

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 13

A SURVEY OF FORMAL TRAINING PROGRAMS IN DEVELOPMENTAL
DISABILITIES IN POSTSECONDARY SCHOOLS
IN MINNESOTA AND ADJACENT STATES

I. INTRODUCTION

The training and supervision of developmentally disabled individuals requires a staff of persons who have a unique combination of skills. Staff members need to combine strong interpersonal communication skills and an understanding of the causes of developmental disabilities with the latest methods and technology of teaching clients. This paper investigates the availability of training from the postsecondary institutions which have traditionally provided preservice training for professionals and paraprofessionals working with developmentally disabled people. An assessment of personnel and training programs is mandated by the 1978 Developmental Disabilities Assistance and Bill of Rights Act (P.L. 95-602) which states:

The (state) plan (for developmental disabilities) must provide for . . . an assessment of the adequacy of the skill level of professionals and paraprofessionals serving persons with developmental disabilities in the state and the adequacy of the state programs and plans supporting training of such professionals and paraprofessionals in maintaining the quality of services provided to persons with developmental disabilities in the state . . . (42 USC 6009).

This policy analysis paper is the second in a series of three reports on the current status of training opportunities for paraprofessionals and professionals working with the developmentally disabled, and the training needs of these individuals.

The first paper (*Policy Analysis Paper No. 12*) focused on nonformal training. This paper will report the results of a survey of formal training programs in postsecondary institutions. The third paper (*Policy Analysis Paper No. 14*) will present the findings of a study of the perceived training needs of administrators and line staff in community residential facilities and developmental achievement centers.

II. REVIEW OF LITERATURE

The quality of care provided to the most severely handicapped population is partially a function of the formal training programs provided

by institutions of higher education. Perske and Smith (1977) made five observations:

- The supply of competent professionals is much smaller than the current demand.
- Although training institutions are beginning to produce personnel to work with severely handicapped people, many training programs are themselves in the process of evolving.
- Programs run the risk of becoming hollow in content, lacking in systematic procedures, and ultimately unproductive if trainees are hired who are not completely competent.
- Personnel must possess the skills necessary to ensure that severely and profoundly handicapped individuals reach their full educational potential and that their progress is documented.
- The highest standards must be maintained for institutions of higher education and those who are trained in them in order to prevent a loss of faith in the educational enterprise of serving the most severely handicapped clients.

Many facilities for developmentally disabled persons have primarily emphasized the staff's skills in personally interacting with clients and reinforcing client learning.

The ability to enhance an individual's self-worth is a unique personality trait and a difficult one to learn in a scholastic setting. Tjosvold and Tjosvold (1981) wrote, "A person can learn skills and maturity through experience that cannot be learned otherwise" (p. 147). They described the required skills as the ability "to analyze situations, and determine the discrepancy between the actual and the desired state of affairs. Once the problem is identified, they must generate solutions and devise activities and experiences so that the actual approaches the desired" (p. 5).

As the field of developmental disabilities receives more attention and clients are provided with the opportunity to become more involved in the community, a concerned and committed staff may not be sufficient. It is also critical that staff members possess a basic body of knowledge concerning the causes and effects of disabilities and the training and motivation of clients. This body of knowledge has been greatly expanded by recently published information; a knowledge base that was considered adequate a decade ago may not currently provide staff with skills they need to be effective. It is likely that this body of knowledge will continue to expand in the future.

Formal training programs must be charged with several responsibilities including:

a network of collaborative interfaces and relationships, judicious recruitment of trainees, the development and implementation of a well-rounded, competency-based curriculum, and continuing responsibility to the practitioner in the field. (Perske & Smith, 1977, p. iii)

Provision of services in any human service field depends upon the local agencies' resources (input), the coordination of these resources (throughput), and the effective delivery of services to the clients (output). Miringoff (1980) defined the basic input resources as either maintenance or service. Maintenance resources are those essential items that provide the structure within which the services are provided, e.g., building, equipment, managerial, and support staff. Service resources are "derived from the existence and availability of a specific type of expertise designed to alleviate the given social problem with which the organization deals" (p. 19).

In the developmental disabilities field, as in other human service fields, the literature reflects an awareness of the distinction between the "state of the art" technology and the possession of that knowledge by individual practitioners in the field. Individual expertise is the combination of experiential and academic knowledge that has been acquired over time.

Nationally, professional course work at postsecondary educational institutions usually includes the causes and origins of developmental disabilities; the effects of the social environment in causing cultural familial retardation (Ziegler, 1978); testing and assessment; the effects of mental retardation on specific perceptual skills such as visual tracking (Thorson & Lipscomb, 1982); methods for teaching tasks to improve skills such as spelling (Neef, 1980) and work skills (Gold, 1982); Bellamy, 1979); and recreation and leisure (Wehman, 1980); the methods of generalizing skills to future situations and problems (Adkins, 1980; Curo, 1980; Fox, 1980; & Weisz, 1981); behavior management approaches (Watson, 1978; Sulzer-Azroff & Mayer, 1977; Martin & Pear, 1978; Morrel, 1979; Ferrara, 1979; Kastner, 1979); methods for teaching sexuality education (Fischer, 1973; Kempton, Bass, & Gordon, 1973; & Perske, 1973).

At a paraprofessional level, the topics of study are similar. Programs generally include introductory courses on disabilities and direct field experiences.

III. METHODOLOGY

The methodology of this paper consisted of a survey of the formal training programs in postsecondary schools for persons who work with developmentally disabled individuals. The primary geographic focus of the

survey was the state of Minnesota. The survey covered all postsecondary training and educational institutions in the state, including a total of 89 schools: 33 area vocational technical institutes (AVTIs), 19 community colleges (CC), 8 Bible colleges, and 29 four-year colleges and universities. In addition, 8 selected institutions in three neighboring states (Wisconsin, North Dakota, and South Dakota) were included on the basis of their proximity to Minnesota. (See Table 1 for a complete listing of the educational institutions included in the survey.) Course bulletins from these institutions were examined for credit courses with content in developmental disabilities. Content was broadly defined as the inclusion of some information on developmental disabilities which would be useful to individuals training to work with developmentally disabled persons as paraprofessionals or professionals. The programs examined included those in educational, social service, and health related fields. The review was compiled during two periods. First, there was a complete analysis during summer, 1981. This was followed in summer, 1982, by a brief survey designed to update and reveal major changes in the more active programs.

It was beyond the scope of this paper to examine the quality or quantity of the material presented in these classes. Further, there was no attempt to evaluate the effectiveness of the instructors or the teaching materials. For the purposes of this study, all courses are included regardless of comparability of content.

Table 1
 Minnesota Postsecondary Education Institutions by Regions

Region	Programs with Developmental Disabilities Content	Programs without Developmental Disabilities Content
One	Northland Community College	East Grand Forks Area Vocational Technical Institute Thief River Falls Area Vocational Technical Institute University of Minnesota-- Crookston
Two	Bemidji State University	Bemidji Area Vocational Technical Institute
Three	Hibbing Community College Duluth Area Vocational Technical Institute Itasca Community College Vermilion Community College St. Scholastica University of Minnesota-- Duluth	Eveleth Area Vocational Technical Institute Hibbing Area Vocational Technical Institute Mesabi Community College Rainy River Community College
Four	Fergus Falls Community College Concordia, Moorhead Moorhead State University University of Minnesota-- Morris	Detroit Lakes Area Vocational Technical Institute Moorhead Area Vocational Technical Institute Alexandria Area Vocational Technical Institute
Five	Brainerd Community College	Brainerd Area Vocational Technical Institute Staples Area Vocational Technical Institute Wadena Area Vocational Technical Institute
Six	Hutchinson Area Vocational Technical Institute Willmar Area Vocational Technical Institute Willmar Community College	Canby Area Vocational Technical Institute Granite Falls Area Vocational Technical Institute
Seven	St. Cloud Area Vocational Technical Institute St. Benedict College St. John's College St. Cloud State University	Pine Area Vocational Technical Institute

Table 1 (Continued)

Region	Programs with Developmental Disabilities Content	Programs without Developmental Disabilities Content
Eight	Worthington Community College Southwest State University	Jackson Area Vocational Technical Institute Pipestone Area Vocational Technical Institute
Nine	Mankato Area Vocational Technical Institute Gustavus Adolphus College Mankato State University University of Minnesota-- Waseca	Bethany Lutheran College Dr. Martin Luther King College
Ten	Rochester Area Vocational Technical Institute Austin Community College Rochester Community College Carleton College St. Mary's, Winona St. Olaf College St. Teresa College Winona State University Pillsbury Baptist College	Albert Lea Area Vocational Technical Institute Austin Area Vocational Technical Institute Faribault Area Vocational Technical Institute Winona Area Vocational Technical Institute Red Wing Area Vocational Technical Institute
Eleven	Anoka Area Vocational Technical Institute Hennepin Technical Centers Minneapolis Technical Institute 916 Area Vocational Technical Institute St. Paul Area Vocational Technical Institute Anoka-Ramsey Community College Inver Hills Community College Lakewood Community College Minneapolis Community College St. Mary's Junior College Augsburg College Bethel College Concordia, St. Paul Hamline University Macalester College College of St. Catherine College of St. Thomas Metropolitan State University	Dakota County Area Vocational Technical Institute Normandale Community College North Hennepin Community College Minneapolis College of Art and Design Golden Valley Lutheran College

Table 1 (Continued)

Region	Programs with Developmental Disabilities Content	Programs without Developmental Disabilities Content
Eleven (Cont.)	University of Minnesota-- Minneapolis North Central Bible College Northwestern College St. Paul Bible College	
Wisconsin	University of Wisconsin-- Eau Claire University of Wisconsin-- LaCrosse University of Wisconsin-- Stout University of Wisconsin-- River Falls University of Wisconsin-- Superior	
North Dakota	North Dakota State University, Fargo University of North Dakota, Grand Forks	
South Dakota	South Dakota State University, Brookings	

IV. RESULTS

This section will include: (1) an overview of the statewide and regional distribution of educational institutions with developmental disabilities coursework; (2) an analysis of trends in the amount and type of developmental disabilities coursework offered; and (3) an analysis of the relationship between the availability of four-year college and university programs in a region and the employment of degreed staff members in developmental achievement centers (DACs) in that region.

A. Statewide and Regional Distribution of Educational Institutions Developmental Disabilities Coursework

In 57 of the 89 (64%) Minnesota postsecondary institutions included in this survey, there are courses on developmental disabilities or courses that include content on developmental disabilities.

Every region in the state has an institution that provides some coursework with developmental disabilities content (see Table 1).

Three regions in north and northcentral Minnesota (Regions One, Two, and Five) have only one school available for persons interested in developmental disabilities courses. Other regions (excluding metropolitan areas) have between two and four educational institutions (Regions Four, Six, Seven, Eight, and Nine) with such coursework. The two regions that are subdivided (Regions Six and Seven) have all of the programs in one subdivision (Six E and Seven W) and none in the other sections (Six W and Seven E).

The majority of the institutions with developmental disabilities courses are located in the large urban areas (Table 2). Thirty-nine percent (N = 22) of the institutions are in Region Eleven, which encompasses the Twin Cities. The southeastern corner of the state, Region Ten, including Rochester, has nine (16% of the total). The northeastern section, Region Three, including Duluth, has six programs (11%). These three geographical areas have 37 of the 57 (65%) educational facilities with developmental disabilities courses in the state.

Table 2
 Educational Institutions with Developmental
 Disabilities Course Content
 (Minnesota Training Institutions, 1982; 100% Reporting)

Region	AVTI	Bible Colleges	Community Colleges ^a	Four-Year Colleges	Total
One	0	0	1	0	1
Two	0	0	0	1	1
Three	1	0	3	2	6
Four	0	0	1	3	4
Five	0	0	1	0	1
Six	2	0	1	0	3 ^b
Seven	1	0	0	3 ^c	4 ^d
Eight	0	0	1	1	2
Nine	1	0	0	2	4
Ten	1	1	2	5	9
Eleven	<u>5</u>	<u>3</u>	<u>5</u>	<u>9^e</u>	<u>22</u>
STATE TOTAL	11	4	15	27	57

^aIncludes St. Mary's Junior College and University of Minnesota, Waseca.

^bAll programs are located in Region Six E.

^cSt. Benedict's and St. John's universities are recorded individually.

^dAll programs are located in Region Seven W.

^eSt. Catherine's and St. Thomas universities are recorded individually.

All eight of the educational institutions located in neighboring states which were included in the survey offer coursework with developmental disabilities content. Five of these institutions are part of the University of Wisconsin system. Two of these (Eau Claire and Stout) border Region Eleven, two border Region Ten (LaCrosse and River Falls), and one is across from Region Three (Superior). North Dakota's two schools near the Minnesota are adjacent to Region One (Grand Forks) and Region Four (Fargo); South Dakota's (Brookings) is across from Region Eight.

B. Trends in the Amount and Type of Developmental Disabilities Coursework Offered

The developmental disabilities coursework offered in Minnesota's postsecondary educational institutions ranges from a section of a single course which addresses some aspect of developmental disabilities to several graduate level programs focused entirely on training professionals to work in the developmental disabilities field. This survey found coursework with developmental disabilities content in a broad range of academic disciplines, including education, special education, vocational education, health education, physical education and recreation, social work, psychology, public health, home economics, and therapy (art, music, physical, occupational, and speech), as well as in training programs for paraprofessionals in various human service fields.

While the number of educational institutions which offer some coursework with developmental disabilities content is impressive, this number must be treated with caution. The distribution of formal training resources for paraprofessionals and professionals in the developmental disabilities field reflects in many ways the overall distribution of educational resources in the state. Many of the institutions listed as offering coursework offer a very small number of courses; the vast majority of developmental disabilities coursework is concentrated in a relatively small number of educational institutions, including the University of Minnesota (Twin Cities and Duluth campuses), five state universities (Bemidji, Mankato, Moorhead, St. Cloud, and Winona), and a few private, four-year liberal arts colleges (St. Teresa and St. Scholastica). (See Table 3 for a listing of degree programs in developmental disability related fields).

Some general observations can be made about the amount and type of developmental disabilities coursework offered by each category of educational institutions. Courses on developmental disabilities or programs for this training are more likely to be found in schools with a liberal arts program. Of the 27 four-year colleges and universities, 26 (96%) provide developmental disabilities training. The Minneapolis College of Art and Design is the only school in this category not offering developmental disabilities course content. The majority, 16 of the 21 two-year colleges (76%), provide

developmental disabilities training opportunities. Half of the Bible colleges (4 of 8) offer such courses, and only one-third (11 of 33) of the area vocational technical institute programs offer developmental disabilities coursework.

The majority of area vocational technical institutes (AVTIs) offer only one program with such coursework. Most frequently, this program is a child development assistant program; a few AVTIs offer human services technician and occupational therapy assistant programs. Most of these AVTI programs take approximately 9 to 10 months to complete. In a few cases, the program sequence consists of attendance at the AVTI followed by program completion at a co-operating community college.

About half (7 of 16) of the two-year colleges with developmental disabilities coursework offer only one program with such content; the remainder offer two or three programs. The largest number of two-year college programs are for child development assistants, educational aides, and human service technicians. A few two-year colleges offer training programs for assistants in therapeutic recreation, occupational therapy, and physical therapy.

The Bible colleges which offer developmental disabilities coursework have a few courses which cover teaching techniques for mentally retarded or hearing impaired individuals.

Of the 16 private, four-year colleges with developmental disabilities coursework, 5 offer only one or two courses, and an additional 6 offer six or less courses. Relatively few private colleges offer bachelor's degrees in developmental disabilities related fields. Several of these colleges do offer developmental disabilities content as an area of specialization within a more general major; for example, special education will be a focus for an elementary education major, or adapted physical education for a physical education major.

Private, four-year colleges with developmental disabilities courses are most likely to offer them in special education, adapted physical education and recreation, therapy, and psychology. Ten colleges in this category offer special education courses; Concordia--St. Paul, St. Mary's--Winona, and St. Teresa's offer bachelor's degrees with special education concentrations. Seven colleges offer adapted physical education/recreation courses; at Augsburg, areas of specialization in a physical education major are adapted physical education (P.E.) and corrective therapy. Six colleges offer coursework in speech therapy. St. Teresa's has a B.A. degree program in speech therapy, and majors with therapy emphasis in art, music, and dance. St. Catherine and St. Thomas offer B.A. degrees in occupational therapy, and St. Scholastica in physical therapy. Seven colleges offer coursework on mental retardation through their psychology departments. Five private colleges also have general coursework on disabilities in their home economics departments.

Table 3
 Degree Programs in Developmental Disability
 Related Fields by Region

Region	Associate of Arts (A.A.) Degree ^a	Bachelor of Arts/Science (B.A./B.S.) Degree ^b	Graduate Degree (M.A., M.S., M.Ed., Ph.D.) ^c
One	Northland Community College		
Two		Bemidji State University	Bemidji State University
Three	Hibbing Community College Vermillion Community College	St. Scholastica University of Minnesota, Duluth	University of Minnesota, Duluth
Four		Moorhead State University	Moorhead State University
Five	Brainerd Community College		
Six	Willmar Community College		
Seven		St. Benedict St. John's St. Cloud State University	St. Cloud State University
Eight	Worthington Community College	Southwest State University	
Nine	University of Minnesota, Waseca	Mankato State University	Mankato State University
Ten	Austin Community College Rochester Community College	St. Mary's, Winona St. Teresa's Winona State University	Winona State University

Table 3 (Continued)

Region	Associate of Arts (A.A.) Degree ^a	Bachelor of Arts/Science (B.A./B.S.) Degree ^b	Graduate Degree (M.A., M.S., M.Ed., Ph.D.) ^c
Eleven	Anoka-Ramsey Community College	Augsburg	University of Minnesota, Twin Cities
	Inver Hills Community College	Concordia, St. Paul	
	Lakewood Community College	St. Catherine's	
	Minneapolis Community College	St. Thomas	
	St. Mary's Junior College	University of Minnesota, Twin Cities	
	University of Minnesota, Twin Cities (general college)		

^a Includes degree programs for child development assistants, educational aides, human services technicians, occupational therapy assistants, and therapeutic recreation assistants.

^b Includes degree programs, areas of specialization within degree programs, and licensure programs for special education; physical, occupational, art, music, dance, and speech therapy; adapted physical education and/or recreation; and vocational rehabilitation.

^c Includes degree programs, areas of specialization within degree programs, and licensure programs for special education, physical and speech therapy, adapted physical education and/or education, public health, and rehabilitation counseling.

All of the state universities offer some developmental disabilities coursework on the undergraduate level. In addition, all five state universities which have graduate level work offer some developmental disabilities courses on that level. The state university system's offerings are concentrated in the fields of special education, speech therapy, and adapted physical education and recreation.

Metropolitan State University does not have traditional majors but grants bachelor's degrees on the basis of "competencies." The developmental disabilities coursework offered at Metro includes general human services courses on topics like "Community Services for the Mentally Retarded" and "Rehabilitation of the Physically and Mentally Disabled"; the university also offers internships at residential facilities and DACs. Southwest State University offers a few courses in special education, speech therapy, adapted physical education, and health education.

The remaining five state universities--Bemidji, Mankato, Moorhead, St. Cloud, and Winona--all offer coursework in special education and speech therapy. Four of the five offer developmental disabilities coursework in psychology and in adapted physical education and/or therapeutic recreation; three offer vocational rehabilitation/rehabilitation counseling and music therapy courses; and two offer art therapy.

The special education course offerings at these state universities are extensive. On the undergraduate and graduate level, programs for licensure in several areas of special education are available in conjunction with majors in special education, minors, and specializations within elementary and/or secondary education majors. Teaching educable and trainable mentally retarded persons (EMR and TMR) and special learning disabilities are the most commonly offered special education concentrations. In addition, majors/minors/specializations are offered in teaching the severely handicapped (Mankato), emotionally disturbed (Mankato, Moorhead, and Winona), behavior problems (Moorhead), orthopedically handicapped (St. Cloud), and in early childhood education (Mankato, St. Cloud, and Winona).

The University of Minnesota's two-year colleges at Crookston and Waseca were included in the earlier discussion of two-year and community colleges. The Morris campus offers one course with developmental disabilities content. The University of Minnesota, Duluth offers undergraduate courses in special education, speech therapy, adapted physical education, and home economics, and graduate coursework in special education and speech therapy. Bachelor's degrees are available in adapted physical education, speech therapy, and special education, and master's degrees in speech therapy and special education.

A full range of developmental disabilities coursework is offered

at the University of Minnesota, Twin Cities campus. Developmental disabilities coursework is offered in undergraduate, graduate, and extension programs in special education, therapy (occupational, physical, art, speech, music, and dance), psychology, social work, vocational education, home economics, public health, and physical education. Undergraduate degrees are offered in music, occupational, physical, and speech therapy; adapted physical education is a specialization in P.E. Graduate degrees are offered in physical and speech therapy; special education is an area of concentration in educational psychology master's and doctoral programs, and "Chronic Illness and Handicapping Conditions of Children" is a concentration in the master's in public health program.

Special education coursework at the Twin Cities campus of the University of Minnesota covers infants, preschoolers, and elementary and secondary school students with a range of disabilities including mental retardation, physical handicaps, visual and hearing impairments, behavior problems, emotional disturbances, and learning disabilities.

Licensure programs in educational psychology include: learning disabilities, behavior problems, and teaching seriously emotionally disturbed, educable mentally retarded, physically handicapped, severely and profoundly retarded, and children with severe hearing impairments.

C. Relationship between Training Programs and Employment of Degreed Staff

Residential facilities (ICF-MRs) and developmental achievement centers (DACs) are two community services which are available to developmentally disabled people in every region of the state. Table 4 shows the number and capacity of these facilities in the entire state and by region. (For further information on Minnesota ICF-MR and DAC facilities, see *Policy Analysis Papers No. 2, 4, 6, 7, 8, 9, and 11.*) As Table 4 indicates, ICF-MR and DAC facilities are distributed throughout the state. Many of the larger facilities are located in the metropolitan areas. Table 4 also includes summary information on the regional distribution of educational institutions with developmental disabilities coursework.

Some facilities require that their employees complete a bachelor of arts or science degree as a minimum level of competence. A previous policy analysis paper found a wide range of bachelor's employment levels in DACs (*Policy Analysis Paper No. 7, p. 9*). Region Eight reported the lowest proportion of professionals with bachelor's degrees (21.4%), while Region Eleven had three and a half times as many bachelor's employees (73.5%). A comparison between the frequency of degreed professional staff employed at DACs in a regional and the number of college programs available in the region shows a direct relationship. In areas with one or no training

Table 4
 Residential Facilities, Developmental Achievement Centers,
 and Educational Institutions with Developmental
 Disabilities Coursework by Region

REGION	RESIDENTIAL FACILITIES		DEVELOPMENTAL ACHIEVEMENT CENTERS		EDUCATIONAL INSTITUTIONS WITH DEVELOPMENTAL DISABILITIES COURSEWORK
	Number of Facilities	Total Capacity of Facilities	Number of Facilities	Total Capacity of Facilities	
One	11 (4%)	135 (3%)	6 (6%)	207 (4%)	1 (2%)
Two	6 (2%)	70 (1%)	4 (4%)	145 (3%)	1 (2%)
Three	31 (10%)	357 (8%)	10 (9%)	600 (11%)	6 (10%)
Four	21 (7%)	221 (5%)	7 (7%)	276 (5%)	4 (7%)
Five	7 (2%)	58 (1%)	6 (6%)	217 (4%)	1 (2%)
Six	25 (8%)	293 (6%)	9 (8%)	393 (7%)	3 (5%)
Seven	17 (6%)	340 (7%)	8 (8%)	496 (9%)	4 (7%)
Eight	13 (4%)	305 (6%)	8 (8%)	337 (6%)	2 (3%)
Nine	19 (6%)	238 (5%)	8 (8%)	302 (5%)	4 (7%)
Ten	35 (12%)	562 (12%)	13 (12%)	636 (11%)	9 (16%)
Eleven	<u>119 (39%)</u>	<u>2,214 (46%)</u>	<u>27 (25%)</u>	<u>1,975 (35%)</u>	<u>22 (39%)</u>
STATE TOTAL	304 (100%)	4,793 (100%)	106 (100%)	5,584 (100%)	57 (100%)

SOURCES: Minnesota Department of Public Welfare, Mental Retardation Program Division

Developmental Disabilities Program, *Policy Analysis Paper No. 6: The Financial Status of Minnesota Developmental Achievement Centers: 1980-1982.*

programs, 40% or less of the staff had a four-year degree. Areas with two or more colleges tended to have more than 40% of their staff with B.S. or B.A. degrees. The single exception to this finding was Region Seven where St. Cloud State University, St. John's, and St. Benedict's colleges are located.

V. SUMMARY AND IMPLICATIONS

This survey of coursework from Minnesota's postsecondary educational institutions was undertaken in order to assess the availability of training programs for paraprofessionals and professionals to work with developmentally disabled people. Course bulletins from 89 educational institutions were examined for credit courses with developmental disabilities content.

The major findings of the survey are as follows:

- The majority (57 of 89, or 64%) of educational institutions offer some coursework with developmental disabilities content.
- Every region in the state has at least one institution offering coursework.
- Sixty-five percent (65%) of the educational institutions with developmental disabilities coursework are located in Regions Three, Ten, and Eleven.
- Coursework with developmental disabilities content is offered in a broad range of academic disciplines as well as in paraprofessional training programs.
- Many of the institutions with coursework offer a very small number of courses; the majority of courses are concentrated in a relatively small number of educational institutions.
- One-third (11 of 33) of the area vocational technical institutes offer developmental disabilities courses, primarily in child development assistant, human services technician, and occupational therapy assistant programs.
- Three-fourths (16 of 21) of the two-year colleges offer developmental disabilities coursework in training programs for child development assistants, educational aides, human services technicians, and assistants in therapeutic recreation and occupational and physical therapy.
- One-half (4 of 8) of the Bible colleges have coursework which covers teaching mentally retarded or hearing impaired individuals.

- Nearly all (16 of 17) private, four-year colleges offer developmental disabilities coursework. Courses are offered most frequently in special education, adapted physical education and recreation, therapy, and psychology. Relatively few private colleges offer bachelor's degrees in developmental disabilities related fields, but specializations within more general degrees are common.
- All 7 of the state universities offer some developmental disabilities coursework on the undergraduate level; 5 of the 7 also offer graduate level work. Coursework is concentrated in the fields of special education, speech therapy, and adapted physical education and recreation. The special education course offerings are extensive, with licensure offered in several special education concentrations.
- The 3 four-year branches of the University of Minnesota at Morris, Duluth, and the Twin Cities all offer developmental disabilities coursework. One course is offered at Morris; Duluth has undergraduate and graduate courses in special education, speech therapy, adapted physical education, and home economics. The Twin Cities campus offers undergraduate and graduate coursework in a wide range of academic disciplines, including special education, therapy (art, physical, occupational, speech, music, and dance), psychology, social work, vocational education, public health, home economics, and physical education. A comprehensive array of special education courses are available, and licensure is offered in several special education concentrations.
- On a regional basis, there is a positive relationship between the percentage of DAC staff with bachelor's degrees and the number of colleges and universities with developmental disabilities courses.

As noted previously, this survey of coursework from Minnesota's postsecondary institutions does have some limitations. We did not attempt to judge the quality of the training provided in these institutions, nor did we obtain data on the actual number of students attending and graduating from these programs. The survey did, however, provide substantial data on educational resources for developmental disabilities training. This data suggests that there are a few areas where changes in the educational system might be in order.

These possible changes fall into two categories: changes in the statewide distribution of educational resources, and changes in the type of coursework that is offered by individual institutions and in the system as a whole. To a large extent, the distribution of developmental disabilities training programs reflects the general distribution of educational resources in the state. Thus, the relative scarcity of training

opportunities in some regions is a difficult problem to tackle. However, given that every region of the state has at least one institution which offers developmental disabilities coursework, a possible strategy may be to maximize the resources available in these facilities.

Changes in the type of coursework offered appear to be needed in at least three areas. First, the majority of courses in this survey focused on the growth and development of the developmentally disabled child. There appeared to be very few courses which addressed the unique needs of developmentally disabled adults. Adult participation in age appropriate activities is an essential component of normalization. This lack of coursework focused on adults has serious implications for the ability of professionals and paraprofessionals to succeed in encouraging age appropriate activities.

Second, there appeared to be very little coursework which specifically addressed the needs of severely and profoundly handicapped individuals. As more severely disabled persons leave state institutions for community living facilities, the training technology required by DAC and ICF-MR staff will change. Institutions of higher education will need to increase their resources and knowledge base in these areas.

Third, coursework dealing with nonmentally retarded developmentally disabled persons appeared to be almost nonexistent. While the majority of developmentally disabled people are mentally retarded, substantial numbers do have other disabilities about which professionals and paraprofessionals need to obtain knowledge.

The Minnesota Higher Education Coordinating Board's recent projections on the growth of public postsecondary schools indicate that the entire system is expected to experience an aggregate decline in enrollment over the next 15 years. Perhaps this enrollment decline will mean that postsecondary schools, anxious for new markets of students, may be willing to adapt curricula to the needs of the developmental disabilities service system.

The ability of a facility for developmentally disabled persons to attract and maintain qualified and competent staff is affected by several factors. The facility's ability to pay commensurate wages and to compete with other organizations such as schools and state hospitals, etc., for qualified personnel are important factors, as is the individual professional or paraprofessional's willingness to work in certain areas of the state.

Clearly, however, the availability of postsecondary educational resources remains a major factor in the preparation of qualified staff to work with developmentally disabled persons. Individual workers require relevant coursework in theory, methods, and practical applications of research findings. Postsecondary educational facilities have been at the forefront of teaching and research issues that affect the knowledge base for teaching the developmentally disabled population. This survey suggests

that postsecondary institutions could enhance their ability to achieve their training mission by making some resource distribution and curriculum changes.

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