desirability of integrating the handicapped. Toward this end, OE guidelines for implementing the Vocational Education Amendments of 1968 stipulate that the handicapped should be enrolled in programs designed for the nonhandicapped to the extent feasible.

TRAINING NEEDED FOR VOCATIONAL EDUCATION TEACHERS

One of the factors working against placing the handicapped in the regular vocational education classrooms is the regular vocational educators' lack of training in working with the handicapped. Most vocational teachers do not have such training and so are reluctant to accept the handicapped in their classes. According to a 1974 HEW-funded study of vocational education programs for the handicapped, vocational educators' lack of sensitivity and skill in dealing with the handicapped is a major barrier to integration into the regular vocational education programs.
State directors of special education responding to our questionnaire said that few vocational educators in their States had sufficient training in special education. School district administrators also said most regular vocational teachers lacked sufficient training. As the following chart shows, the vast majority of regular vocational teachers in 78 percent of the Nation's 11,700 school districts with enrollments of 300 or more pupils do not have sufficient training in instructing the handicapped, and teachers in most of the remaining districts have only marginal training. OE reported that in fiscal year 1974 about 266,000 teachers were teaching in vocational education programs. Approximately 109,000 teachers had received inservice training but only about 500, less than one-half of 1 percent, had received special training in working with handicapped.

Because integration of the handicapped into the regular education program is encouraged by Federal and State law and is necessary if the handicapped are to be served adequately, vocational education must prepare vocational educators to effectively deal with the handicapped. School district special education administrators responding to our questionnaire volunteered comments such as the following about attitudes of vocational educators.

--Vocational instructors are very apprehensive about having handicapped students in their classes. No handicapped students may enroll in vocational education.

--Vocational educators statewide will not accept handicapped children. They believe the handicapped should be placed in segregated programs. More handicapped could receive vocational services if regular instructors would accept them.

--Vocational educators are very reluctant to deal with handicapped students and strongly object to placement of these students in the regular classroom.

--Vocational educators should receive instruction to better understand the needs of the handicapped and the methods for educating them.

--Many problems arise when untrained, insensitive teachers deal with the handicapped.
PROPORTION OF VOCATIONAL EDUCATORS SUFFICIENTLY TRAINED IN SPECIAL EDUCATION SKILLS As Reported By School Districts Responding To Our Questionnaire

78% REPORTED LIMITED NUMBER OF VOCATIONAL EDUCATORS SUFFICIENTLY TRAINED (0-20%)
12% REPORTED MODERATE NUMBER OF VOCATIONAL EDUCATORS SUFFICIENTLY TRAINED (21-40%)
> 4% REPORTED ABOUT HALF OF VOCATIONAL EDUCATORS SUFFICIENTLY TRAINED (41-60%)
)N 4% REPORTED CONSIDERABLE NUMBER OF VOCATIONAL EDUCATORS SUFFICIENTLY TRAINED (61-80%)
2% REPORTED ALMOST ALL VOCATIONAL EDUCATORS SUFFICIENTLY TRAINED (81-100%)
DIRECTING EFFORTS TO TRAINING VOCATIONAL EDUCATORS

According to educators, two important goals for training regular vocational teachers are (1) overcoming the negative attitudes teachers have toward the handicapped and (2) providing educators with techniques for instructing the handicapped. Like regular classroom teachers, vocational educators can get the needed training through inservice instruction. State and local school district administrators of special education who responded to our questionnaire indicated strong support for inservice instruction of vocational educators.

The need for expanding vocational education opportunities for the handicapped requires that a concerted effort be made to provide regular vocational education teachers with skills and knowledge for dealing with the handicapped. Although such training is authorized under several Federal programs, no major effort has been made to insure that it is provided. The following legislation, administered by OE, authorizes programs for training vocational educators.

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Fiscal year 1975 funds (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>--The Education of the Handicapped Act, part D--recruitment and training of personnel.</td>
<td>$37.7</td>
</tr>
<tr>
<td>--The Vocational Education Act of 1963, as amended, part B--State grants. Ten percent of the funds provided must be directed to programs for the handicapped.</td>
<td>421.0</td>
</tr>
<tr>
<td>--The Education Professions Development Act, part B--Teacher Corps, part D--training for personnel serving or planning to serve in programs other than higher education programs, and part F--training and development programs for vocational education personnel.</td>
<td>37.5 8.1 9.0</td>
</tr>
</tbody>
</table>
While mainly directed to other purposes, some projects for training vocational educators in the skills for dealing with the handicapped have been funded under the above programs. For example, some of the grants awarded under part F of the Education Professions Development Act for training and development projects for vocational educators have included money for training vocational educators to work with handicapped individuals.

Under part B of the Vocational Education Act, States are allowed to use teacher-training funds to help assure the quality of vocational education programs. An official in one State told us an inservice training program for vocational education has successfully (1) taught some vocational educators the skills for dealing with the handicapped and (2) overcome negative attitudes toward the handicapped. Such training programs have been conducted for selected educators during the past 3 years, with the assistance of Federal vocational education funds. The State official said that teachers participating in this training became leaders in improving and expanding vocational programing for the handicapped.

Because providing special education skills to over 200,000 vocational educators is such a large task, we believe Federal and State efforts must be increased. According to OE officials, lack of coordinated Federal leadership has resulted in the lack of a major effort to train vocational educators in special education skills. Providing special education skills to vocational educators has not been a major goal of any of the programs authorized under the previously mentioned legislation.

CONCLUSIONS

The handicapped are presently receiving little in the way of vocational education programing because they have been excluded from the regular vocational program. As a result, their career opportunities are limited. Integrating the handicapped into the regular vocational programs requires instructing vocational educators in the needs and abilities of the handicapped and in the skills necessary for effectively dealing with them. While some projects have been funded to provide special education skills to some vocational educators, no systematic plan has been developed or implemented to assure that a significant number of the Nation's vocational educators receive the needed training.
**RECOMMENDATION TO THE SECRETARY OF HEW**

We recommend that the Secretary direct OE to develop and implement a plan for a major drive to provide vocational educators with the skills and abilities needed to effectively deal with the handicapped.

**AGENCY COMMENTS**

HEW concurred with our recommendation and acknowledged that the current exclusion of the handicapped from regular vocational education programs is a serious problem which needs attention. HEW said that the problem is twofold: vocational educators are not being afforded the opportunity to acquire the skills and abilities necessary to work effectively with the handicapped in vocational education and, secondly, special educators are not adequately prepared to provide the appropriate career and prevocational educational experiences to handicapped students. HEW also said that although there are efforts underway through Education for the Handicapped Act training funds to train specialists in this area of need, it is proposing that OE develop a formal cooperative agreement between the Bureau of Education for the Handicapped and the Bureau of Occupational and Adult Education to facilitate this activity.
CHAPTER 4

IMPROVED EVALUATION AND DISSEMINATION

NEEDED FOR SPECIAL DEVELOPMENTAL PROJECTS

For fiscal years 1968-75 the Bureau of Education for the Handicapped has made over $25 million available for special developmental project grants. These "special projects" are funded under part D of the Education of the Handicapped Act and are intended to develop ways of training teachers for the handicapped that are more effective and more efficient than traditional methods. According to OE, the projects are funded with the expectation that they will have a broad impact on the way personnel are trained to educate the handicapped; large-scale projects designed to develop significantly different ways of training are emphasized.

BEH had not fully benefited from the Special Projects Program because it did not have an appropriate system for evaluating or disseminating the project results. Accordingly, the Bureau did not know whether methods developed by the Special Projects Program were better than traditional methods, and it did not communicate useful information developed to potential users.

Three major shortcomings in the Bureau's project management system kept the Bureau from fully benefiting from the Special Projects Program:

1. Projects were not adequately monitored to assess their progress and direction.
2. Final project results were not evaluated.
3. No formal dissemination system was used to distribute new developments to potential users.

IMPROVEMENTS NEEDED IN PROJECT-MONITORING SYSTEM

BEH delegates the responsibility for project evaluation to each grantee. However, grantees lack the training to conduct adequate evaluations and the Bureau's project-monitoring system neither provides guidance to grantees nor assures that projects are adequately evaluated. For example, the monitoring system does not (1) require grantees to correct evaluation plan weaknesses that BEH finds during the...
application review or (2) provide BEH officials with data on how funded projects are progressing toward stated goals.

Special project grants are awarded to colleges, universities, and other institutions desiring to develop new methods and approaches for training teachers for the handicapped. For fiscal years 1968-75 the Bureau awarded 186 such grants, totaling about $25 million. Grant applications are reviewed by BEH officials and by field experts hired by BEH. The Bureau then notifies applicants of the approval or disapproval of their applications.

We found that BEH approved grant applications even though field experts criticized their evaluation plans as inadequate. We reviewed 36 special project grants and found that in 23 cases the applications had received such criticism. The field experts often observed, for example, that the evaluation plans did not provide for suitable data collection or that the evaluation methodology was inappropriate. Yet, the Bureau usually did not require the applicants to correct these weaknesses.

BEH approved one project application without requiring revision even though all the field experts who reviewed it concluded that its evaluation plan was inadequate. The Bureau expected the project to make innovations in teacher-preparation methodology and to contribute greatly to meeting local and national needs in the area. However, without adequately evaluating the results, it is unlikely that the Bureau will know whether the project met its objectives.

Bureau project files did not provide sufficient data for adequate project appraisal. Data was lacking on whether projects were on schedule, meeting expectation, or otherwise accomplishing intended goals. Project files also had incomplete data on agreements and other results of contacts between BEH and grantee officials.

Site visits by BEH officials to monitor projects were also limited. The Bureau's fiscal year 1975 program review document states that only a minimal number of site visits were conducted. BEH officials told us that they generally had 50 to 60 active special projects grants, but they did not visit more than 10 percent of the sites during any year. They said past restrictions on travel funds have limited the ability of staff to visit project sites.

Information obtained during site visits was generally deficient because the visits were made without formalized
procedures. For example, the purposes of the visits and the steps to be followed to achieve the purposes were not specified. Also, findings and recommendations were not documented and the files contained no evidence that visit results were communicated to grantees.

FINAL PROJECT REPORTS NOT EVALUATED

The final report, one of the most important elements in evaluation, is useful for judging the attainment of project objectives and overall program goals. However, the Bureau had not (1) adopted systematic procedures for evaluating final reports, (2) enforced its requirement that grantees submit final reports, or (3) formally evaluated those reports that were submitted. Without evaluating the special project final reports, BEH officials would find it difficult to determine project success. Of 98 projects completed before January 1975, final reports were submitted for only 36; moreover, only 1 of those reports assessed the project adequately so that its development and accomplishments could be compared with expected results.

In addition, the Bureau had not compared the special project results with those of traditional teaching methods. Such comparisons would have allowed management to determine the relative effectiveness of different projects. BEH officials said staffing limitations had precluded them from making project and method comparisons.

BEH officials also said the size of their project work-load compared to the small number of professional staff assigned to the teacher-preparation programs limited the Bureau's ability to adequately evaluate and monitor projects funded under part D of the Education of the Handicapped Act. BEH had a total of 12 professional staff members who function as special project officers, State liaison officers, and program assistance grant officers under the act. As a result, each was responsible for a minimum of 55 projects and some are responsible for as many as 95.

NEED TO DISSEMINATE PROJECT RESULTS

Although the purpose of the Special Project Program is to develop new methods of teacher preparation to be broadly applied by training institutions, at the time of our field-work, BEH had not established systematic procedures for disseminating the results of its projects to potential users.
An OE-funded study reported in 1974 that:

--Many federally supported projects, although highly innovative, culminated in largely unused final reports on not-quite-finished materials.

--Information on project developments never seemed to be widely spread, even though dissemination was a goal for most projects.

According to the study, the failure to share the results of developmental projects is particularly disastrous in such relatively small fields as special education where resources are limited and the lack of a mass audience discourages commercial initiative.

Because the Bureau (1) expects its special projects to have a broad impact and (2) has authorized substantial expenditures for such projects, we believe the Bureau should have developed systematic procedures for disseminating project results to potential users. Although BEH officials said new methods or other developments from special project grants had been incorporated into some of the grantees' programs, they were seldom implemented at other institutions. Of nine grantee officials we contacted, seven said either that the project developments were not being used at other institutions or that they did not know whether they were.

In March 1975 BEH established a task force to promote the dissemination of developments achieved by BEH-funded projects. The task force was to develop a policy on Bureau responsibility for dissemination.

**AGENCY ACTIONS**

Site-visit procedures have been developed and incorporated into a site-visit manual for staff use. The site-visit manual requires that findings and recommendations be documented and communicated to the grantee. We believe this will help improve the Bureau's monitoring system, although the large number of projects and the relatively small number of professional staff may limit successful implementation.

BEH officials said project results were inadequately evaluated partly because grantees did not know sound evaluation procedures. Accordingly, the Bureau is funding a project for training grantees in designing and conducting...
a project evaluation. The Bureau has also instructed its special project staff to insure that:

--Grantees submit project performance reports at least annually.

--Grantees submit final reports for all special projects.

--Field experts evaluate final project reports.

--Project officers analyze field experts' evaluations.

--Project officers prepare written evaluations of the final project reports.

--Project files contain all pertinent documentation, including evaluations and reports.

CONCLUSIONS

For the projects we reviewed, BEH did not have an evaluation system adequate to insure that the special project grants were meeting program objectives. Grantees did not provide the Bureau with adequate information to enable it to effectively (1) manage projects and (2) compare project results with those of traditional methods. However, if successfully implemented, action taken by BEH since we completed our fieldwork should greatly improve special project monitoring and evaluation.

At the time of our fieldwork, BEH had not developed systematic procedures for disseminating information on the results of its Special Projects Program. However, the Bureau has recently established a dissemination task force which is to develop a policy on Bureau responsibility for dissemination. Until such a policy is developed and procedures are implemented for disseminating project results, it is unlikely that BEH will realize the broad impact it expects from the Special Projects Program. BEH, therefore, should implement such procedures as soon as possible.
BACKGROUND OF SAMPLE

We sent questionnaires to an independent, stratified, random sample of school districts; to an independent, random sample of colleges and universities that train special education teachers; and to the departments of education of all States and the District of Columbia.

SCHOOL DISTRICT SAMPLE

We selected this sample from a list of 17,136 public school systems in operation during school year 1973-74. The list provided by HEW's National Center for Educational Statistics, includes public school districts of the United States and its outlying areas. The districts were stratified into the following groups and a random sample was selected from each. The 50 largest school districts in the Nation, however, were automatically selected.

<table>
<thead>
<tr>
<th>Groups of pupils</th>
<th>Number of districts in Group</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000 pupils or more</td>
<td>751</td>
<td>401</td>
</tr>
<tr>
<td>2,500 - 9,999 pupils</td>
<td>3,180</td>
<td>228</td>
</tr>
<tr>
<td>300 - 2,499 pupils</td>
<td>7,805</td>
<td>223</td>
</tr>
<tr>
<td>Total</td>
<td>11,736</td>
<td>852</td>
</tr>
</tbody>
</table>

The 5,400 districts with fewer than 300 pupils were not sampled because they enrolled only 1.2 percent of the Nation's public school students.

COLLEGE AND UNIVERSITY SAMPLE

We selected a sample of 167 institutions at random from the Council for Exceptional Children's 1973 list of 296 colleges and universities having professional special education teacher training programs. Institutions with only speech and hearing programs were not sampled.

Unless otherwise stated, the projections, percentages, and information presented as results of the questionnaire are generalized from the samples described above for the entire universe of school districts or university programs covered.
APPENDIX I

DESCRIPTION OF UNIVERSE, SAMPLE, AND RESPONDENTS

<table>
<thead>
<tr>
<th>Questionnaire units</th>
<th>Colleges and universities listed as having Special education teacher training programs</th>
<th>Departments of education of all 50 States and the District of Columbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public school districts with 300 or more students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uniwers:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units in universe</td>
<td>11,736</td>
<td>(a/296)</td>
</tr>
<tr>
<td>Public school enrollment</td>
<td>45.5 million</td>
<td>-</td>
</tr>
<tr>
<td>Sample:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of sample</td>
<td>Stratified random (note b)</td>
<td>Random</td>
</tr>
<tr>
<td>Units sent questionnaires</td>
<td>852</td>
<td>167</td>
</tr>
<tr>
<td>Respondents:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response rate--percent of sample returning questionnaire</td>
<td>89</td>
<td>93</td>
</tr>
<tr>
<td>Percent of universe of units responding</td>
<td>6.5</td>
<td>52.4</td>
</tr>
<tr>
<td>Students enrolled in responding units</td>
<td>13.8 million</td>
<td>-</td>
</tr>
<tr>
<td>Percent of total public school enrollment in universe represented by respondents</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>Number of States with respondents</td>
<td>All</td>
<td>42</td>
</tr>
</tbody>
</table>

\(a/\)Based on a 1973 listing prepared by the Council for Exceptional Children.

\(b/\)Includes the Nation's 50 largest districts as a certainty strata.
DEMAND FOR SPECIAL EDUCATION TEACHERS

DEMAND BY TEACHER SETTING

- Resource Room Teachers: 47%
- Other: 10%
- Itinerant Teachers: 16%
- Self-Contained Classroom Teachers: 27%

DEMAND BY SPECIALTIES

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Teacher Demand Over 2 School Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disabilities*</td>
<td>10,500</td>
</tr>
<tr>
<td>Resource Room Specialists*</td>
<td>8,300</td>
</tr>
<tr>
<td>Generalists*</td>
<td>6,100</td>
</tr>
<tr>
<td>Emotional Disturbance*</td>
<td>5,100</td>
</tr>
<tr>
<td>Educable Mentally Retarded*</td>
<td>4,100</td>
</tr>
<tr>
<td>Trainable Mentally Retarded</td>
<td>2,200</td>
</tr>
<tr>
<td>Crippled or Health-Impaired</td>
<td>1,000</td>
</tr>
<tr>
<td>Multiply Handicapped</td>
<td>1,000</td>
</tr>
<tr>
<td>Visually Handicapped</td>
<td>700</td>
</tr>
<tr>
<td>Hearing-Impaired</td>
<td>2,300</td>
</tr>
<tr>
<td>All Other*</td>
<td>3,400</td>
</tr>
</tbody>
</table>

* Duplications occurred in these categories when school district administrators desired one or more teachers with multiple specialties, generalists, or resource room specialists with additional background in particular handicaps. Unduplicated 2-year demand is projected to be 36,000.
TRENDS IN USE OF SPECIAL EDUCATION TEACHERS

For school years 1975-76 and 1976-77, school district administrators planned to increase the emphasis on resource rooms and decrease the emphasis on self-contained classrooms by hiring a greater number of resource room teachers. The chart below shows, by teaching setting, the degree of the planned shift in emphasis to resource learning as compared with the proportion of special education teachers employed during the 1974-75 school year.

<table>
<thead>
<tr>
<th>Teaching setting</th>
<th>Percent per teacher setting</th>
<th>Planned additional hires through school year 1976-77</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-contained</td>
<td>51</td>
<td>27</td>
</tr>
<tr>
<td>Resource room</td>
<td>30</td>
<td>47</td>
</tr>
<tr>
<td>Itinerant</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>
# APPENDIX IV

## IMPACT OF GREATER USE OF RESOURCE ROOMS IN SPECIAL EDUCATION PROGRAMS

School districts making greater use of resource rooms in their special education programs were providing special education services to proportionately more students than were districts making less use of resource rooms.

### PROPORTION OF SCHOOL DISTRICT ENROLLMENT RECEIVING SPECIAL EDUCATION SERVICES (note c)

| PERCENT OF TOTAL DISTRICT ENROLLMENT |   |   |   |   |   |   |   |   |   | 10 | 9  | 8  | 7  | 6  | 5  | 4  | 3  | 2  | 1  | 0   |
| DISTRICTS WITH MORE THAN 68,816 PUPILS |   |   | 7.98 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| DISTRICTS WITH 10,000 TO 68,816 PUPILS |   |   | 6.93 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| DISTRICTS WITH 2,500 TO 9,999 PUPILS |   |   | 6.41 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

- **Districts making greater than median use of resource rooms (note d)**
- **Districts making less than median use of resource rooms (note d)**

\(\text{DISTRICTS WITH MORE THAN 68,816 PUPILS}\)
\(\text{DISTRICTS WITH 10,000 TO 68,816 PUPILS}\)
\(\text{DISTRICTS WITH 2,500 TO 9,999 PUPILS}\)

- **a** Districts enrolling 300 to 2,499 students were not included in this analysis because several had no special education program and others served handicapped students from several other districts.
- **b** 10 percent is a conservative OE estimate of the proportion of students that are handicapped and require special education services.
- **c** The proportion of school district enrollment that receives special education services is significantly different statistically for the two groups at the .90 confidence level (using a one-tailed t-test). The confidence level represents the probability that the difference between the means is not a product of chance related to our sample selections. Note a on appendix V describes the one-tailed t-test.
- **d** We used the proportion of the district's special education teachers who are resource room teachers as the measure of district use of resource room teachers.
### COMPARISON OF DISTRICTS WITH HIGH DEGREE AND THOSE WITH LOW DEGREE OF REGULAR TEACHER INVOLVEMENT WITH THE HANDICAPPED

<table>
<thead>
<tr>
<th>Strata description</th>
<th>Percent of regular teachers involved with the handicapped</th>
<th>Percent of total special education staff in: (note a)</th>
<th>Ratio of the handicapped served to special education staff</th>
<th>Ratio of total school enrollment to special education staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent of handicapped served</td>
<td>Resource rooms</td>
<td>Self-contained classroom</td>
<td></td>
</tr>
<tr>
<td>Schools above 68,816 enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 60 60 and less</td>
<td>7.7</td>
<td>34.7</td>
<td>49.8</td>
<td>21.3:1</td>
</tr>
<tr>
<td>60 and less</td>
<td>6.2</td>
<td>17.9</td>
<td>67.7</td>
<td>16.9:1</td>
</tr>
<tr>
<td>t-value (confidence level)</td>
<td>1.62(.94)</td>
<td>2.99(.99+)</td>
<td>3.00(.99+)</td>
<td>1.85(.96)</td>
</tr>
<tr>
<td>Schools from 10,000 to 68,816 enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 60 60 and less</td>
<td>7.1</td>
<td>36.1</td>
<td>47.5</td>
<td>21.2:1</td>
</tr>
<tr>
<td>60 and less</td>
<td>5.2</td>
<td>23.5</td>
<td>58.9</td>
<td>17.0:1</td>
</tr>
<tr>
<td>t-value (confidence level)</td>
<td>2.72(.99+)</td>
<td>4.66(.99+)</td>
<td>4.03(.99+)</td>
<td>3.27(.99+)</td>
</tr>
<tr>
<td>Schools from 2,500 to 9,999 enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 60 60 and less</td>
<td>6.5</td>
<td>35.3</td>
<td>45.6</td>
<td>20.6:1</td>
</tr>
<tr>
<td>60 and less</td>
<td>4.1</td>
<td>20.5</td>
<td>63.2</td>
<td>16.1:1</td>
</tr>
<tr>
<td>t-value (confidence level)</td>
<td>3.34(.99+)</td>
<td>3.51(.99+)</td>
<td>3.96(.99+)</td>
<td>2.37(.99+)</td>
</tr>
<tr>
<td>Schools from 300 to 2,499 enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 60 60 and less</td>
<td>9.6</td>
<td>43.9</td>
<td>33.6</td>
<td>16.9:1</td>
</tr>
<tr>
<td>60 and less</td>
<td>5.0</td>
<td>22.9</td>
<td>46.5</td>
<td>11.1:1</td>
</tr>
<tr>
<td>t-value (confidence level)</td>
<td>1.94(.97)</td>
<td>4.04(.99+)</td>
<td>2.37(.99)</td>
<td>3.36(.99+)</td>
</tr>
</tbody>
</table>

*The confidence level represents the probability that the difference between the means is not due simply to chance. For our purposes, any confidence level less than .90 indicates that a real difference does not exist. The t-test is used to test hypotheses concerning arithmetic means. A one tailed t-test is used to test the hypothesis that the mean of one variable is greater than another. For example, for the schools with enrollments above 68,816, the one tailed t-test would test whether the 7.7 percent mean for the over-60 group was, in fact, greater than the 6.2 percent mean for the under-60 group or whether the observed difference results from chance differences that occur because sampling was used.*
## Desirability of Three Different Methods of Inservice Instruction in Special Education for Regular Classroom Teachers

<table>
<thead>
<tr>
<th>Method</th>
<th>Type of administrator</th>
<th>Percent of sampled administrators rating</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onsite instruction by contracted specialists</td>
<td>School district</td>
<td>76</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>State</td>
<td>84</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>College</td>
<td>77</td>
<td>8</td>
</tr>
<tr>
<td>Onsite instruction by special education staff in the district</td>
<td>School district</td>
<td>70</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>State</td>
<td>78</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>College</td>
<td>54</td>
<td>17</td>
</tr>
<tr>
<td>Stipends for university-based instruction</td>
<td>School district</td>
<td>67</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>State</td>
<td>57</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>College</td>
<td>80</td>
<td>5</td>
</tr>
</tbody>
</table>
### POTENTIAL BARRIERS TO INCREASED USE OF PARAPROFESSIONALS IN SPECIAL EDUCATION (note a)

<table>
<thead>
<tr>
<th>POTENTIAL BARRIER</th>
<th>RESPONDENTS</th>
<th>PERCENT OF DISTRICTS (note b) OR STATES IN WHICH BARRIER WAS CONSIDERED SIGNIFICANT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SCHOOL</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>DISTRICTS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STATES</td>
<td></td>
</tr>
<tr>
<td>APPREHENSION ABOUT QUALITY OF SERVICE</td>
<td></td>
<td>18.0</td>
</tr>
<tr>
<td>TEACHING CONTRACT RESTRICTIONS</td>
<td></td>
<td>13.2</td>
</tr>
<tr>
<td>AVAILABILITY OF TRAINING PROGRAMS</td>
<td></td>
<td>44.3</td>
</tr>
<tr>
<td>LEGAL RESTRICTIONS</td>
<td></td>
<td>16.4</td>
</tr>
<tr>
<td>AVAILABILITY OF TRAINED PARAPROFESSIONALS</td>
<td></td>
<td>53.4</td>
</tr>
<tr>
<td>AVAILABILITY OF FUNDS TO HIRE PARAPROFESSIONALS</td>
<td></td>
<td>86.9</td>
</tr>
</tbody>
</table>

---

* a Based on State and school district administrators' perceptions of the significance of the barrier.
* b Both using and nonusing districts, projected from sample responses.
### PLANNED EXPANSIONS OF COLLEGIATE SPECIAL EDUCATION PROGRAMS

<table>
<thead>
<tr>
<th>Type of addition or expansion</th>
<th>All colleges</th>
<th>BEH-supported colleges</th>
<th>Non-BEH-supported colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add new specialty program</td>
<td>37%</td>
<td>38%</td>
<td>32%</td>
</tr>
<tr>
<td>Expand specialty program</td>
<td>28</td>
<td>29</td>
<td>26</td>
</tr>
<tr>
<td>Add or expand generalist program</td>
<td>17</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Add or expand undergraduate program</td>
<td>28</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>Expand continuing education services</td>
<td>35</td>
<td>40</td>
<td>21</td>
</tr>
<tr>
<td>Add or expand graduate program</td>
<td>41</td>
<td>48</td>
<td>21</td>
</tr>
<tr>
<td>Other additions</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Percent of responding colleges planning expansions or additions: 68% (BEH-supported colleges), 70% (Non-BEH-supported colleges), 61%.

Total number of responding colleges: 155 (All colleges), 117 (BEH-supported colleges), 38 (Non-BEH-supported colleges).
PERCEIVED EFFECT OF WITHDRAWAL
OF FEDERAL FUNDING

Colleges and university administrators estimated that the hypothetical withdrawal of BEH program assistance grants would (1) reduce the capacity of their schools to graduate special educators (table 1) and (2) cut program elements to varying degrees (table 2).

**TABLE 1**

<table>
<thead>
<tr>
<th></th>
<th>With BEH funding</th>
<th>Without BEH funding</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual capacity to prepare B.A. and M.A. graduates in special education (note a)</td>
<td>35,300</td>
<td>b/27,700</td>
<td>7,600</td>
</tr>
</tbody>
</table>

a/ Includes those schools receiving and those not receiving BEH support. Excludes schools with speech and hearing programs only.

b/ Total B.A. and M.A. degrees awarded in academic year 1973-74 are estimated at 27,400. Total number of teachers prepared during that year with and without degrees is estimated at 33,000.

**TABLE 2 (note a)**

<table>
<thead>
<tr>
<th>Program element</th>
<th>None or some cuts</th>
<th>Moderate cuts</th>
<th>Substantial or critical cuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>46</td>
<td>19</td>
<td>34</td>
</tr>
<tr>
<td>Programs</td>
<td>35</td>
<td>21</td>
<td>44</td>
</tr>
<tr>
<td>Consultants</td>
<td>33</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>Equipment</td>
<td>42</td>
<td>13</td>
<td>46</td>
</tr>
<tr>
<td>Materials</td>
<td>21</td>
<td>19</td>
<td>60</td>
</tr>
<tr>
<td>Facilities</td>
<td>87</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

a/ Bureau-supported schools only. Excludes schools with speech and hearing programs only.

b/ Due to rounding, sums across the table may not total 100 percent.
## PRINCIPAL REASONS WHY COLLEGE STUDENTS ENROLL IN PROGRAMS PREPARING SPECIAL EDUCATION TEACHERS (note a)

<table>
<thead>
<tr>
<th>Reasons for enrollment</th>
<th>Undergraduate level</th>
<th>Graduate level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BEH-supported colleges</td>
<td>Non-BEH-supported colleges</td>
</tr>
<tr>
<td>High probability of employment</td>
<td>78%</td>
<td>79%</td>
</tr>
<tr>
<td>Previous experience with the handicapped</td>
<td>52</td>
<td>53</td>
</tr>
<tr>
<td>Previous commitment to the field</td>
<td>not rated</td>
<td>not rated</td>
</tr>
<tr>
<td>Desire to work with the handicapped</td>
<td>78</td>
<td>82</td>
</tr>
<tr>
<td>Availability of financial aid</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Other reasons</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

a/Based on the appraisals of 155 collegiate administrators—117 in BEH-supported programs and 38 in non-BEH-supported programs.
Mr. Gregory J. Ahart  
Director, Manpower and Welfare Division  
U.S. General Accounting Office  
Washington, D.C.

Dear Mr. Ahart:

The Secretary asked that I respond to your request for our comments on your draft report entitled, "Training Educators for the Handicapped: A Need for Federal Program Redirection," February 3, 1976, B-164031(1). The enclosed comments represent the tentative position of the Department and are subject to reevaluation when the final version of this report is received.

We appreciate the opportunity to comment on this draft report before its publication.

Sincerely yours,

John D. Young  
Assistant Secretary, Comptroller

Enclosure

General Observation

We are pleased that the GAO report finds no serious problems with the management of the OE training program, reflecting instead, primarily, on policy and programmatic questions, such as priority setting. Further, the report notes that in the special project area procedures are in place to improve evaluation efforts.

There are, however, a number of serious concerns we have about this report:

1. Much of the report addresses itself to situations which are several years old, and yet are brought forward as though they were current.

2. The report is heavily based on source data and studies which HEW conducted or sponsored several years ago. Program modifications, and priorities, have been affected by those studies. GAO's report tends to suggest they are new information that somehow have been ignored by the agency, rather than out-of-date, or, at least, responded to.

3. The basic premises of the study, the issues of mainstreaming, need to train regular educators, etc., are not new concepts to HEW. HEW program officials have spoken on these issues and have had published material on these subjects which are now part of the basic literature.

Essentially, this appears to us to be an analysis of the special education literature which we helped create and which has been part of our policy making. It seems that we are being directed to use all training resources to train regular educators in handicapped education. We feel differently. We need a balanced program. Our information sources, our analyses of trends, our professional skills tell us that more effort in this direction is needed, and this has been reflected in our priorities published in the Federal Register, in our exhortations to the
field and in our budgeting beginning over three years ago. We also feel a need to train specialists, to train new leadership people for local and State administrative posts, to train early childhood specialists, physical educators, etc.

**GAO Recommendation**

The Secretary direct OE to:

*Provide a major emphasis on programs for training the nation's regular classroom teachers to effectively deal with the handicapped, in cooperation with State and local education agencies and institutions of higher education.*

**Department Comment**

We concur. The Bureau of Education for the Handicapped initiated the funding of training of regular educators with fiscal year 1974 funds. During the 1974-75 academic year, 27 projects, in the amount of $1,459,000, were supported by the Bureau to train regular classroom teachers to meet the needs of handicapped children in regular classroom situations. During the 1975-76 academic year approximately 90 projects, in the amount of $3,874,000, were supported to train and retrain regular classroom teachers. For the 1976-77 academic year, the Bureau has projected spending approximately $7,674,000, in the area of regular education. This amount will be for programs which train regular education teachers at pre-service and/or in-service level. It includes, as well, physical education and recreation specialists along with supporting services from special educators to work with children who display variations in learning or behavioral styles. This level of investment, increasing over the past three years, clearly is an indication that the Bureau already is implementing this particular recommendation.

**GAO Recommendation**

The Secretary direct OE to:

*Discourage use of Bureau of Education for the Handicapped funds for the payment of stipends for full-time students except where such stipends are deemed essential and other sources of student assistance are not available.*
Department Comment

We concur with the principle, but feel Secretarial action is not necessary as this policy is being implemented and was in place before the GAO study. OE has been and will continue to de-emphasize the use of BEH funds for stipends for full-time students. OE has been utilizing a block grant system which allows the grantee flexibility in allocating funds for priorities based on differential needs instead of allocating a fixed support grant tied to a fixed stipend level. Stipend funds for students at the undergraduate level have been significantly decreased and will continue to be limited especially in the areas where other educational funds are available.

GAO Recommendation

The Secretary direct OE to:

*Emphasize the need for application of individualized instruction techniques for the handicapped by supporting projects designed to extend the regular classroom teachers' ability to reach individual students, with supplemental resources, such as programs for preparing and using paraprofessionals.*

Department Comment

Again, we have no objection to the recommendation's thrust and do concur. It is an accepted special education principle, and has been a basis for BEH programming. BEH supported numerous projects to train paraprofessionals who will assist in the classroom in the education of handicapped children. Also the Bureau is projecting that approximately $2,425,000 will be spent on training paraprofessionals for the 1977-78 budget. If approved, it would indicate a 400% increase in funding in this particular area over the past three years by the Bureau of Education for the Handicapped.

In relation to individualized instruction techniques, the Bureau has indicated in its criteria for evaluation of applications for training funds that applicants must clearly describe the effectiveness of program graduates in facilitating the educational progress of handicapped children. Further, the applicant must include a delineation of competencies that each program graduate will acquire and will...
subsequently exhibit, as well as to include the evaluation procedures used in measuring the attainment of those competencies. Applications also must describe the extent to which substantive content and organization of the program are (1) appropriate to the student's attainment of professional knowledge and competencies that are necessary for the provision of quality educational services for handicapped children, and (2) demonstrate an awareness of relevant methods, procedures, techniques, and instructional media materials that can be used in the preparation of qualified educators of handicapped children.

**GAO Recommendation**

The Secretary direct OE to:

Develop and implement a plan to stimulate a major effort to provide vocational educators with the skills and abilities necessary to effectively deal with the handicapped in the regular classroom.

**Department Comment**

We concur with the findings of the GAO report and firmly acknowledge that the current exclusion of the handicapped from regular vocational education programs is a serious problem which needs attention. The problem is twofold: vocational educators are not being afforded the opportunity to acquire the skills and abilities necessary to work effectively with the handicapped in vocational education and, secondly, special educators are not adequately prepared to provide the appropriate career and pre-vocational educational experiences to handicapped students. Although there are efforts underway through EHA training funds to train specialists in this area of need, we are proposing that the U.S. Office of Education develop a formal cooperative agreement between the Bureau of Education for the Handicapped and the Bureau of Occupational and Adult Education to facilitate this activity. The two Bureaus will jointly establish program guidelines aimed at developing joint vocational and special education personnel preparation objectives, joint modes of implementation and evaluation, as well as jointly stressing the high priority of this approach to the training institutions.
PRINCIPAL HEW OFFICIALS
RESPONSIBLE FOR ACTIVITIES
DISCUSSED IN THIS REPORT

<table>
<thead>
<tr>
<th>Name</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretary of Health, Education, and Welfare:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>David Mathews</td>
<td>Aug. 1975</td>
<td>Present</td>
</tr>
<tr>
<td>Elliot L. Richardson</td>
<td>June 1970</td>
<td>Jan. 1973</td>
</tr>
<tr>
<td>Assistant Secretary for Education:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virginia Y. Trotter</td>
<td>June 1974</td>
<td>Present</td>
</tr>
<tr>
<td>Commissioner of Education:</td>
<td>Aug. 1976</td>
<td>Present</td>
</tr>
</tbody>
</table>

APPENDIX XII

68
Copies of GAO reports are available to the general public at a cost of $1.00 a copy. There is no charge for reports furnished to Members of Congress and congressional committee staff members. Officials of Federal, State, and local governments may receive up to 10 copies free of charge. Members of the press; college libraries, faculty members, and students; and non-profit organizations may receive up to 2 copies free of charge. Requests for larger quantities should be accompanied by payment.

Requesters entitled to reports without charge should address their requests to:

U.S. General Accounting Office
Distribution Section, Room 4522
441 G Street, NW.
Washington, D.C. 20548

Requesters who are required to pay for reports should send their requests with checks or money orders to:

U.S. General Accounting Office
Distribution Section
P.O. Box 1020
Washington, D.C. 20013

Checks or money orders should be made payable to the U.S. General Accounting Office. Stamps or Superintendent of Documents coupons will not be accepted. Please do not send cash.

To expedite filling your order, use the report number in the lower left corner and the date in the lower right corner of the front cover.

GAO reports are now available on microfiche. If such copies will meet your needs, be sure to specify that you want microfiche copies.