

## **Accessibility: Students with Disabilities<sup>†</sup> in Universities in Canada**

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### **Abstract**

*Data indicate that the number of students with disabling conditions in postsecondary institutions is increasing. The efforts made by universities across Canada were examined to ensure that special needs students are able to access higher education programs. Services offered by the Office for Students with Disabilities at 27 Canadian universities were investigated. Physical accessibility for students with a wide range of handicapping conditions also was explored.*

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### **Résumé**

*Les données indiquent que le nombre d'étudiants handicapés dans les institutions postsecondaires en la hausse. La présente étude examine les efforts des universités canadiennes pour assurer aux étudiants souffrant d'handicaps physiques l'accès aux programmes universitaires. Les services offerts par l'Office des Etudiants handicapés dans 27 universités canadiennes sont étudiés. Les conditions d'accessibilité dans les bâtiments et sur les campus offert aux étudiants atteints de divers handicaps est également exploré.*

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† The term "students with disabilities" is used to refer to individuals with either physical and/or learning impairments, including, but not limited to, persons with visual, hearing, orthopedic/physical, speech and specific learning disabilities. Also included are persons with chronic health problems and individuals who are mentally ill. The terms "students with disabling conditions", "students with handicapping conditions", and "students with special needs" are used synonymously. The terms "the disabled", "the blind", "the deaf" will not be used, as it is the opinion of the author that the person should be viewed as an individual first — an individual who happens to have a disability.

## Introduction

The number of Canadian students with disabling conditions, who attend postsecondary institutions of higher education after completion of high school, has increased dramatically over the past 10 to 15 years. Even though the enrolment of students with disabilities has increased, it has been reported that students with special needs are significantly under-represented in such institutions (Council of Ministers of Education, Canada [CMEC], 1987). The reasons for the under-representation of students with disabling conditions at Canadian universities have not been determined; however, in order for a student with special needs to pursue successfully a program of higher education, two basic obstacles must be overcome: (a) specialized services must be provided in order to maximize the student's ability to participate fully in the chosen course of studies, and (b) the campus must be physically accessible (i.e., the grounds and buildings must be barrier-free).

The needs of students with disabilities vary, depending on the type of disabling condition, the severity of the condition and, in some cases, the length of time that the student has had the condition (Hill, 1991). No two students, even if they have the same disability, have the same needs. The services they require differ widely, and can range from requiring specialized equipment and materials, such as brailled books for the student with a visual impairment, to requiring extra time to complete an assignment or an examination, as in the case of a student with a motoric handicap. Similarly the physical barriers differ, depending upon the type of disability of the student. Students who use a wheelchair as a means of locomotion require ramps to gain access to buildings, and elevators to move from floor to floor, whereas a student with a visual impairment may require braille labels on doorways to indicate room numbers and audible elevator signals to assist in locating a specific destination.

The purpose of the present article is to examine the level of accessibility for students with disabling conditions in universities across Canada, in order to identify specific problematic areas that might prevent students from pursuing a course of advanced studies. Specifically, in the present study, the availability of services required to meet a student's unique learning needs and the physical barriers present at universities in Canada that might impede a student from being able physically to gain access to programs of higher education are examined.

### Enrolment Trends

A limited number of studies have documented the increased enrolment of students with disabilities in universities in Canada and the United States.

Wilchesky (1986) stated that the number of students with a "self-identified handicap" at York University in Ontario rose from 19 in 1977 to 114 in 1984. Fichten (1988), citing enrolment statistics at Dawson College in the Province of Québec, reported an increase from 24 students in 1984 to 50 students in 1987; and the most recent study, conducted in the Province of Québec (Tousignant, 1989) found that the number of students with special needs enrolled in university programs throughout the province rose from 174 in 1980-1981 to 224 in 1988-1989. The Canadian statistics regarding increased enrolment of students with disabling conditions appear to be similar to those reported in the United States, where the number of individuals with disabilities and who are attending postsecondary institutions has shown a steady increase over the past 15-20 years. In fact, the rise in number has been described as "meteoric" (Wilchesky, 1986). Estimates of the number of college freshmen, self-identified as being physically impaired, rose from 2.9 percent in 1979 to 7.3 percent in 1984, an increase of approximately 150 percent (Wilchesky, 1986). However, to date, there has been no attempt to document the number of students with disabilities in relationship to the total enrolment of non-disabled students in universities, either in Canada or in the United States.

Many reasons have been given for the influx of students with disabilities and attending postsecondary institutions. Wilchesky, a Canadian, suggested that there were four principal reasons for the increased enrolment of students with disabling conditions in the United States (1986): (a) pressure from self-help and advocacy groups to accept, and accommodate special needs students; (b) projected decreased enrolment due to declining birth rate, which resulted in the search for "non-traditional" students<sup>1</sup>; (c) awareness of the broadening "social mission" of universities to provide more opportunities for students with handicapping conditions; and (d) passage of two major pieces of legislation that mandated the integration of both children and adults into the "mainstream" of society (i.e., Public Law 94-142, *The Education of all Handicapped Children Act* and Public Law 93-112, *the Rehabilitation Act*, Section 504). In addition, Perry (1981) proposed that advances in medical technology and rehabilitation engineering have resulted in increased opportunities for those with a disability (e.g., allowing for greater independence); and Penn and Dudley (1980) suggested that regulations relating to minimizing architectural barriers have resulted in more campus buildings becoming accessible to persons with a physical impairment.

In discussing two pieces of legislation in Canada, Ontario's Bill 82, *An Act to Amend the Education Act*, proclaimed in 1980, and Section 15 of the Canadian

Charter of Rights and Freedoms as set out in *The Constitution Act of 1982*, enacted in 1985, Wilchesky stated that "there are some early indications that post-secondary institutions in Canada should be preparing for a steady, and perhaps dramatic increase in the numbers of handicapped individuals interested in pursuing higher education" (p. 5). Sergent, Sedlacek, Carter and Scales (1987) pointed out that "the needs of the disabled student on college campuses have become a national concern ... more disabled persons are exercising *their rights* [italics added] to receiving higher education" (p. 3).

### **The Importance of Higher Education for Students with Disabilities**

There are three primary motives for obtaining a postsecondary education, regardless of whether or not the student has a disabling condition. They include: (a) fulfilling personal goals, (b) allowing for effective competition in the job market, and (c) contributing to independence and financial security (Fichten, 1988). According to Fichten, for the student with a disability a "college education is *more important*" (p. 172). Citing previously published research, Fichten indicated that individuals with a disability who graduate from college spend less time seeking employment and are more more likely to be employed than people with disabilities who do not have a degree; and once employed, they are more satisfied with their jobs and remain longer than those who never attended a postsecondary program. Fairweather and Shaver (1990) have suggested that, for the student with a disability, "postsecondary education is the *crucial link* [italics added] between high school and success as an adult" (p. 333).

In Canada, the need for access to educational programs, by those with special needs, has been clearly articulated. The Council of Ministers of Education in the recent document, entitled *Opportunities: Postsecondary Education and Training for Students with Special Needs*, stated:

In view of the correlation between education or training and an individual's employability, members of these groups [i.e., women, Native citizens, the disabled, minority-language groups and educationally disadvantaged adults] must be given every *reasonable opportunity* [italics added] to prepare themselves for full participation in Canadian society. The prospect of continuing restrained labour market and economic conditions and an increasingly high degree of competitiveness for available jobs makes the need for sound education and training all the more pressing (CMEC, 1988, p. 8).

Even though the need for ensuring accessibility to higher education in terms of economic and social benefits for the individual and society has been recognized, many individuals with disabling conditions have not continued their schooling beyond the secondary level. According to the most recent census conducted in 1986, there were approximately 25.3 million individuals living in Canada (Statistics Canada, 1987). In a post-censal survey, *The Health and Activity Limitation Survey* (HALS), conducted by Statistics Canada between 1986 and 1987, it was found that approximately 3.3 million persons (i.e., 13.2 percent of the total population) reported having a physical or psychological disability<sup>2</sup> (Statistics Canada, 1990a). In the 15-64 year age-bracket, there were 1.7 million persons with disabling conditions (10.7 percent of the total population); 68.8 percent of the respondents indicated that they had not pursued any postsecondary education, and only 5.1 percent had obtained one or more university degrees. For the same age-bracket, the 1986 census showed that 57.4 percent of the non-disabled population had completed an elementary-secondary education, and that 11.0 percent had obtained one or more university degrees (Statistics Canada, 1989). It is unknown why there is such a discrepancy; however, availability of support services and accessibility to facilities are undoubtedly two of many factors that may prevent an individual with a disabling condition from pursuing a postsecondary education. Fichten (1988) stated:

Institutions that discourage students who have a disability from applying, that place insurmountable physical and admissions barriers to them, and that do not provide services needed by the students or by the professors who teach them can cause the most damage by communicating to the college community the message that students with a disability are not welcome on campus (p. 181).

### **Ensuring Accessibility**

Students with disabilities require a variety of support services and program modifications to be able to pursue successfully a postsecondary education (Hill, 1991; Marion & Iovacchini, 1983; Michael, Salend, Bennett & Harris, 1988; Sergent *et al.*, 1987). Similarly, they need to be able physically to gain access to the grounds and buildings. The Statement by the CMEC (1987) succinctly outlined the need for such accommodations: "Assistance offered to special students *does not end* [italics added] with entry into a program of study" (p. 24).

The services, generally provided by a Coordinator or Director of Services for Students with Disabilities, need to be "diverse and multifaceted" (Sergent *et al.*, 1987, p. 3) as the students themselves present a wide range of disabling conditions (e.g., learning disabilities, physical impairments, chronic health problems). Services should be designed to minimize policy, social and architectural barriers encountered by students with disabling conditions (Stilwell, Stilwell & Perritt, 1983). In reviewing services to students with special needs, Sergent *et al.* (1987) stated that "current research findings suggest that while higher education institutions have made considerable progress in removing physical barriers [i.e., architectural barriers] for disabled students, fewer changes have occurred in the area of support services [i.e., policy and social barriers]" (p. 4). These findings may be explained by the fact that "architectural barriers are likely more easily changed than attitudinal barriers" (Wilchesky, 1986, p. 6).

Several studies have examined the availability of services to students attending postsecondary institutions in the United States (cf. Marion & Iovacchini, 1983; Sergent *et al.*, 1987), the role of the Coordinator of Services for Students with Disabilities (cf. Michael *et al.*, 1988) and the degree to which institutions have become accessible for students with varying types and degrees of handicaps (cf. Stilwell & Schulker, 1973; Stilwell *et al.*, 1983). However, to date, similar studies have not been undertaken in Canada. It is known that "at many institutions, resource persons have been appointed to provide advisory and consultative services to special students" (CMEC, 1987, p. 24); however, accurate information on the extent and the nature of services for students with handicapping conditions is unknown. Similarly, the extent to which Canadian universities are accessible has not been identified.

### **Purpose of Study**

The enrolment in Canadian universities of students with disabling conditions has increased significantly over the past decade and will most likely continue to increase as more individuals recognize the necessity of obtaining a postsecondary education in order to be competitive in the restrained employment market. In order to accommodate the student with a disability, universities must be responsive to the student's unique learning needs. To accommodate the student, universities must be able to provide services necessary for the student to gain access to programs and to ensure that the facility is barrier-free. The purpose of this study is to examine the degree of accessibility of universities in Canada in an attempt to identify possible areas requiring improvement.

Specifically, the present study will attempt to answer the following research questions:

1. What is the proportion of students with disabilities within the general student population? What types of disabling conditions do students report? Is there a difference in the proportion or types for small and large institutions<sup>3</sup>?
2. What proportion of universities in Canada provide a person (or persons) whose designated job is to offer assistance to students with disabling conditions during their pursuit of a postsecondary education? What is the nature of the position (i.e., full time/part-time)? What type of training does the individual have? Do the proportion, employment status, or training requirements differ for small and large institutions?
3. Have universities developed specific policies regarding students with disabilities (e.g., admissibility of students; modifications to the course of study; criteria for accessing services)? Are there any policy differences between small and large institutions?
4. What is the nature of the services provided and how do students gain access to services? How is the program funded? Are there any differences in nature or funding between small and large institutions?
5. What is the degree of accessibility for students with disabling conditions and to what extent is accessibility affected by type of disabling condition? Does accessibility differ for small and large institutions?

By means of a survey questionnaire, Coordinators of Services for Students with Disabilities across Canada were requested to provide detailed information regarding the nature and extent of services provided at their respective institutions, and the degree to which the institution they represented was accessible. To encourage response from Coordinators, complete anonymity was assured in the covering letter sent with the questionnaire. The intent of the present report is to examine the nature of services provided across Canada by representative institutions (both small and large), not by individual postsecondary facilities; consequently the data obtained are reported without reference to specific institutions and/or specific persons.

Providing detailed information on the nature and extent of services available, and the extent to which universities are accessible for individuals, is important for several reasons (Sergent *et al.*, 1987). Having knowledge about services that are currently available will allow staff at institutions of higher education (a) to

gain insight into the progress made to date across Canada, (b) to evaluate their current programs, and (c) to identify services that need to be implemented to make campuses increasingly accessible. Given the increasing enrolment of students with special needs across Canada, this information is particularly timely.

It should be noted that no attempt was made, in the present study, to examine the nature and extent of services available at community colleges or trade schools in Canada. The focus of the present study is degree-granting universities.

## Method

### Participants

During the 1989-1990 academic year, surveys were mailed to the Coordinators of Services for Students with Disabilities at 46 major universities (anglophone and francophone) that offered a wide variety of programs to a large number of students across Canada. There are 69 public degree-granting institutions in the nation; however, not all universities were surveyed for the following reasons:

1. There are 19 universities that have an enrolment of fewer than 500 students (Statistics Canada, 1990b). Most of these institutions, while degree-granting, only offer a degree in a very specific area (e.g., military college; teachers' college; college of art). Considering the matters of small enrolment (and the probability of limited enrolment of students with disabling conditions) and the specificity of programs (and the possibility of a requirement that the applicant does not have a handicapping condition, as in the case of military colleges), the researcher determined that such institutions would not be representative of universities in general; they consequently were not included in the mailing.
2. Twelve universities are federated with a larger institution. The majority of the federated universities offer a very specific course of study (e.g., theology). Even though federated universities were not included in the survey per se, in each case the "parent" organization was included, if enrolment was over 500 students, and if a wide spectrum of programs were offered.
3. A few universities have multiple campuses. The survey was distributed to the main campus only, unless the satellite campus had more than 500 students, and offered a broad range of programs to the students.

The 46 institutions that met criteria for inclusion in the study were located throughout the country. Every province had at least one university that offered a



wide range of programs to at least 500 or more students. The maximum number of institutions per province was sixteen.

The first mailing resulted in 20 returns (43.5 percent). A second mailing, sent to the Dean of Students at non-respondent universities, resulted in an additional 9 returns, for a total of 29 responses (63.0 percent). Two respondent facilities did not offer a wide spectrum of programs to a student body in excess of 500 students. The data from these institutions were not included in the final analysis.

The final usable sample consisted of 27 universities (58.7 percent). Nine of the ten Canadian provinces were represented in the final sample. Percentage of response by province ranged from 0 percent to 100 percent. Percentage of response was greater than 50 percent in seven of ten provinces. In four provinces, responses were obtained from all of the institutions surveyed (100 percent).

### **Instrumentation**

A three-part questionnaire was developed to examine the range of services offered to students with disabilities at institutions of higher education in Canada. The first section included requests for information regarding the characteristics of the responding university (e.g., total enrolment, enrolment of students with disabilities, admission policy regarding students with disabilities, number of students by disability, sources of funding for programs) and of the Coordinator of Services for Students with Disabilities (e.g., training, experience, status of employment). The second section sought information regarding specific services available to the student from the Office of Services for Students with a Disability (e.g., academic counselling, priority class registration, provision of written/audio-visual information on available services). The final section contained questions about the degree of accessibility of the university for students with varying disabilities (e.g., braille/large print markings on doors for students with a visual impairment, amplification systems for the student with a hearing impairment, parking facilities for the motorically impaired).

The questions included in the survey instrument were developed from a comprehensive review of the literature on services for students with disabling conditions in postsecondary institutions (cf. Marion & Iovacchini, 1983; McGeough, Jungjohan, & Thomas, 1983; Michael *et al.*, 1988; Sergeant *et al.*, 1987; Stilwell & Schulker, 1973; Stilwell *et al.*, 1983; Wilchesky, 1986).

## Results

### Institutional Characteristics

Frequencies and percentages of response were computed for each survey question, for both small and large universities. Small institutions were characterized as having fewer than 10,000 students in attendance, whereas large institutions had in excess of 10,000 students. Small institutions comprised 44.4 percent of the sample ( $n=12$ ), while large institutions comprised 55.6 percent of the total sample ( $n=15$ ). Information on respondent institutions ( $N=27$ ) is presented in Table 1.

Eighty-nine percent of the universities provided both undergraduate and graduate courses. Thirty percent of the universities reported that they had a specific policy regarding admission of students with disabling conditions. The policy, in most cases, dealt not only with admission criteria, but also with regulations regarding the degree to which the university was willing to modify the program for the student (e.g., requirements for the granting of a degree). Several universities (15 percent) stated that the staff was currently attempting to draft a policy for implementation. Criteria for gaining access to services varied widely. Large universities reported requiring specific criteria (e.g., documentation of a disability, physician's report) more often than small universities.

In small universities, the percentage of students with a disability ranged from 0.2 percent to 1.2 percent of the total student enrolment; for large institutions the percentage ranged from a low of .09 percent to a high of 1.0 percent. One small institution did not know if there were any students with special needs in attendance; however, all other institutions, both small and large, reported having a number of students with handicapping conditions as part of their general student population. Overall, more students with disabilities were enrolled in small universities (0.7 percent of the total student population on average) compared to large institutions (0.5 percent).

The number of students by disabling condition is presented in Table 2. In small universities, not all disability groups were represented. In order of decreasing frequency, students with the following types of disabilities were reported: learning disability (reported in 83.3 percent of the small universities), visual impairment (83.3 percent), hearing impairment (75.0 percent), physical impairment (75.0 percent), chronic health problems (58.3 percent), emotional disturbance (41.7 percent), speech and language problems (33.3 percent), and "other" (e.g., drug dependency; head injuries; broken bones) (33.3 percent).

Table 1  
Institutional Characteristics

Institutional Characteristics	Size of Institution	
	Small (n=12)	Large (n=15)
Total Enrollment <sup>a</sup>		
Range	1800-9745	10000-40000
Mean	5162	21503
Enrollment of Students with Disabling Conditions <sup>a</sup>		
Range	11-81	33-300
Mean	39	121
Designated Coordinator of Services (%)		
Yes	66.7	100.0
No	33.3	0.0
Degrees Offered (%)		
Undergraduate Only	25.0	0.0
Undergraduate/Graduate	75.0	100.0
Policy on Admission (%)		
Yes (written policy)	33.3	26.7
No	58.3	73.3
Did not Answer	8.3	0.0
Criteria for Services (%) <sup>b</sup>		
None	67.7	26.7
Any Documentation	8.3	40.0
Physician's Report	0.0	40.0
Criteria for Services (%) <sup>b</sup> (cont.)		
Assessment by Staff	8.3	20.0
Permanency of Disability	0.0	33.3
Self Referral	8.3	0.0
Depends on Service	16.7	6.7

<sup>a</sup> It should be noted that respondents often gave an approximate number for total enrollment (e.g., 5500), but, gave a specific number for the enrollment of students with a handicapping condition (e.g., 29).

<sup>b</sup> Several respondents indicated multiple criteria for service. Percentage totals to more than 100%.

Table 2

Type of Disability: Total Number of Students Served

Type of Disability	<u>Size of Institution</u>			% of Total Population
	Small (n=12)	Large (n=15)	Total (N=27)	
Physical Impairment	107	572	679	30.5
Learning Disability	109	450	559	25.1
Visual Impairment	59	231	290	13.0
Chronic Health Problem	55	193	248	11.2
Hearing Impairment	66	179	245	11.0
Other (e.g., drug abuse; broken bones)	21	84	105	4.7
Emotional Disturbance	12	39	51	2.3
Speech/Language Problem	12	15	27	1.2
Unknown	19	0	19	1.0
<b>Total</b>	<b>460</b>	<b>1763</b>	<b>2223</b>	<b>100.0%</b>

Note: Rank ordered by number of students served in small and large universities combined.

Students with a visual, hearing or physical impairment were found at all large institutions. Students with chronic health impairments or with a learning disability were reported in 80.0 percent of the universities; with emotional problems in 33.3 percent; and with speech and language problems in 20.0 percent of the facilities. Students with “other” conditions were reported in 40.0 percent of the postsecondary institutions.

Overall, students with physical impairments, learning disabilities, visual impairments, chronic health problems and hearing impairments far outnumbered students with emotional disturbance, speech and language problems and “other” or “unknown” conditions.

All large universities had a person or persons in charge of providing services for the disabled; however, only eight of the twelve smaller universities (66.7 percent) had a designated person. In the institutions that did not have a specific person, an administrative staff member (usually located in the Dean of Students’

Office or the Student Health Service Department) provided service upon request (i.e., on a limited part-time basis). Information regarding the Coordinators of Services for Students with Disabilities is presented in Table 3.

A coordinator of services for students with disabilities can be characterized as being employed on a full-time basis, having a limited degree of training specifically in the area of working with students with handicapping conditions, and having fewer than five years experience. In small universities, the

Table 3

Information regarding Coordinator of Services for Students with Disabilities

Coordinator of Services	Size of Institution	
	Small (n=8)	Large (n=15)
<u>Type of Position (%)</u>		
Full-time	50.0	66.7
More than 1/2 time	12.5	13.3
Less than 1/2 time	37.5	20.0
<u>Training (%)<sup>a</sup></u>		
No Formal Training	41.7	46.7
Related Training	16.7	46.7
Formal Coursework	8.3	26.6
Did not Answer	25.0	13.3
Person has a Disability	8.3	13.3
<u>Years Experience</u>		
Mean	3.5	4.8
Standard Deviation	3.2	3.4
<u>Funding of Position/Program (%)</u>		
University Operating Budget	25.0	40.0
Provincial Grant	41.7	26.7
Combination of Above	0.0	33.3
No Designated Funding	33.3	0.0

Note: Information based on designated positions (N=23).

<sup>a</sup> Several respondents indicated more than one type of training. Percentage totals to more than 100%.

coordinator most often worked alone; however, in large universities, over 60.0 percent of the offices had additional staff. The number of staff involved in

providing programs ranged from one additional person to a maximum of 5.2 additional persons (e.g., secretary, learning disability specialist, interpreter). The number of additional staff was directly related to the number of students enrolled at the university. The average caseload size was 65 students per service provider. Generally the position(s) and program(s) were funded by monies available from the general university operating budget and/or a provincial grant.

At all institutions, regardless of size, the facilities used by staff providing services for students with disabilities were most often located in the Student Union Building or in an Administration Building. Thirteen percent of the offices were not accessible to students with mobility impairments.

The respondents were asked to describe their primary role as Coordinator of Services for Students with Disabilities. The most common responses, in rank order, were: manager/coordinator/provider of services (reported by 51.8 percent of the respondents), advocate (33.3 percent), liaison between student and faculty/administration (25.9 percent), and facilitator (18.5 percent). Many respondents indicated that their role was a combination of more than one of the above.

### **Available Services**

Several general questions were asked regarding the nature of services provided to students with special needs. The first question addressed the manner in which students became aware of the available services. Six choices were given and participants were asked to rank the various methods from most frequent to least frequent, and to add any additional methods that were specific to the institution the respondent represented. There were no significant differences in ranking between small universities and large universities. The rank order for the total sample was as follows:

1. Letters written by the student to the office prior to admission.
2. Referrals from guidance counsellors and/or special education staff of feeder high schools.
3. Direct referral from faculty/advising staff.
4. Written/audio-visual materials available at registration.
5. Direct referral from health services office.
6. Written/audio-visual materials available at health services or residence offices.

Staff at both small and large universities frequently mentioned “word of mouth” (i.e., learning about the service from another student) as being another means by which students gained access to services.

Respondents were asked to rank the problems experienced in trying to provide services to disabled students. Eight potential problem areas were listed. In rank order, from most common to least common, the problems were deemed to be:

1. Lack of funds, staff and resources.
2. Accessibility of campus.
3. Procedures for the identification of students with handicaps.
4. Obtaining adaptive equipment/materials.
5. Obtaining volunteers.
6. Faculty/staff attitudes.
7. Student over-reliance on services.
8. Lack of students necessary for effective lobbying and program development.

Staff at both small and large universities frequently mentioned the lack of stated policies regarding students with disabilities as a problem area. Several respondents commented on the urgent need to develop policies regarding course/degree modifications for students, particularly in light of current and future litigation.

Overall, there were no major differences in the types of problems encountered at small and large universities, except in the areas of accessibility and attitudes of faculty and staff. At small universities, accessibility in general was reported as being less of a problem than at large universities; however, several coordinators at small universities reported specific problems with terrain (e.g., universities being built on steep hills in rural locations), whereas coordinators at large universities cited problems with distance and lack of accessibility for some of the buildings. Large universities are more likely to be found in highly urbanized areas and, consequently, the numerous buildings are spread over many city blocks. Many of the buildings were reported to be old and consequently difficult to modify (e.g., replacing stairs with elevators).

At large institutions, faculty attitudes were reported to be more a problem than at small universities. Poor faculty attitudes was the third most common problem reported at large universities. Willingness of professors to make allowances for students with handicapping conditions (e.g., accepting taped vs. written assignments, giving permission to tape lectures, adhering to rigid deadlines for assignments) was frequently cited as a specific problem.

Respondents were also requested to indicate the services provided by the Coordinator of Services, and his/her staff, to the university community. Four different services were listed, and in order of frequency, from most common to least common, they included:

1. improving the awareness and sensitivity of faculty/staff to the needs of students with disabilities (e.g., providing speakers and arranging workshops);
2. assisting the faculty and administrators to develop equitable and appropriate guidelines with respect to degree and course requirements;
3. working closely with admission officials to ensure that admission procedures do not discriminate against disabled students; and
4. helping faculty and/or staff design and implement specific instructional adaptations.

Even though working closely with faculty and staff in terms of instructional adaptations had the lowest ranking, several respondents indicated that this was an area of particular concern. Several coordinators commented that they had, regrettably, little time to work with individual staff members because of other pressing commitments. This comment was particularly evident for people working on a part-time basis.

A final question dealt with the frequency of contact between the Office for Students with Disabilities and various university personnel. The respondents were asked to indicate the number of phone calls received on average, by various members of the university community. A great deal of variation was evident, both in small and in large universities. The coordinators indicated that the office received between 1-2 calls per year (minimum) and 40-50 calls per month (maximum) from faculty members and 2-3 calls per month (minimum) and 100 calls per month (maximum) from administration staff. Health services staff rarely contacted the office (2-10 calls per month, on average). Similarly, calls from residence staff were limited in number (2-5 calls per month). Several coordinators indicated that the high number of calls from administration staff occurred particularly around exam time and that most of the calls were in regard to allowable modifications in testing (e.g., extra time allowances, oral vs written format).

In terms of actual services provided to students through the Office for the Disabled, forty specific services were listed on the questionnaire, and Coordinators for Students with Disabilities were requested to check all services that were provided by themselves and/or their staff. The services that are offered by at least 50 percent of both small and large institutions are summarized in



Table 4. In all cases, large institutions offered more services than small institutions. The most common services were general advising, acting as a liaison to faculty and administration, and arranging for special testing options. Each of these were reported by 88.9 percent of the universities overall.

Table 4

Percentage of Institutions Offering Specific Services to Students with Disabilities (by decreasing frequency):

Type of Service	Size of Institution	
	Small (n=12)	Large (n=15)
General advising	75	100
Acting as a liaison to faculty and administration.	75	100
Arranging for special testing options	75	100
Special registration procedures	58	100
Obtaining note takers	58	100
Providing written and/or audio-visual information on available services	67	87
Obtaining readers to tape books	58	87
Acting as a student advocate	67	73
Obtaining tutors	67	73
Acting as a liaison to community services	58	80
Orientation of students to the campus	50	80
Obtaining recorded/brailled and/or large print texts/handouts	58	67
Academic counselling	50	53

Note: Frequency greater than 50% at both small and large institutions

The number of services provided by small or large institutions, in which at least 50 percent of one type of institution (i.e., small or large) provided the service, is summarized in Table 5. Again, large institutions as a group offered more services than small institutions. In fact, in all cases except one, large institutions offered more services than small institutions. Small universities offered specialized courses specifically to students with disabilities (25.0 percent) more often than large institutions (20.0 percent) (e.g., courses in study skills for learning disabled students).

Table 5

Percentage of Institutions Offering Specific Services to Students with Disabilities (by decreasing frequency):

Type of Service	Size of Institution	
	Small (n=12)	Large (n=15)
Arranging priority class registration	42	80
Providing special equipment	42	73
Obtaining interpreters	33	80
Providing special parking permits	33	73
Financial-aid counselling	33	67
Obtaining personal assistance attendants	33	67
Vocational/career counselling	33	60
Arranging office and/or carrel space	33	60
Assisting in determining distances between classes/buildings	25	67
Facilitating group rap sessions/ organizations for students	25	60
Providing special materials	33	50

Note: Frequency greater than 50% at large institutions.

It should be noted that several respondents indicated that some of the services itemized on the questionnaire were provided to the students; however, they were not provided by the Office for Students with Disabilities (e.g., financial-aid counselling, academic counselling). Both small and large postsecondary institutions reported services that were available to students with disabilities by other service providers *on campus* (e.g., job placement service provided by the Employment/Manpower office on campus), or by service providers located *within the community* (e.g., physical or occupational therapy provided by a private/public agency).

Respondents were asked to specify the types of special equipment and materials provided by the Office for Students with Disabilities. In order of frequency from most to least common (for both large and small institutions combined), the equipment available for student use included: tape recorders (66.7 percent), adapted computers (63.0 percent), amplification devices for the

deaf (63.0 percent), braille writers (55.5 percent), type-writers (55.5 percent), and closed circuit television systems (25.9 percent). The materials provided included: carbonized paper (55.5 percent), accessibility maps/tactile maps (48.1 percent), cassette tapes (37.0 percent), and braille paper (29.6 percent). There was no significant difference in the types of materials offered by small and large institutions; however, larger universities provided more technological equipment (e.g., adapted computers, closed circuit television systems).

### **Accessibility**

The final section of the questionnaire was devoted to examining accessibility of the institution. Questions dealt with both the physical terrain and layout of the campus, and the individual buildings on-site. Accessibility in terms of specific handicapping conditions (i.e., physical impairment, hearing impairment, visual impairment) was investigated.

In terms of general terrain and layout of the campus, seventy-three percent of the respondents at large institutions indicated that most of the grounds were manageable for mobility impaired students; whereas fewer respondents at small institutions indicated that the grounds were manageable (63.6 percent). In a few cases, the university provided transportation from building to building, but in most cases (73.3 percent), transportation was provided by community-based companies (i.e., public and/or private taxi or bus companies).

The degree of accessibility for buildings varied greatly at both small and large institutions. In all cases, individual buildings not used as classrooms or residences (e.g., bookstore, library, cafeteria) were described as being accessible more often in large institutions than in small institutions. In many cases large campuses have more than one bookstore, library, or cafeteria (on one or more campuses), and not all of such buildings were declared to be accessible. In most cases, however, the majority were reported to be free of major barriers. All buildings, except the Employment/Manpower office, were reported to be accessible in at least 50 percent of the campuses, regardless of size.

The frequency of modifications available for individuals with physical, hearing, and visual impairments are presented in Tables 6, 7 and 8 respectively. One small university did not complete the section on accessibility; consequently the analysis of the data is based on 26 respondent institutions.

Accessibility for the student with a visual impairment was also limited in most of the universities. Very few signs, doors or elevators were marked in braille; however, many of the institutions did attempt to provide specialized equipment required by the student to attend courses. It should be noted, though,

Table 6

Facilities Accessible to Students with a Mobility Impairment

Facility	Size of Institution		Total (%) (N=26)
	Small (n=11)	Large (n=15)	
<u>Building Entrance Ramps:</u>			
1. Classroom/Lab/Studio Buildings			
all have ramps	3	3	23.1
ramps to half or more	4	6	38.5
ramps to less than half	4	6	38.5
none has ramps	0	0	0.0
2. Residences			
all have ramps	1	5	23.1
ramps/half or more	2	6	30.8
ramps/fewer than half	4	3	27.0
none has ramps	2	1	11.5
not applicable	1	0	3.8
<u>Handrails: (all buildings)</u>			
all stairs have handrails	5	6	42.3
handrails/half or more	4	5	34.6
handrails/fewer than half	2	3	19.2
none has handrails	0	0	0.0
<u>Automatic Doors: (all buildings)</u>			
all doors are automatic	0	0	00.0
auto doors/half or more	0	0	00.0
auto doors/fewer than half	5	11	61.5
none has automatic doors	5	3	30.8
<u>Elevators: (Multi-story building)</u>			
all have elevators	2	4	23.1
elevators/half or more	5	9	53.8
elevators/fewer than half	4	1	19.2
none has elevators	1	0	3.8
<u>Curbing:</u>			
all curbs are sloping	4	4	30.8
cut curbs/half or more	2	10	46.1

Table 6 (continued)

Facilities Accessible to Students with a Mobility Impairment

Facility	Size of Institution		Total (%) (N=26)
	Small (n=11)	Large (n=15)	
cut curbs/fewer than half	4	0	15.4
none has sloping curbs	1	0	3.8
<u>Low Level Public Conveniences: (all buildings)</u>			
1. Telephones:			
all have low phones	0	4	15.4
low phones/half or more	5	7	46.1
low phone/fewer than half	2	4	23.1
none has low phones	4	0	15.4
2. Drinking Fountains:			
all have low fountains	0	0	0.0
fountains/half or more	1	5	23.1
fountains/fewer than half	3	9	46.1
none has low fountains	7	0	27.0
3. Low Control Panels for Elevators:			
all have low panels	3	1	15.4
low panels/half or more	3	3	23.1
low panels/fewer than half	4	8	46.1
none has low panels	1	2	11.5
<u>Modified Washrooms: (all buildings)</u>			
all have modified washrooms	2	6	30.8
washrooms/half or more	4	5	34.6
washrooms/fewer than half	5	4	34.6
none has modified washrooms	0	0	0.0
<u>Seating for the Disabled: (auditoriums/gymnasiums)</u>			
all have reserved seating	1	2	11.5
seating/half or more	4	4	30.8
seating/fewer than half	0	7	27.0
none have reserved seats	5	1	23.1
<u>Designated Parking: (campus grounds)</u>			
all buildings have parking	6	6	46.1
parking/half or more	5	4	34.6

Table 6 (continued)

Facilities Accessible to Students with a Mobility Impairment

Facility	Size of Institution		Total (%)
	Small	Large	
parking/fewer than half	0	2	7.7
no special parking	0	1	3.8
<u>Emergency Treatment by Designated Person: (all buildings)</u>			
person/all buildings	2	2	15.4
person/some buildings	2	1	11.5
no designated person	1	1	7.7
health service on campus	6	10	61.5
city-wide 911 service available	0	1	3.8

Note: Some respondents did not answer all the questions related to accessibility. One small university omitted this section of the survey. Percentages do not always total to 100%.

For the mobility impaired student (e.g., a student in a wheelchair), access to the campus was facilitated by the availability of designated parking spaces. However, access to buildings was severely limited, as only a small percentage of buildings had entrance ramps and automatic doors. Once inside the building, the student may also encounter difficulty, as there are very few buildings with low level public conveniences (e.g., low level telephones, drinking fountains).

Accessibility to the campus for the student with a hearing impairment was also limited, as only one institution had a telecommunication device for the deaf (TDD) connected to the main university switchboard, and only half of the universities had a TDD connected to the Office of the Coordinator of Services for Students with Disabilities. Similarly only a few lecture halls, auditoriums and gymnasiums had installed amplification systems for the hearing handicapped. However, it should be noted that several respondents stated that such modifications/equipment were not necessary, since students with a hearing impairment had never enrolled in their respective institutions. Others reported that such equipment was not necessary, since students provided their own (i.e., personal amplification systems).

Table 7  
Facilities Accessible to Students with a Hearing Impairment

Facility	Size of Institution		Total (%) (N=26)
	Small (n=11)	Large (n=15)	
<u>Telecommunication Devices for the Deaf (TDD):</u>			
at main switchboard	0	1	3.8
in Office for the Disabled	4	9	50.0
other buildings			
TDD /half or more	0	1	3.8
TDD/fewer than half	2	9	42.3
none has TDDs	9	3	46.1
<u>Amplification Systems:</u> (lecture hall/auditorium/gymnasium)			
all have systems	0	1	3.8
systems/half or more	3	0	11.5
systems/fewer than half	5	3	30.8
none has amplification systems	3	11	53.8
students use personal systems	0	6	23.1

Note: Some respondents did not answer all the questions related to accessibility. One small university omitted this section of the survey. Percentages do not always total to 100%

Accessibility for the student with a visual impairment was also limited in most of the universities. Very few signs, doors or elevators were marked in braille; however, many of the institutions did attempt to provide specialized equipment required by the student to attend courses. It should be noted, though that several respondents stated that such modifications/equipment were not necessary, since students with a visual impairment had never enrolled in their respective institutions.

Even though older buildings are difficult to modify and alterations are extremely costly, all respondents mentioned that as funds were being made available, alterations were being made. Several coordinators indicated that it has been the presence of a disabled student on campus that has forced building supervisors to modify existing buildings; but others indicated that local building codes and Human Rights legislation were necessitating the change-over<sup>4</sup>. Almost all respondents reported that if a particular building were inaccessible, attempts were made to relocate the class to an accessible building. Several

Table 8

**Facilities Accessible for Students with a Visual Impairment**

Facility	Size of Institution		Total (%) (N=26)
	Small (n=11)	Large (n=15)	
<u>Signs/Door Markings: (all buildings)</u>			
all in braille/large print	1	0	3.8
signs/half or more	1	1	7.7
signs/fewer than half	2	6	30.8
none in braille/large print	7	8	57.7
<u>Elevator Controls in Braille: (all multi-story buildings)</u>			
all in braille/large print	1	2	11.5
controls/half or more	1	2	11.5
controls/fewer than half	7	5	46.1
none in braille/large print	2	5	27.0
<u>Auditory Output in Elevators: (all multi-story buildings)</u>			
all have auditory output	0	0	0.0
output/half or more	0	0	0.0
output/fewer than half	2	3	19.2
none has auditory output	9	9	69.2
<u>Specialized Equipment available on Campus:</u>			
Closed Circuit TV System(s)	4	8	46.1
Optacon(s)	1	2	11.5
Kurtzweil Reader(s)	2	8	38.5
Adapted Computer(s)	3	13	61.5

Note: Some respondents did not answer all the questions related to accessibility. One small university omitted this section of the survey. Percentages do not always total to 100%.



respondents indicated that the Administration of the university was very sympathetic to the special needs student, but that the town planners in the towns/cities in which the university was located were negligent in providing adequate services (e.g. city-wide transportation).

### Discussion

Because of the paucity of information on services for students with disabilities in postsecondary institutions in Canada, it is difficult to interpret the data obtained. However, the responses seem to indicate that both small and large institutions are attempting to accommodate special needs students. Eighty-five percent of responding institutions have a designated person to assist the student with a disabling condition, and at fourteen universities (51.8 percent) the person works on a full-time basis. A wide variety of services is available to the student and to the university community, the most common being general advising. Accessibility continues to be a problem at both small and large universities, and wide variation is found both between small and large institutions and for different disability groups (i.e., mobility impaired, hearing impaired, and visually impaired).

The findings of the present study are very similar to those reported by Stilwell *et al.* (1983) in their examination of services available to students with disabling conditions in the state of Kentucky. The authors reported that "institutions of higher education ... have responded and adapted to handicapped students, but the degree of adaptation has been uneven" (p. 343). Marion and Iovacchini (1983) reported that "basic services" are available in most institutions in the United States; however, they added that "it is likely that most administrators and governing boards will choose to provide only the minimum services required by law" (p. 135). One should be cautious in comparing results obtained in Canada to those obtained in the United States, for American legislation (specifically the *Rehabilitation Act* of 1973, Section 504) requires federally funded institutions to have "programs and services accessible to handicapped individuals" (Marion & Iovacchini, 1983, p. 131). Similar requirements are not federally mandated in Canada, and consequently the finding that both small and large universities are attempting to make institutions accessible for the student with a handicapping condition (i.e., in terms of reducing policy, social and architectural barriers) is particularly encouraging.

Overall, the difference between large and small universities in terms of variability of services and the number of institutions offering such services is not excessive. Large institutions in Canada offer more services than small institutions, and have more support service workers employed than small universities. However, the ratio of types of services to number of students and

ratio of number of employees to total enrolment are comparable. Nonetheless, there are specific areas of concern at both small and large institutions.

Small universities appear to be caught in a particular dilemma: more students with disabilities attend small universities than large institutions (0.7 percent vs 0.5 percent of the total population), however, there are fewer staff to provide the services and fewer types of services available overall. In some small institutions there are no designated funds allocated to serving students with special learning needs. Lack of funds, staff and resources was reported to be the greatest problem in small universities.

It is not known why more handicapped students chose a smaller institution; however, this finding is similar to that reported by Sargent *et al.* (1987). It is reasonable to surmise that there is a variety of factors that a particular student may consider (e.g., smaller class size, increased personal contact with instructors) in making a choice (Bursuck, Rose, Cowen & Azmi Yahaya, 1989).

It was not surprising to discover that large institutions provide a wider range of services than do small institutions, particularly considering the fact that the additional staff members employed in the Office of Services for Students with Disabilities might have a particular area of expertise or a specific talent to offer (e.g., staff member trained to do assessments, a staff member fluent in sign language). However, large institutions are also caught in a dilemma: more services are provided to students, but at the same time Coordinators of Services for Students with Disabilities reported more problems in the area of accessibility and in terms of faculty and staff attitudes. For the student with a physical impairment, travel between buildings in a short period of time between classes may be virtually impossible, particularly in inclement weather. One university reported having over 100 buildings, spread over a large urban area. Negative faculty attitudes towards students with handicapping conditions were reported to be more prevalent at large universities than at small. Faculty at larger institutions often have less personal contact with students with a disability (Fichten, 1988); and lack of contact has been shown to affect attitudes (Fonosch & Schwab, 1981). The results of the present study indicate that Coordinators of Services for Students with Disabilities are attempting to work with faculty members in an effort to improve the awareness and sensitivity of staff to the needs of the disabled. However, reported time constraints often prevent working on an individual basis with faculty members.

The finding that persons with a physical impairment outnumbered all other types of individuals with other handicapping condition was similar to that found in the HALS survey (Statistics Canada, 1990a) in which, for the 15-64 age

bracket, individuals with mobility problems exceeded all other groups (59.3 percent of total group)<sup>5</sup>. A similar finding was also reported in the United States (Sergent *et al.*, 1987). However, of particular concern is the need to accommodate the learning disabled student at the postsecondary level. The data from the present study indicate that the number of learning disabled students attending postsecondary programs is second only to the number of physically impaired students<sup>6</sup> (25.15 percent vs 30.54 percent of the population of known students with disabling conditions). A similar finding has also been reported in the United States by Marion and Iovacchini (1983) and by Sergent *et al.* (1987). It is widely recognized that the population of learning disabled students has and continues to increase dramatically (cf McGuire & O'Donnell, 1989; Nelson & Lignugaris/Kraft, 1989; Sergent *et al.*, 1987; Wilchesky, 1986); however, studies have shown that faculty members have limited knowledge about learning disabilities (Aksamit, Morris & Leuenberger, 1987) and may have misconceptions about this particular disability area (McGuire & O'Donnell, 1989). Faculty members may not recognize the need for accommodation because of the lack of "visibility" of the learning disability (Aksamit *et al.*, 1987; Wilchesky, 1986). Both small and large universities across Canada reported providing services to learning disabled students; however, the type of services (e.g., obtaining tutors, obtaining readers to tape books, obtaining note takers) and availability of such services varied widely.

Both small and large universities reported difficulty in identifying students with handicapping conditions. This problem was reported slightly more often by staff at large universities than at small institutions. Several coordinators raised the issue of invasion of privacy (i.e., in requesting information about the presence of a disabling condition at the time of application), particularly in light of the recently enacted Canadian Charter of Rights and Freedoms and existing provincial Human Rights legislation. A few postsecondary institutions reported that they do not rely solely on self-report upon arrival on campus, but rather require students to provide detailed information regarding the nature of the disability and the anticipated services that the student may require (e.g., large print books) immediately upon acceptance. Several universities reported having developed specific forms to obtain such information. However, this procedure does not appear to be a common practice across Canada.

One method of identifying students is by means of referral from feeder high schools; however, it should be noted that many students (with or without disabilities) do not enter postsecondary programs immediately after completing their high school education. Nonetheless, for those that do, Fairweather and

Shaver (1990) stressed the need to improve linkages between secondary and postsecondary educational institutions. In comparing the secondary school environment to that of postsecondary education, the authors suggested that the problem is one of moving from a "protected environment" (in which, by law, appropriate services must be provided) to one in which the "burden is on the student to notify the postsecondary institution about the nature of his or her disability and the need for assistance" (p. 334). Because of the problems in identifying students with disabling conditions, Fairweather and Shaver stated that "even if the institution can provide the necessary services, the student may drop out before the student's needs for such services are known" (p. 334).

Coordinators reported that most students become aware of services by letters written prior to admission. However, students may not be aware of whom to write to or where the person might be located. In the present study, three questionnaires were returned to the researcher marked "addressee unknown". Each of the universities had, in fact, a person designated to provide services to special needs students, but the individual did not go by the title "Coordinator of Services for Students with Disabilities". When the letters were sent, in a subsequent mailing, to the Dean of Students' Office, responses were received.

Of the 40 services listed on the questionnaire, the majority (60 percent) were available through the Office for Students with Disabilities and many of the remaining services were available through other offices on campus, often in conjunction with the Office for Students with Disabilities. Availability of services, equipment and materials for use by students in Canada closely resembled those available to American students (cf. Marion & Iovacchini, 1983; Sergent *et al.*, 1987).

The provision of a list of services (see Table 4) offered by at least fifty percent of the universities, regardless of size, may be of assistance to staff working with students with disabilities in evaluating the current level of service at their respective institution and in identifying services not provided that could be made available in the future. Some services were reported to be rarely offered (i.e., by fewer than 25 percent of the universities combined). They included: job placement service (22 percent); wheelchair loan/repair service (20 percent); repair of equipment (18.5 percent); homebound service for students unable to attend classes as a result of illness (16 percent); and 24-hour emergency service (8 percent). Many of these services would be available in the community, from either private agencies or governmental agencies (e.g., job placement service available through the Employment/ Manpower Office), and should not, in most cases, be considered under the mandate of the university.

## Recommendations

The following recommendations are derived from the findings of the present study, the comments offered and the materials submitted by the respondents to the survey, and a review of the related literature on postsecondary education of students with disabling conditions. The recommendations apply to both small and large universities, unless specified.

1. Universities must ensure that they develop fair and equitable policies regarding the admission of students with disabilities<sup>7</sup>. Students with special needs may have graduated from secondary schools with nonstandard high school leaving certificates (e.g., sign language as a substitute for a second language, mobility rather than physical education) that may hinder the usual admission process. Each application should be considered as being unique, and should be reviewed by a special committee. Universities must address the issue of sensory and physical ability and course pursuit (e.g., Should a student with a visual impairment be able to pursue a career in medicine? a hearing-impaired student a career in law? a wheelchair user a career in nursing?) (Fichten, 1988).
2. Applications from students with a disability should be vetted by an admissions committee, consisting of:
  - Director of Admissions,
  - Coordinator of Services for Students with Disabilities,
  - Appropriate Dean or Chair of subject area,
  - Faculty member with expertise in the specific disability area (e.g., from the Department of Special Education).
3. Universities must ensure that students with disabling conditions are identified early, before the student encounters difficulty and withdraws. Fairweather and Shaver (1990) suggested that lack of awareness of available services before admission may adversely affect “the likelihood of application to and success in college” (p. 334). Letters that are written by students prior to admission to the university must be received by the Office of Services for Students with Disabilities, regardless of the name under which it is known. All students that are accepted by the institution should be sent written materials on services for students with disabilities (including information on criteria for service) and should be required to provide detailed information regarding their unique needs (e.g., wheelchair accessible buildings) prior to arrival on campus.

4. Strong linkages between secondary and postsecondary educational institutions must be developed (Fairweather & Shaver, 1990). Universities should distribute materials related to the types of services available, and the extent to which the university is accessible, to high schools, public and private agencies serving students with special needs, and libraries within their respective province, thus encouraging students with disabling conditions to apply. Several directories are currently available that provide limited information regarding accessibility of specific institutions in both Canada and the United States<sup>8</sup>.
5. All universities should ensure that there is a designated person within the university to assist students with special needs. Fonosch and Schwab (1981) reported that faculty members at a university with an office providing services to students with disabilities had a more positive attitude than their counterparts at universities where no such services existed. *In universities where the enrolment of special needs students is limited, the person would probably not be needed on a full-time basis.* The findings of the present study indicated that a ratio of 1 service provider to 65 special needs students is the average in Canada.
6. In small universities where there is an insufficient number of students to warrant employment of a specific staff member to assist special needs students, special education faculty (and their students) could be involved in providing assistance (Salend, Salend & Yanok, 1985). Activities could include advising students, promoting positive campus attitudes and assisting in learning centres. In both small and large universities, such an arrangement would, in effect, enhance the number of people available to assist special needs students.
7. Administrative staff of the universities must ensure that there is sufficient funding to hire the necessary staff and to operate the programs that provide services to students with disabilities. If faculty members are involved in the provision of services (see Recommendation #6), release time should be provided. Lack of funds, staff and resources was cited as the greatest problem area in providing services to students in need.
8. Universities should attempt to provide the various services required by the students with special learning needs to pursue a postsecondary education. In some cases, the specialized services may already be provided by agencies in the community (e.g., wheelchair loan), and in such cases the staff should not attempt to duplicate those available, but instead should be knowledgeable about such services and ensure students obtain the

- necessary referral. The services listed in Tables 4 and 5 may assist coordinators in determining what services should be provided at their respective institutions.
9. On-going professional development opportunities must be made available to staff in the Office for Students with Disabilities. The majority of the respondents in the present study indicated that they had limited training in working with individuals with special needs (over 40 percent reported no formal training); however, several indicated that they taken isolated courses, attended conferences on the needs of students with handicapping conditions, and had read widely on the topic. The findings related to training in the present study differ significantly from those found by Kelly (1984) in her research on training of collegiate coordinators of services for students with disabilities in the United States. In examining the training of 409 service providers, Kelly found that 81.1 percent of those surveyed had either a Master's or a Doctoral degree and that 72.0 percent had taken one or more specialized courses in working with special needs students.
  10. Universities must examine current policies regarding acceptable accommodations (e.g., degree and course requirement modifications) for students with learning problems<sup>9</sup>. Some universities have policies in effect; however, it would seem from the findings of the present study that the majority do not. Some universities appear to allow specific exemptions for learning disabled students (e.g., waving language requirements for graduation), while others have not addressed the issue (Canadian Press, 1990). Universities must ensure that the policy guidelines are included in the calendar and faculty handbook of the institution.
  11. Faculty and staff must become more sensitive to the needs of students with handicapping conditions. Research has shown that staff who are better informed have a more positive attitude towards those with special learning needs (Aksamit *et al.*, 1987). Faculty members newly appointed to the university should be required to attend a seminar on the needs of students with disabilities. Current staff who have not had such training should also be required to participate. Coordinators of Services for Students with Disabilities, or their staff, should regularly contact faculty members who have special needs students in their classes to discuss appropriate modifications that may be required to accommodate the students (cf. Hill, 1991). All faculty and staff, particularly those working in the residences and health service office, should be cognizant of

- available services and should be encouraged to refer students encountering difficulty.
12. As funds become available, renovations should be carried out to ensure buildings are totally accessible to students with varying types of disabilities (e.g., mobility impaired, hearing impaired, visually impaired). Universities should actively search for funds if none is available through the usual channels. All buildings that are frequented by students with handicapping conditions on a regular basis should be made accessible immediately (e.g., bookstores, libraries, cafeterias, residence halls). In particular, the building in which the Office for Students with Disabilities is located must be accessible to all students.
  13. Universities, both small and large, should consider offering specialized courses for students with disabling conditions (e.g., college survival skills, career decision-making). Torres (1984) reported that a survival skills course offered at Kingsborough Community College in Brooklyn, New York resulted in increased student retention, enhanced student familiarity with policies and procedures, and improved academic progress.
  14. Even though universities should attempt to assist the special needs student pursue a university career, the staff should be cautioned about becoming oversolicitous. Faculty and staff should remember that "most handicapped students do not view their disability as a 'great tragedy' that has befallen them. Rather, they see it as a fact of life, an inconvenience, a cause of frustration" (Penn & Dudley, 1980, p. 356).

### Summary

Wilchesky (1986), in examining some of the critical issues which need to be resolved in serving students with disabilities attending postsecondary institutions, stated that the most crucial question, at that time, was: "To *what extent* will society *demand* [italics added] that colleges and universities provide special education services for students with learning disabilities and/or other handicapping conditions?", particularly since "contemporary college instruction is not geared toward the individual student, but at the transmission of a delineated amount of information in a specific area of discipline to large numbers of students" (McCloughlin, 1982, cited in Wilchesky, 1986, p.8). With an increase in enrolment of students with disabilities, society must demand such services now.

No two students have the same needs. The services required by a student with a visual impairment differs from those called for by a student with a



hearing impairment. The requirements of a mobility impaired student do not resemble the requirements of those with a learning disability. The purpose of the present study was to examine the types of services available to students with handicapping conditions pursuing a postsecondary education, and the extent to which these services are available in facilities that varied by size, across Canada. Even though a wide variation was evident, it would appear that even universities with small enrolments are attempting to provide basic services necessary to accommodate students with disabling conditions and attempting to make campus buildings accessible. Future research is needed to examine the types of services and the extent to which services are available at other postsecondary institutions (e.g., community colleges, trade schools) in Canada, and to investigate whether or not the consumers of such services, the students with special learning needs, are satisfied with the assistance offered to them in their pursuit of a postsecondary education.

#### Notes

- <sup>1</sup> The "non-traditional" student population also includes the middle-aged and elderly college student with concomitant physical disabilities (Fichten, 1988; Kelly, 1984), the student with a specific learning disability (Aksamit, Morris & Leuenberger, 1987) and the disabled veteran (Stilwell & Schulker, 1973).
- <sup>2</sup> The HAL Survey used the World Health Organization's definition of disability, which is: "any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being." The nature of the disability was categorized into one of the following groupings: mobility, agility, seeing, hearing, speaking, "other", and "nature not specified".
- <sup>3</sup> Size of universities varies widely across Canada. Statistics Canada (1990b) reported that approximately one-third of the institutions had 10,000 full-time students or more and that the largest had in excess of 30,000 full-time students. In one study similar to the present investigation, conducted in the United States, both the range of services and the number of institutions offering these services were found to be comparable in small institutions (total student body numbering fewer than 10,000) and in large institutions (total student body numbering 10,000 or more) (Sergent *et al.*, 1987); however, it is unknown at the present time whether similar equality exists in Canadian institutions.
- <sup>4</sup> Under Canadian law, the regulations that mandate accessibility of buildings is a provincial responsibility. "Building codes generally apply to new construction and have traditionally been concerned with fire safety, structural sufficiency and health of the building's occupants. More recent codes have dealt with accessibility for handicapped persons and with energy conservation" (Canadian Encyclopedia, 1988, p. 296).
- <sup>5</sup> In the 15-64 age group the rank order for reporting on the nature of the disability was: mobility (59.3%), agility (51.9%), hearing (23.6%), vision (11.6%) and speaking (6.1%).

The remaining included "other" (28.0%) and "nature not specified" (8.4%). It should be noted that a person may have reported more than one limitation.

<sup>6</sup> The exact number of learning disabled individuals in Canada is unknown. In the HAL Survey (Statistics Canada, 1990a), individuals with learning disabilities were classified under "other". However, this grouping also included individuals with emotional or psychiatric disability, and those that are developmentally delayed (i.e., mentally retarded).

<sup>7</sup> Scott (1990) proposed a set of guidelines that can be used to assist faculty and staff in determining whether or not an "otherwise qualified" student with a disability should be accepted into a postsecondary program. The term "otherwise qualified" student comes from Section 504 of the Rehabilitation Act of 1973 in the United States of America. The act states: "No otherwise qualified handicapped individual shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance [e.g., postsecondary institutions receiving federal assistance in the form of financial aid to students]." University staff attempting to develop equitable admission policies will benefit from an examination of this article.

<sup>8</sup> The National Educational Association of Disabled Students [NEADS, 4th Level Unicentre, Carleton University, Ottawa, ONT K15 5B6, Canada] has recently compiled a detailed directory that provides information on services and levels of accessibility on 130 colleges and universities in Canada. McGeough, Jungjohan and Thomas (1983) provides information of selected college facilities in the United States and Canada.

<sup>9</sup> Wilchesky (1986) addressed the issue of "reasonable accommodations". He cited a study by Goodin conducted in 1985 in which 586 professionals in the area of postsecondary education for students with special needs determined that the following accommodations were acceptable: permission to respond orally to essay exams, dictate test answers to proctors, take a proctored exam in another room, take extra time to complete an exam, tape record lectures. The following adjustments were viewed more unfavorably: exemption from academic probation and dismissal policies, allowing proofreaders to substitute higher level vocabulary in a draft, allowing proofreaders to reconstruct the draft. Wilchesky concluded, by saying: "In any case, the issue of reasonable accommodations must be addressed in order to ensure ... that both the integrity of the degree-granting institution and the learning disabled student remain intact" (p. 8). Similarly, Nelson, Dodd and Smith (1990) examined faculty willingness to provide students with learning disabilities instructional, assignment, examination and special assistance accommodations among faculty in the colleges of Education, Business and Arts and Sciences. University staff attempting to develop equitable policies regarding acceptable accommodations will benefit from an examination of these articles.

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