AN ASSESSMENT OF PROBLEMS IN THE TRANSPORTATION
OF BLIND AND DEAF CHILDREN

by

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B.A., University of British Columbia, 1974

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE

THE FACULTY OF GRADUATE STUDIES
in the Department
of
Health Care and Epidemiology

We accept this thesis as conforming to the
required standard

THE UNIVERSITY OF BRITISH COLUMBIA
April, 1977
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Date April 29, 1977
This study was a preliminary step in an assessment of the transportation services accessible to blind and deaf children in Vancouver. It originated in response to the ever increasing concern voiced within the community about the problem of inadequate transportation facilities for handicapped children. The purpose of the research was to determine the extent to which public and special transportation services are accessible to children with visual and hearing impairments and to propose improvements that might be made.

In order to research this problem, four basic methods of collecting information were employed, as follows: documentary analysis; interviews and correspondence with transportation experts; mailed questionnaires to parents of blind and deaf children; and, personal interviews using the same questionnaire. The sample population was randomly selected from blind and deaf children between the ages of 6 and 19 years who were affiliated with Jericho Hill School in the 1974-75 school term. Sixty-one (48%) questionnaires were completed and used in this study.

Findings regarding mobility limitations showed that the sample population was quite mobile and over half reported not having to rely on special aids to help them get around outdoors. Of those requiring some kind of aid, most used either a cane or another person.
Travel data were obtained for three trip destinations: school, medical facilities, and recreational activities. Findings showed the children were not restricted in travel to recreational activities. Transportation to medical facilities was not found to be a problem because the majority of the children used those provided at Jericho Hill School. Access to school transportation was not reported to be a problem in itself; however, it was found that the trip from home to school was problematic in terms of travel time and safety requirements.

It is a conclusion of this study that if Jericho Hill School remains as a central facility a more localized shuttle service would be the maximum requirement. However, if decentralization occurs the provision of a parallel system run on a demand-responsive basis would be necessary.

It is apparent from this study, which has attempted to review the range of problems and needs for transit of blind and deaf children, that problems for them are perhaps common to all handicapped children.
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ACKNOWLEDGEMENTS

This thesis has been made possible through the support of a great number of people. For their advice and encouragement through the course of this study, I wish to thank Liz Shoofey who contributed to the design and administration of the questionnaire, Ron Sizto who assisted in programming for data production, and Dr. Pauline Morris and Dr. Greg Stoddart whose ideas and criticisms have contributed to numerous improvements to this thesis.

I am especially thankful to Professor Morton Warner, my research advisor, for his help, and his constant availability during the course of this study.

Finally, to some special friends whose support and encouragement during the writing of this thesis meant so much to me.
CHAPTER I

INTRODUCTION

Mobility is one solution to allowing those with physical handicaps to participate more fully in life. Because our society's patterns of land use and activity have developed in such a way as to spatially detach homes from places of employment, schools, shopping and medical facilities, it is essential that there be a means of transportation among these places for handicapped children and adults. The increasing dependence upon cars has come about as a result of the dispersion of such activities, but many of those with handicaps are either unable to handle a motor vehicle or in the case of school children are too young to drive. To provide the means for the handicapped population to take part on a regular basis in normal activities, some type of accessible public transportation service is a necessity.

This study originated as a response to the ever increasing concern voiced within the community about the problem of inadequate transportation services for handicapped school children and adults. Recently, two committees in Vancouver most closely involved with the problems of public transportation for the handicapped have complained of the inadequacy of transportation services. The Panel for the Handicapped, sponsored by the Social Planning and Review Council of British Columbia (SPARC of B.C.), composed of consumers of transportation services and representatives from those organizations who deliver
special transportation services in the Greater Vancouver area, has been keenly interested in the formulation and implementation of better transportation services for all handicapped persons. At a conference held in June, 1975, the Panel revealed the dissatisfaction of the handicapped themselves. Specific aspects of their dissatisfaction involved the inaccessibility of the public transit system due to physical barriers in the vehicle's design, and the high cost and unreliability of special transportation services. In a study prepared by SPARC of British Columbia (1975), the basic needs of handicapped travellers to adequate services were identified and guidelines were established aimed at setting standards in the delivery of special transportation services.

In September, 1974, the Vancouver School Board set-up an Ad Hoc Committee composed of representatives from the Vancouver School Board, the Metropolitan Board of Health, the Department of Human Resources and agencies concerned with the handicapped.* This group, referred to as the Committee on Special Needs of Children, sought in part to direct its attention to the question of transportation problems of school children. The Committee's major concern has been listing the various difficulties a child faces while travelling to school.

*Other members include the Social Service Department of the City of Vancouver, Oakridge School for Mentally Retarded Children, Children's Hospital, the British Columbia Attorney General's Department.
Perhaps the most important contribution this committee has made is its recognition of the widespread problem of transportation and its efforts to bring this concern to the attention of government.

In addition to these two committees, there has been over the years continuing dialogue about this problem and its possible solutions between agencies such as the Canadian Institute for the Blind, the Vancouver-Richmond Association for the Mentally Retarded, G.F. Strong Rehabilitation Centre and the Canadian Paraplegic Association about this problem and its possible solutions.

PURPOSE

The purpose of this current research was to determine the extent to which public and special transportation services are accessible to children with visual and hearing impairments and to consider ways in which transportation services for both handicapped children and adults might be improved. Specifically, the objectives of the study were as follows:

1. To identify the population of blind and deaf children attending or affiliated with Jericho Hill Schools;
2. The construction of an inventory of community transportation services and identification of modes available to children;
3. To assess the transportation needs of children associated with Jericho Hill Schools;
4. To propose improvements and alternatives to the present transportation service and specifically to consider the following questions:

(a) what is the appropriate organizational structure?

(b) how should the specialized transportation service be integrated with the existing services; what will be the effect of new services upon the already existing system?

(c) what eligibility criteria should be used?

(d) how and by whom should the special transportation service be funded?

(e) what standards of service should be incorporated in the specialized service?

SCOPE

In order to achieve the objective of this study, a decision was made during initial inquiries to limit data collection to two handicaps, the deaf and blind. Promised co-operation by Jericho Hill Schools for the Deaf and Blind led to its choice as the organization from which the target population should be drawn. This decision was made considering the time available for this project and the problems of accessibility of data concerning handicapped groups.
REFERENCES

CHAPTER I

CHAPTER II

REVIEW OF THE LITERATURE

Initial efforts involved a comprehensive review of studies having direct or indirect relevance to the study of transportation for handicapped children. The outcome was the realization that few meaningful studies and little valuable data exists. While the lack of published literature relative to this subject may have imposed a limitation to the study, it does emphasize the need for such an undertaking.

The issues to be discussed in this review are as follows:

1. The importance of adequate transportation;
2. The effect of society's attitude toward handicapped persons;
3. The handicapped person's right to transportation services;
4. The public transportation system as an equally accessible service; and
5. Government involvement in the provision of transportation accessible to the handicapped.

THE IMPORTANCE OF TRANSPORTATION

Several researchers (Markovitz, 1970; Magidson, 1972; and Nugent, 1972) have described mobility as the access to opportunities.
Lack of satisfactory transportation limits the life span of an individual, limits their capacity for self-maintenance, impedes their activities and social contacts with other people. It may also contribute to a person's alienation from society and ultimately to a state of anomie. Adequate transportation is not only humane but it is of economic value to society in that it sustains the person's capacity for independent living.

Magidson (1972) suggests that most public transportation services are planned for the "average man"; the problem for handicapped individuals then becomes apparent. Compared to the majority of the population, the handicapped because of their physical disability are less likely to drive their own vehicles, and are more often dependent on friends and relatives and public transportation services as a means of commuting.

Carp (1971) has described transportation as the mediator between the person and much of his environment. Although she was writing specifically about the mobility problems of retired persons, her findings appear to have wider application: medical, educational and recreational services are useful only to the degree that transportation is useable or workable for those who need it. Informal social contacts are possible only if access to friends is convenient and available. Psychologically, satisfactory transportation services may act as a catalyst for a fundamental transition of the way in which the handicapped person regards himself and his social role. It may be extremely frustrating to live in a community that highly values mobility and self-
reliance and to realize those aims are beyond reach. Carp claims that by lessening the handicapped person's dependence on friends for transportation an immediate degree of self-reliance is given.

Brattgard's study (1973) of persons suffering from disorders of the central nervous system and their integration into the mainstream of society provides useful information in this discussion of the importance of mobility. He illustrates that an essential component in accomplishing integration is the opportunity for handicapped people to go wherever desired. He is correct in stating that some of the worst barriers are not, as many think, curbs, narrow doors or the thresholds, however, bothersome they may be but rather the fact that public transportation systems do not function for the handicapped. Other societal arrangements such as rehabilitation services, employment, and training opportunities, lose much of their advantage if they are not accessible.

The Report (1974) of the Saskatchewan Co-ordinating Council on Social Planning (Charlebois) indicated in their study on the special needs of the handicapped that the affect of availability and accessibility is difficult to measure. However, the findings reveal that multidimensional benefits would result possibly for the handicapped and the community alike. Some of the gains would be immediate while others would come about as a result of long-term changes in the lifestyle of the handicapped person.

Following this discussion is an appraisal of the nature of a handicap and the ways in which society perceives and reacts to the handicapped.
SOCIETY'S VIEW OF A HANDICAP

Much of the literature seeks to establish that the handicapped are more similar to than different from those people not handicapped. In a study designed by Clunk (1950) to investigate employer attitudes to blind applicants, it was found that most negative attitudes consist in part of false beliefs and misinformation. To improve this situation agents of change will try to scatter accurate knowledge about the nature and the consequences of loss upon the individual. Clunk concluded that once the public is properly informed and has its fears dissipated, it will discover its negative attitude incapable of being defended and will by necessity begin thinking of the handicapped as equals: fair treatment would ensue.

In a study on physical rehabilitation, Litman (1972) asserts that society shows greater willingness to provide more resources for the sick than the disabled. He cites Parsons' (1963) analysis of the sick role to illustrate that society fails to pay regard to the consequences of chronic long-term illness or disability. Stigmatizing of illness as deviant and undesirable, and the organization of various community resources to fight illness is a reassertation of the value of health, and an opposing influence against the desire for illness. With a modification in attitudes it may be contended that people will gradually start to realize that handicapped people are their equals and commence to let them have equal access to opportunities.
The following section will discuss handicapped people's rights to equal and accessible transportation.

TRANSPORTATION AS A RIGHT

In a paper concerned with the problems of public transportation that confront children and adults with physical disabilities, Nugent (1972) states that the right and the need of mobility is common to all people and has never legally or morally been denied the physically handicapped. He further argues that the right to mobility should be thought of as one of the basic fundamental freedoms for all people.

But when we speak of a right what is meant? Rights have commonly been expressed as claims upheld by law, or in terms of duties, where every right rests on a relative duty lying on a party or parties other than in who the right rests. In Austin's terms (1954) a duty exists only where the law imposes (and enforces) a sanction for the breach of it.

Although Fried (1976) was writing specifically of the equality and rights in medical care, his discussion of the concepts appear to have wider application. He defines a right as more than an interest that a person might have, a condition which a person might prefer or a state of affairs. A claim of right calls forth entitlements, or something which people must have, and which, if they do not have, may demand, whether the rest of the population like it or not. Fried does not
consider, however, the fact that rights are not of much use to those claiming them unless they are enforced.

The concept of some kind of a right to transportation will probably not be found in any but the latest writings, not to mention legislation. Fried points out, that even the much older and well established institutions of free, universal public education has not attained the status of a federal constitutional right. The litigation concerning educational rights has been limited to the provision equally of whatever public education is in fact given. Therefore, it should not really come as any surprise that the idea of a right to an activity as optimal as transportation is something of a novelty.

EQUAL ACCESS TO PUBLIC SERVICES

One of the guiding principles embodied in the Report (1974) of the Saskatchewan Co-ordinating Council on Social Planning (Charlebois) is that the right to adequate transportation rests on a fundamental maxim that all citizens are entitled to equal access to basic public services.

In a discussion of equality of access to services in Great Britain, Warham (1974: 84) states that "equality of rights and entitlements may be effected by the ways in which the law is both formulated and administered, and by the capacity of the individuals to make use of their intended rights." In actual practice, this
skill may be a function not only a person's talent, but of the ways in which the services are co-ordinated and put into operation.

In order for a service to claim that it gives equality of access to all citizens, the resources must be equitably apportioned and sufficient information available to potential users about them. Warham goes further, however, and requires the absence of financial, professional, geographical and bureaucratic barriers, and of stigma or other psychological barriers to the use of the facilities.

In a study dealing with policy issues in public transportation for handicapped British Columbians, Gallagher (1973) acknowledges that the real task is not to explain why there must be equality in transportation services but rather the determining of a decent minimum. Both Gallagher and Fried agree that this minimum must be in keeping with sound ethical judgements and sustain the virtues of freedom, variety and flexibility: it should also reflect some conception of what makes a tolerable life.

The process of determining standards as outlined by Gallagher consists first in identifying what it is that transportation can and cannot provide, in identifying the cost, and then in deciding how much society will be willing to contribute. No doubt this process of arriving at a standard would be full of political controversy.

With transportation just as with health care, education and legal assistance, there must prevail the idea of a decent, fair standard, such that when it is met all that is required in the way of rights has been enforced. To demand equality beyond the minimum, would be counter to the political philosophy which is dominant in our
society: as long as society views inequalities of income and wealth as tolerable, it would be anomalous to demand that equality must rule in the transportation sector.

GOVERNMENT INVOLVEMENT

Although a number of municipalities in Canada have acknowledged the need to improve the transit system, few have recognized the particular needs of the physically handicapped. In theory, municipal public transit systems are in business to provide all of the public with basic transportation services. It may be questioned how many citizens are disqualified from use of these services because of particular routing characteristics or systems design? How 'public' is a service if it is not equally accessible? The Canadian Paraplegic Association (1973) in a recent report, argues that behind the whole problem of providing transportation facilities is the guiding principle that since transit and transportation systems are a Public Utility subsidized by taxes, then they should be available to 'The Public'! At the Canadian Council of the Disabled (C.R.C.D.) seminar in 1974, Funk asked why it is that people who pay taxes which are used to provide transportation service for some people not accorded access to the same kind of service?

One of the greatest stumbling blocks in transportation of the handicapped has been the failure to set-up groups responsible for solving the problem. Saskatchewan's experience described in Funk's
(1974) report indicates a general feeling by transportation officials that the problem is in the domain of health or welfare and that it does not relate to the ordinary transportation services because the individuals involved were handicapped. He claims that the municipal governments should be responsible for delivering and operating the service but with financial support given by all three levels of government.

During recent conferences in Saskatoon, Toronto, Ottawa and Victoria, the handicapped have voiced to the government their demand for equal access to public transportation services. Specific resolutions and recommendations came from the following meetings:

- Ministers Conference on the Needs of the Physically Handicapped, Victoria, October, 1973
- National Conference of the Physically Disabled, Toronto, November, 1973
- Canadian Rehabilitation Council for the Disabled (C.R.C.D.) Seminar, Saskatoon, December, 1974
- The Meeting of the Federal and Provincial Ministers of Welfare, Ottawa, April–May, 1975
- The B.C. Advisory Committee on the Needs of the Physically Handicapped, Victoria, January, 1974.

The following resolutions from the Toronto conference are indicative of the handicapped person's position:

Whereas, transportation is a common right of all people, and transportation services for the disabled have been shown to be inadequate, Be It Resolved:

1. That transportation for people who need special consideration be made available
2. That such transportation be no greater in cost than regular transit.
Resolutions from the Financial Security Seminar groups of the Toronto Conference made two of the following demands:

1. That the provincial government be petitioned to include in their school acts the following: that as regards physically disabled children and adults, such education is necessary to ensure a full normal life be made available and that transportation and any other special arrangements and requirements be provided by the educational authorities to ensure unsegregated normal education wherever humanly possibly.

2. In regard to actually changing the handicapped status in the Bill of Rights, it has been resolved. That the federal government be petitioned to enact an amendment to the present Bill of Rights to include in the description wherever it appears, 'of race, national origin, colour, religion or sex,' the words 'physically disabled' as it contains in its present form no reference to the rights of the physically handicapped.

In spite of these resolutions demanding equal access, there is still no legislation making this provision of transportation mandatory. However, in the United States Congress, a 1970 amendment to the Urban Mass Transit Bill took the lead by giving effective official recognition of this right:

It is hereby declared to be national policy that elderly and handicapped persons have the same right as other persons to utilize mass transportation facilities and services, that special efforts shall be made in the planning and design of mass transportation facilities so that the availability to elderly and handicapped persons of mass transportation which they can effectively utilize will be assured.

In British Columbia, James G. Lorimer, the Minister of Municipal Affairs in 1973 made the following policy statement with regard to handicapped person's special needs:
We are also very much aware of the special transportation needs of the handicapped persons, and we intend, when our programme is more advanced, to look into possible programmes for these British Columbians. We feel this is one area where community services and voluntary resources must work closely together.

While this statement expresses awareness by the government of the handicapped person's problems, it does not acknowledge the need to mandate services through a process of legislation.

At the federal level views were expressed by the Minister of Health and Welfare. He stated that transportation is seen as a provincial responsibility, even though the federal government, through grants, has made some private transportation projects possible. Again, Lalonde (1974) emphasizes the need to determine the federal role in a predominantly, provincial jurisdiction. The department also indicates awareness that more can be achieved in this field; however, they state they have no alternative at the present time but to continue within the limitation of existing legislation. This statement appears to be an indication by the government that transportation of the handicapped will continue to remain a low priority until they are pressured to meeting the demands.

In the preceding section, the importance of adequate transportation services for the handicapped and the benefits accruing from it have been discussed. Also, transportation has been viewed as a right, a need and as a means of access to various opportunities. There was limited information about the transportation of handicapped people and in fact less that pertains to deaf and blind children.
REFERENCES

CHAPTER II


CHAPTER III

PROCEDURE AND METHODOLOGY

The major concern of this study is an assessment of the transportation problems and requirements of handicapped school children. In order to research adequately this problem and achieve the objectives of this study, four basic methods of collecting information were employed.

DOCUMENTARY ANALYSIS

Documents pertaining to the Department of Education's policy and Public School Regulations concerning transportation were surveyed. In addition, the British Columbia Advisory Committee Recommendations to the Department of Human Resources and the recommendations of the Royal Commission on the Special Needs of Special Children were collected.

INTERVIEWS AND CORRESPONDENCE WITH TRANSPORTATION EXPERTS

In pursuing the objectives of this research, general information about the transportation facilities for the handicapped was obtained from various agencies concerned with the transportation of handicapped children. Letters were received and interviews were held with the following persons:
Mr. V. Parker,  Director of Transit, Bureau of Transit Services
Mr. B. Piper  Consultant, Bureau of Transit Services
Mr. J. Eastwood,  Administrative Supervisor, B.C. Hydro and Authority
Mr. P. Lawrence,  Acting Program Organizer for the Ill, Aged, and Handicapped, Vancouver Parks Board.
Mr. A. Shave,  Director of Information, Department of Transport and Communication
Mr. D. O'Connell,  Program Manager, Urban Transportation Systems, Transportation Development Agency
Mr. R. St. Denis,  Associate Director, B.C. Lions Society for Crippled Children
Mrs. K. Hudson,  Transportation Manager, B.C. Lions Society for Crippled Children, Easter Seal Transportation Service
Mr. D. Worsley,  Special Projects Assistant, Division of Integrated and Supportive Services, Department of Education
Mr. F. Flemming,  Acting Superintendent, Division of Integrated and Supportive Services, Department of Education
Mr. R. Jones,  Director, Community Programmes Division, Department of Human Resources
Mr. M. Dion,  Acting Director, Rehabilitation Services, Department of Health and Welfare.
Interviews with these agencies were designed specifically to obtain opinions about present transportation services and suggestions for its improvement. It was thought that an open-ended interview would allow for more creative contributions. Additionally, information was gathered by telephone about transportation services available to handicapped persons in and around Vancouver.

MAILED QUESTIONNAIRES

The population from which the sample for this study was drawn, consisted of children affiliated with Jericho Hill School for the Deaf and the Blind. The sample of the parents of handicapped children was chosen at random to participate in either a mailed questionnaire or a personal interview schedule.

A questionnaire for day students was designed to identify the difficulties that children with visual and hearing handicaps experience when using the transportation system and to investigate how these difficulties are handled by the parents. The instrument was divided into a number of sections and included questions about demographic and socio-economic characteristics, choice of transportation modes, capacity to perform the physical functions required by public and special transportation services and attitudes concerning possible transportation modifications.
The questionnaire consisted of 53 items; not every one was applicable to each individual (See Appendix A). It was constructed in part, from an Abt Associates inquiry (1969) carried out in Boston to research travel barriers in the public transit system.

The questionnaire was mailed complete with a stamped self-addressed envelope and a cover letter explaining the purpose of the research. A follow-up letter was also sent if no response was received from the parent after one month. Of the 96 parents who were sent questionnaires, 13 were parents of a blind child and 83 were parents of a deaf child. Parents of more than one handicapped child affiliated with Jericho Hill School were requested to answer the questions with regard to their eldest child only.

The completed questionnaires were coded and key-punched at the University of British Columbia's Computer Centre. Univariate and bivariate tabulations were conducted to examine the demographic and socio-economic characteristics and the transportation requirements of the sample population.

PERSONAL INTERVIEW SCHEDULES

A sub-sample of 30 parents was chosen to be interviewed personally; the same questionnaire was administered. Nine parents had blind and 21 had deaf children. It was hoped this would promote enriched interpretation of the main data base.
Letters of introduction were sent to the 30 parents explaining the nature and objectives of the study and indicating when potential contact by telephone for arrangements would be made.
REFERENCES

CHAPTER III

CHAPTER IV

RESULTS

QUESTIONNAIRE RESPONSE RATES

The following Tables I and II give the questionnaire response rates. Difficulty in making contact was in part due to the school's policy to keep only the current school session's record of addresses up-to-date. The low response rate was due possibly to the fact that contact was attempted during the month of August when many families are on vacation.

QUESTIONNAIRE FINDINGS

The highlights of the results are as follows:

Population Characteristics

1. Data were collected on 61 children which comprised approximately 48% of the school's day student population.

2. Of the two handicapped groups represented, the blind population consisted of 16 (26%) of the sample, while the deaf population of 45 accounted for 74%. The most recent national figures presented in a Statistics Canada Report (1976: 6) show a similar
### TABLE I

Distribution of the Number of Questionnaires Mailed and Returned by Handicap

<table>
<thead>
<tr>
<th>Handicap</th>
<th>Number Mailed</th>
<th>Number Returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaf</td>
<td>83 (86%)</td>
<td>35 (74%)</td>
</tr>
<tr>
<td>Blind</td>
<td>13 (14%)</td>
<td>12 (26%)</td>
</tr>
<tr>
<td>Total</td>
<td>96 (100%)</td>
<td>47 (100%)</td>
</tr>
</tbody>
</table>

### TABLE II

Distribution of the Number of Questionnaires Personally Administered by Handicap

<table>
<thead>
<tr>
<th>Handicap</th>
<th>Number Telephoned*</th>
<th>Number Consenting to be Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaf</td>
<td>21 (70%)</td>
<td>10 (71%)</td>
</tr>
<tr>
<td>Blind</td>
<td>9 (30%)</td>
<td>4 (29%)</td>
</tr>
<tr>
<td>Total</td>
<td>30 (100%)</td>
<td>14 (100%)</td>
</tr>
</tbody>
</table>

*18 telephone calls were completed.
ratio of children with hearing impairments to visual impairments receiving special education of 5.9 to 1.

3. The sample comprised of 35 boys and 26 girls which represented a sex ratio of 1.3 to 1. This is comparable to the Statistics Canada (1976: 6) figures which report a sex ratio of 1.3 to 1 for children with similar handicaps.

4. The children's ages range from 6 to 19 years. Fewer blind children were represented in the 13 to 19 age bracket because the blind school ends at grade 8.

**Family Situation**

1. The average size of the 61 families was 5 members. This figure is larger than reported in the 1971 census (Statistics Canada 1974: 169) for the average British Columbia family of 3.5 members and the average Canadian family of 3.7 members. Twenty-five percent of the parents indicated they had more than one handicapped child in their family.

2. Thirty-two of the 61 families resided in Vancouver and 28 in the Lower Mainland. Nineteen parents reported having to change their place of residence at least once to accommodate their child's disability. Most changes involved a move from other parts of British Columbia to the Lower Mainland which is the centre of treatment and special education for the handicapped.
3. Nine (15%) of the parents did not respond to the question concerning their family income. Of the remaining 52 parents who responded, the average income for 1974 was between $10,000 and $14,999. The 1971 census (Statistics Canada, 1974: 225) shows the average British Columbian's family income to be $11,212 and the Canadian family income to be $10,368.

4. Thirty-eight parents responded that they receive financial assistance for their child's transportation. The School Boards in the district where Jericho Hill School reside pay the parents grants, who in turn sign these over to the Easter Seal Society.

5. Fifty-three parents indicated they owned one or more motor vehicles for transportation purposes. Four of the 8 parents without their own private transportation reported that they used the public bus as their principle source of transportation. Nineteen parents indicated that their child often lacks transportation restricting the places to which they have access. Table III identifies the trips the parents feel their child is prevented from making: these are mainly related to recreational and social activities.

Level of Functioning of Sample Population

General questions were asked about overall limitations to mobility.
<table>
<thead>
<tr>
<th>Trips</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shopping</td>
<td>1</td>
</tr>
<tr>
<td>Medical</td>
<td>1</td>
</tr>
<tr>
<td>School</td>
<td>1</td>
</tr>
<tr>
<td>Entertainment</td>
<td>5</td>
</tr>
<tr>
<td>Social Visit</td>
<td>3</td>
</tr>
<tr>
<td>Recreation</td>
<td>15</td>
</tr>
<tr>
<td>Don't Know</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>
1. **Special Aids:** Dependence on mechanical mobility aids is one indication of the degree of mobility limitations of the children. Over half used no special aids to help them get around outdoors. Of those with some requirements, most reported using either a cane or the aid of another person.

   Although there is no comparable data for a larger population, the sample appears to be quite mobile with no stated need for wheelchairs which would prove to be a problem with public transportation.

2. **Transportation Limitations:** Parents were asked to answer questions about their children's problems and limitations in using certain modes of transportation. The results are related below and displayed in Figure 1.

   (a) Forty-six (75%) of the parents stated their child could walk easily without the help of another person. Difficulty was reported, however, in the use of public transportation and 24 (39%) of the children required assistance. This percentage is so high probably because of the lack of certain travel skills of sight identification and oral communication in the sample population. In comparison, only 6 (10%) of the children required assistance on the Easter Seal bus. Reasons for this difference are probably due to the Easter Seal operating a door-to-door service and the drivers being trained for
Figure 1  Limitations in the Use of Certain Transportation Methods

Note: Other refers to ferry and airplane travel
and familiar in dealing with certain handicaps. The volunteer and parent drivers were then identified as providing a better travel service which required less assistance than if a bus or taxi was taken. Ferry and airplane travel reported under 'other' column were by several parents, identified as modes of transportation requiring assistance.

(b) Parents were asked several questions about the physical functional performance of their children while using buses and/or taxis. The results are displayed in Tables IV and V.

**Bus Usage:** In 7 of the 10 functional activities over 50% of the blind children experienced some difficulty. Not surprising, 10 of the 16 blind children had difficulty detecting the destination of the bus. A major difficulty experienced by 10 of the blind children had to do with locating a vacant bus seat.

Deaf children encountered difficulty in both obtaining and asking for assistance or information from the bus driver. Twenty-five (55%) of the deaf children experience either difficulty or required the help of another person in order to obtain the assistance they required. Thirty one (68%) of the deaf children found problems when they needed to ask the bus driver for assistance, for example, to ask for a transfer slip. These problems are not surprising given that deaf children often have communication difficulties. If a deaf child gives no indication to the driver that they have a hearing
<table>
<thead>
<tr>
<th>Bus</th>
<th>Unassisted</th>
<th></th>
<th>With Assistance</th>
<th></th>
<th>Not Applicable</th>
<th></th>
<th>No Response</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Easy</td>
<td>Difficulty</td>
<td>Easy</td>
<td>Difficulty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Blind</td>
<td>Deaf</td>
<td>Total</td>
<td>Blind</td>
<td>Deaf</td>
<td>Total</td>
</tr>
<tr>
<td>detect approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>5</td>
<td>33</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>5</td>
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<td>3</td>
<td>4</td>
<td>1</td>
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<td>3</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>stand waiting</td>
<td>45</td>
<td>7</td>
<td>38</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>locate entrance</td>
<td>44</td>
<td>6</td>
<td>38</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>go up and down stairs</td>
<td>50</td>
<td>12</td>
<td>38</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td></td>
</tr>
<tr>
<td>locate vacant seat</td>
<td>44</td>
<td>6</td>
<td>38</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stand holding grip</td>
<td>43</td>
<td>8</td>
<td>35</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
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<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>detect destination</td>
<td>41</td>
<td>4</td>
<td>37</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td>pull cord</td>
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<td>1</td>
<td>4</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>obtain assistance</td>
<td>27</td>
<td>7</td>
<td>20</td>
<td>4</td>
<td>-</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ask driver for assistance</td>
<td>20</td>
<td>6</td>
<td>14</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>1</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE V

**Taxi Usage by Level of Functioning**

<table>
<thead>
<tr>
<th>Taxi Travel</th>
<th>Obtaining A Taxi</th>
<th>Going to Proper Destination</th>
<th>Leaving the Taxi</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unassisted, Easy</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Unassisted, With Some Difficulty</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Easy, With Assistance</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Some Difficulty With Assistance</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Non-Response</td>
<td>48</td>
<td>50</td>
<td>51</td>
<td>61</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61</strong></td>
<td><strong>61</strong></td>
<td><strong>61</strong></td>
<td><strong>61</strong></td>
</tr>
</tbody>
</table>
impairment he may perceive the child to be creating a
nuisance. The hearing aid when worn is an excellent
identification mechanism. However, not all deaf
children who own hearing aids wear them: in one personal
interview a mother explained that because her son was
profoundly deaf and did not receive any benefit of sound
from the device, he refused to wear it even though he knew
he would probably encounter fewer problems.

**Taxi Usage:** Taxi usage was relatively low among the
children. Travel by taxi was used by 7 (16%) of the deaf
and 2 (13%) of the blind children. This may be partly
attributed to the child's age, nature of the handicap and
the cost of taxi travel. The children who do travel along
by taxi find there are various problems. Table V sheds
some light on the nature of the difficulties.

**Transportation to School**

Most handicapped children must be provided with transportation
if they are to attend school. It is essential in large urban communi-
ties where special schools and programmes may be situated at some distance
from the child's residence and where heavy traffic makes travelling
difficult.

1. **Distance:** As shown in Figure 2, 32 of the 61 children in the
sample live approximately 11 or more miles from their school.

It may be remembered that 19 parents changed their residence
Figure 2
Distance from Home to School

NUMBER OF CHILDREN

DISTANCE

0
10
20
30
40

0-4 blocks
5-8 blocks
9 blocks-
1 mile
2-5 miles
6-10 miles
11 miles-
7 & over

Deaf
Blind
to lower mainland locations from various points throughout British Columbia and Alberta because of their child's handicap and the need for special education. Figure 2 illustrates that this change of residence did not necessarily mean a move for the family to within walking distance of the child's school, but resulted in relocation to the outskirts of Vancouver where the taxes are lower and the houses are cheaper than in other districts. Several parents explained that they moved close to the school to ensure their child could still live at home and not in the dormitory at Jericho Hill.

2. Mode of Transportation from School: The type of transportation most frequently used is shown in Figure 3. Multiple responses were possible in answering this question. In this way a frequency count of the type of transportation most commonly used was represented. The Easter Seal Transportation Service which is under contract to Jericho Hill School and the Vancouver School Board was the most frequently used method of transportation, followed by the public bus and parent drivers. Cross-tabulations of mode by age and mode by income were prepared and the data are presented in Tables VI and VII. Age may be a factor in determining which mode of transportation is to be used as no very young children in the 6 to 9 year age group either walked home from school or used the public bus. In contrast, the frequency in the older age groups to use either
Figure 3 Mode of Transportation from School to Home

Note: *Other includes the Optimist Hearing Handicapped Bus
**n refers to the number of responses
TABLE VI
Age by Mode of Transportation

<table>
<thead>
<tr>
<th>Age Group (years)</th>
<th>Walk</th>
<th>Public Bus</th>
<th>Easter Seal Bus</th>
<th>Taxi</th>
<th>Parent</th>
<th>Other¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-9</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10-15</td>
<td>2</td>
<td>9</td>
<td>10</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>16-19</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>over 19</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>6-9</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10-15</td>
<td>-</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>-</td>
<td>-</td>
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<tr>
<td>16-19</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>over 19</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: A child may have used more than one mode of transportation from school.

¹Other refers to Optomist Hearing Handicapped Bus.
<table>
<thead>
<tr>
<th>Income</th>
<th>Walk</th>
<th>Public Bus</th>
<th>Easter Seal Bus</th>
<th>Volunteer</th>
<th>Taxi</th>
<th>Parent</th>
<th>Friend</th>
<th>Another Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to $ 4,999</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$ 5,000-$ 9,000</td>
<td>-</td>
<td>7</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$10,000-$ 14,000</td>
<td>3</td>
<td>3</td>
<td>12</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$15,000-$ 24,999</td>
<td>-</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>-</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>$25,000-$ 39,999</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$40,000 and up</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-Response</td>
<td>-</td>
<td>3</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: In several of the income brackets multiple responses to means of transportation were given.
the public bus or walk home was 19 for the deaf children and 3 for the blind children.

The data presented in Table VII does not indicate that income is a factor in the mode of transportation employed.

3. Time in Transit: One of the difficult problems particularly in large urban communities, is that of planning the transportation routes so that children are not forced to spend an excessive amount of elapsed time travelling.

Jericho Hill School, like other schools in the Vancouver area, begins classes at 9 a.m. and finishes at 3 p.m. How early a child must leave home in the morning or how late it is when he or she returns depends on various factors such as the distance from school, the type of transportation employed, the route the vehicle travels and the traffic conditions. Several questions pertained to this important area. The results were as follows:

(a) Figure 4 shows that 28 of the children depart for school before 7:30 a.m. Figure 5 shows similar amounts of time were spent in transit returning home. In order for these times to be meaningful it is assumed that the transportation leaves soon after the school day is finished. Easter Seal reported they try to arrange for their bus and vans to be at Jericho Hill School and other schools when the classes are dismissed.
Figure 4  Time of Departure for School
Figure 5  Time of Arrival Home from School

Note: Other refers to one child who arrives home from school at various times.
Table VIII shows the results as relatively consistent in that the longer distances required lengthier travel time.

4. Travel Costs: Parents were asked to identify the cost of their child's transportation to school and the organization who payed for it. The data is presented in Figures 6 and 7.

(a) These results are disparate and not statistically significant, the reason for this being that many of the parents are not absolutely sure of the school transportation costs because funding to the parent may vary for each mode of transportation their child uses. This results in some confusion and it remains unclear what individual expenses are to the parents. If special transportation services are not available, the parent is eligible to receive a Transportation Assistance Allowance. Parents whose children ride the Easter Seal bus are paid grants by the school boards and they in turn pay the Easter Seal Society. Children who ride the public buses are eligible for Transportation Assistance Allowance, the cost of which is shared between the school board and the provincial government. Thus, no parent need pay for transportation costs.

(b) Parents responded in equal proportions that the responsibility to arrange transportation to school should be left to the provincial government, the school and the parents.
TABLE VIII
Distance from School by Time in Transit

<table>
<thead>
<tr>
<th>Time</th>
<th>0-4 blocks</th>
<th>5-8 blocks</th>
<th>9 blocks-1 mile</th>
<th>2-5 miles</th>
<th>6-10 miles</th>
<th>11 miles &amp; over</th>
<th>Don't Know</th>
<th>Other</th>
<th>Non-Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1/2 Hour</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1/2 Hour</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1 Hour</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>1</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>1 1/2 Hours</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>15</td>
<td>-</td>
<td>-</td>
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<td>2 Hours</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Over 2 Hours</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Don't Know</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>
Figure 6
Cost of One Return Trip to School

NUMBER OF CHILDREN

COST

0 5 10 15 20 25 30

- No Cost
- 10¢ - 25¢
- 26¢ - 50¢
- $1 - $1.00
- $1.01 - $1.50
- $1.51 - $3
- $3.01 - $5
- Don't Know
- Non-Response
Figure 7  Organizations Identified as Those Who Pay School Transportation Costs
Transportation to Medical Facilities

The survey presented a set of open questions dealing with the accessibility of transportation facilities to medical care centers.

The findings are reported below.

1. Fourteen (23%) children were reported to have received special therapy or counselling.

2. Eighteen children, 12 of whom were deaf, went to regular medical appointments at their physicians' offices.

3. Most of the children who took part in therapy or counselling sessions also received their classes of instruction at Jericho Hill School and thus the problem of transportation was usually avoided. Transportation, however, to regular medical check-ups at the physician's office was required and normally provided by the parents using either their own private transportation or the public bus.

4. Medical treatment was being received by 4 (25%) of the blind population and 10 (22%) of the deaf population with an average length of the treatment reported between 1 and 2 years. Eight parents responded that they preferred the treatment to be given at school.

The actual response rate to the questions in this section was very low. The parents identified few problems in arranging for their child's transportation to medical services.
Transportation to Recreational Activities

For some handicapped children it may be necessary that special programmes be organized and transportation arrangements to these activities be made available if they are to participate actively in recreation.

In the survey, a set of questions were asked about the children's participation in recreation. The highlights of the findings are reported below.

1. Forty-one children of whom 11 were blind and 30 were deaf, participated in recreational programmes.

2. Sponsors of these programmes included the community, school, organization, opportunities for Youth projects and parents.

3. Fifteen of the 41 children participating in recreation normally had their transportation arranged and the mode most often used was the family car. Other methods of travel included walking, public bus, the Easter Seal bus, volunteer drivers and the Jericho Hill School bus.

4. Sixteen parents reported that the estimated costs of a return trip to a recreational activity ranged from 25¢ to $5.00. Seven parents responded they didn't know the cost and 19 parents indicated there was no cost involved.

5. Non-participation in recreational activities was also examined. The results are presented in Table IX. These indicate that transportation plays a minor part in the non-participation of the respondent's children in recreation programs.
TABLE IX
Factors in the Non-participation of the Sample Population in Recreation

<table>
<thead>
<tr>
<th>Factors</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Transportation</td>
<td>4</td>
</tr>
<tr>
<td>Cost</td>
<td>2</td>
</tr>
<tr>
<td>Don't Know of Any Recreational Activities</td>
<td>10</td>
</tr>
<tr>
<td>Child is Not Capable</td>
<td>1</td>
</tr>
<tr>
<td>Don't Know</td>
<td>2</td>
</tr>
<tr>
<td>Other(^1)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
</tr>
</tbody>
</table>

\(^1\)Other refers to two parent's comments that the children arrive home too late to participate and one parent stated that her son had no friends in the community to attend the programmes.
Deaf Drivers

Having looked at the various modes of transportation, questions were directed toward finding out what problems deaf student drivers experienced when obtaining a licence and insurance. The highlights of the results are as follows:

1. Of the 11 deaf students in the 16 years of age category eligible to obtain a valid driver's licence, 5 reported having a valid licence. Two responded they were unable to get their driver's licence due to the nature and degree of their handicap.

2. Only one of the 5 student drivers reported having had any problems in obtaining car insurance.

3. One student reported having received financial assistance to obtain a driver's licence.
EXISTING TRANSPORTATION SERVICES IN VANCOUVER

This section attempts to show the results of the survey of transportation services undertaken in the summer of 1975.

Special transportation services for the handicapped in Vancouver are limited. The car, taxi and public transit system are still the main modes of transportation used by most of the handicapped population, particularly the less severely handicapped groups such as the blind and deaf.

A brief survey of special services associated with transportation appears below. A discussion of the adequacy of these services will be presented in the next chapter.

Survey of Transportation Services in Greater Vancouver, 1975

Airlines:

Air Canada --

- Provides accommodation for wheelchairs, seeing-eye dogs and the walking disabled
- Prefers individuals to have own attendant
- No special rates are given

Canadian Pacific Air --

- Provides assistance to individuals who require assistance
- No special rates are given
Pacific Western Airlines —
• Provides a carry-on wheelchair for on-plane
• Handles wheelchairs, stretcher cases, the walking disabled and the blind
• Individual must provide own attendant

Ferries:
British Columbia Ferry System —
• Provides elevator service, and ramps are available
• If assistance is required, arrangements must be made in advance
• No special rates are given

Taxis:
Black Top Cab —
• Provides service for wheelchair storage but must notify wheelchair service first
• An extra 20 minutes wait is required during busy hours
• Driver may refuse to lift a person who is too heavy

MacLures Cab —
• Provides service for wheelchair storage and will take seeing-eye dogs
• Must phone at least 20 minutes in advance and specify wheelchair use
• Driver may refuse to lift if person is too heavy

Yellow Bird Taxi —

• Provides service for handicapped only
• Operates from 9:00 a.m. to 5:00 p.m., Monday through Friday
• Reservations are required
• Mileage limit — 10 miles from point of pick-up
• Trip limit — two pick-ups per day

Yellow Cab —

• Provides service for wheelchair storage and takes seeing-eye dogs
• Must reserve ahead and specify wheelchair
• Driver may refuse to lift if person is too heavy

Organizations:

Volunteer Bureau of Greater Vancouver —

• Provides transportation services by referral from a social worker of an agency
• Service provided for any trip purpose
• No cost to users

B.C. Lions Society for Crippled Children - Transportation Services —

• Provides 3 services:

  (i) Scheduled services for transporting children to school (paid for by the provincial government and school boards)
(ii) Scheduled service transporting handicapped children to rehabilitation hospitals, schools, children's treatment centers, adult workshops and preschool centers (paid for by the agency)

(iii) Individual and group services for adults -- cost is $1.50 for a one way trip within a radius of 3 miles -- extra charge after 3 miles

Deltassist Society --

• Transportation service to medical and treatment centres for handicapped residents of Delta

North Shore Transportation Service --

• Provides transportation for the elderly and the handicapped who are unable to use public transportation. Services are mainly for hospital therapy, adult day care centers and doctors' appointments. Visiting and shopping have low priorities and are fitted in when openings are available. Serves only the North Shore area, from Horseshoe Bay to Deep Cove

Surrey Community Resource Centre --

• Provides transportation services for Senior Citizens and the handicapped for medical appointments
Marpole-Oakridge Services for Senior Citizens and the Handicapped —

- Transportation is available for medical and social programmes appointments

FISH, Richmond

- Provides neighbourly help to people needing assistance such as emergency family or child care, housework and transportation
- Serves Richmond only

White Rock Community Aid —

- Provides a transportation service to medical appointments and some transport to other community agencies for Senior Citizens, the physically and mentally handicapped and low income people
- A 3 day notice is preferred

British Columbia Hydro Bus Passes —

- Persons on Handicapped Persons Income Assistance (over 18 years of age) may purchase a bus pass for $5.00 for all or part of a 6 month period
- Travel is free in the Greater Vancouver area and the first 2 fare zones of the B.C. Hydro Suburban Line Service (Surrey, Delta, and White Rock)
Laurel House --

- It is for Autistic Children
- Operates one station wagon

Jericho Hill School --

- Operates one bus, one van and one station wagon
- Uses taxi service for medical appointments of residential children and the Easter Seal Transportation Service for day student transportation

Pearson Hospital --

- Operates one converted bus which is capable of carrying 13 wheelchairs and 4 passengers
- Used for Pearson Hospital's patients for sightseeing and other outings

Children's Hospital --

- Operates two cars with one hospital driver and one volunteer driver

Vancouver General Hospital --

- Out-patient Department has transportation available for anyone with mobility problems
- Operates one car driven by auxiliary volunteers
- Referrals are based on doctors' recommendations
GOVERNMENT INVOLVEMENT IN SPECIAL TRANSPORTATION

The survey of several experts involved with transportation services in the Vancouver area revealed the following information (see page 20).

Parker (1975) stated that the Bureau of Transit has not been able to progress with a specialized public service like that of Easter Seal. He explained that because there was no policy concerning the transportation of handicapped persons, the best immediate solution would be to expand the Easter Seal Service. He went on to suggest that a central clearing agency be set-up to examine all demands and these could be met by specific agencies. Both Eastwood (1975) and Piper (1975) were more specific and felt it was up to the Department of Human Resources to take a systems view of responsibility for handicapped people and to coordinate all departments involved. Eastwood noted that there are no plans whatsoever at B.C. Hydro concerning special services or special design plans for the handicapped. Lawrence (1975) stated transportation is a public responsibility and that B.C. Hydro should be more involved in this area of concern. The biggest problem, in terms of responsibility, according to Lawrence, is the fragmenting of departments of Health, Transportation and Human Resources.

Shave (1975) explained in the following letter the extent of the provincial government's involvement and policies concerning the handicapped:

With regard to our department, (Department of Transport and Communications) we provide special washrooms for paraplegics on all stretch ferries as well as in onshore trailer units, and
in addition, we make no distinction in granting driver's licences, particularly where hand controls are concerned.

Municipal Affairs is presently designing foot passenger ferries for Burrard Inlet which will be accessible for handicapped, and I understand their Transit Bureau is including provisions for the handicapped in all its undertakings with the exception of public buses.

In the Department of Human Resources, a sum of $700,000 was spent last year for assisting the handicapped and senior citizens in British Columbia. A total of 16 separate services were funded which includes a $40,000 grant to the Easter Seal Society which operates the "bunny buses."

The Department of Health provides the handicapped with transportation for education and vocational accomplishments, and I understand the Department of Education in conjunction with local school boards is also providing transportation to such students at a flat rate.

As far as the public services is concerned, the Department of Public Works is currently co-ordinating a survey of government buildings both permanent and rental, in order to ascertain what the existing facilities are (including facilities for handicapped workers) and what will be required in future.

In the preceding chapter, findings taken from the responses of 61 completed questionnaires were highlighted and displayed. In addition, the results of the survey of transportation services in Vancouver and the survey of experts involved with transportation were reported. The following chapter will present a discussion of these results in greater detail.
REFERENCES

CHAPTER IV


Parker, V. Personal Communication, August 13, 1975.

Piper, B. Interview, Vancouver, June 17, 1975.


Lawrence, P. Interview, Vancouver, August 12, 1975.

Shave, A. Personal Communication, August 8, 1975.
CHAPTER V

DISCUSSION OF RESULTS

The need to provide increased educational opportunities for deaf and blind children has been met through the creation of special schools staffed by specially trained teachers.

Transportation of children to these schools is a problem for administrators, and planners as well as for parents. While a separate transportation system is not necessarily required the subject must be considered by the school administrators in their initial programme planning.

Throughout the Greater Vancouver area getting children to and from school is a sizable task: it is a major concern of school districts. Should the children use public transportation? Should the parents be expected to serve as chauffeurs? There are not only the problems of arranging special transportation but also difficulties of getting the child to and into the vehicle; travel time can also be excessive.

The questionnaire sought to quantify the magnitude of these specific problems and others having to do with functional limitations involved in using public transportation, financing trips to recreational and medical facilities and the general adequacy of the present transportation services.
Population Identification

In selecting only deaf and blind handicaps to make up the sample population, it was realized that certain problems and needs associated with severe physical disabilities (for example wheelchair dependence) would likely not be accounted for in the results and in subsequent recommendations and plans for improved transportation facilities. However, in spite of the apparent mobility of those with sensory disabilities, it was found that one-third of the sample population either experienced difficulty or required assistance in using the public bus (see Figure 1). Perhaps many of the problems and risks for those persons with severe physical disabilities also exist for less severely handicapped deaf and blind children. This study's results are comparable to those of the Vancouver School Board--Ad Hoc Committee's assessment of the school transportation service in the areas of safety requirements, supervision and time spent in transit to and from school.

Transportation Problems and Requirements

How do parents, the school board or transportation operators determine whether the transportation system is adequate? One way may be to identify the level of functioning of the population and to adjust the physical aspects of the mode of transportation being used. Adequacy may also be ascertained by answering the following: how safe is the vehicle; is there sufficient supervision on the bus or vans;
how long before school begins do the children have to leave home; how long are they in transit; how many children have to stand on the bus? Accessibility may be affected by the location of the school building. Jericho Hill School, situated on Point Grey, is a poor location because the largest concentration of children attending the school live in eastern Vancouver. School districts who use Jericho Hill School are committed to transporting many children who may, in some instances, have been able to walk to school or who may have been able to find more comfortable alternate transportation to a neighbourhood school. Expenditures for this purpose add nothing to the educational programme and only reduce the amount of funds for it. Thus, it seems only reasonable that administrators and planners give thought to the nature of the transportation programme that will be required when deciding the location of a new school.

Parents of blind and deaf children acting as respondents provided sufficient information for an assessment of the transportation problems and requirements to be made. In the following discussion a number of items will be looked at more closely. These include travel time, bus safety, transportation operators, and the policy and legislation regarding school transportation.

**Travel Time.** Special school transportation is the method of choice to concentrating sufficient pupils at one centre to increase the size of classes, thus making it possible to have a teacher for each grade and otherwise improve the educational opportunities for
the child. The difficulty with this is that in large urban communities like Vancouver children are often forced to spend long periods of time in travelling to and from school. This is especially fatiguing for the young handicapped pupils. For many children even a short ride in a crowded bus may precipitate outbreaks of excitement and overstimulation and yet some of the children may spend two to four hours each school day riding the school bus. This increased travel time also cuts into the time available for school work and/or time available for recreation.

The Vancouver School Board's Committee on the Special Needs of Special Children was specifically concerned with reducing the time children spent in travel. They noted that after one-half hour, the incidence of problems with handicapped children rises greatly and after one hour, the incidence of problems with all children sharply increases. It was agreed that one hour was maximum in travelling time, with considerations of security and safety features as a guideline. It may be recalled that 45 (74%) of the children left home for school before 8 a.m. Of these 45 children, 28 left home before 7:30 a.m. Nearly half of the sample population were required to spend three or more hours on the school bus or van each day.

The Chud Inquiry (1974: 9) of Jericho Hill School also found problems with the length of travel time and made the following recommendations:
The present system should be critically reviewed by the Administration at Jericho Hill School and improved to the extent possible within the existing conditions. No child, particularly blind children, should be required to travel more than one hour on the bus. Every possible resource must be brought to bear in order to make this possible. In the first instance, government departments must make available additional subsidies for children living far from school.

In the course of the inquiry several solutions were offered in response to the present conditions where some of the children must spend excessive amounts of time in transit. One solution calls for the use of mini-buses taking fewer children on a more direct route. Integrating other bus systems taking children to and from facilities for the handicapped is another possible proposal. Lastly, it was suggested that all buses transporting children to and from school facilities (including private schools) could constitute a bussing pool which could be programmed to deliver the most rational and expedient form of transportation for all children being bussed around in Vancouver.

In a study by Cruickshank and Johnson (1958) on the education of exceptional children, they suggest in some cases it might be expedient to plan 'feeder' routes which will pick-up children in different areas and bring them to a prearranged location where they can be transferred into a larger coach which will then take them to school. This system they claim would overcome the excessively long ride of the first child picked up and the last to be dropped off.

Yuker's (1967) report on the transportation of the physically handicapped students draws attention to a way by which travel time can
be shortened by scheduling classes after peak traffic hours, for instance, 10 a.m. to 4 p.m. This scheduling may be necessary in large urban communities such as Vancouver where special schools like Jericho Hill School are located some distance from the child's home and where heavy traffic makes travelling difficult and time consuming. One disadvantage is that it may interfere with the children's recreational activities as they will arrive home at an even later hour.

The Provincial Department of Education also has recognized problems in the Lower Mainland area regarding transportation for handicapped children. Worsely (1975) notes that the problem could be solved in two ways, either by locating special education facilities in the areas where the children live, or by operating many small vans on more direct runs. The problem with the first solution is that the largest concentration of handicapped school children is in East Vancouver where there is a shortage of classroom space. The Department of Education has received suggestions that they should fund brand new facilities for handicapped in this area, but no action has yet been taken in this direction. Worsely reports that the problem with the second solution is the funding. However, due to the constant complaints by the parents and other concerned citizens the provincial government has involved itself in further investigation on the problem of travel time. The Department of Education recently requested a report to be prepared by the British Columbia Lions Society for Crippled Children (1975) on the special transportation for the Vancouver School Board. Hudson, the author of the report
stated one major aim of the report was to find a way to reduce travelling time spent on a school bus to a maximum of forty-five minutes. She identified seven problems which affect the length of travelling time on the school bus and they are as follows:

1. Traffic -
   (a) Buses are travelling at the peak of rush hour traffic
   (b) Time is consumed in trying to cross busy streets and intersections
   (c) Door-to-door pick-up is often hampered by blocked streets and lanes
   (d) Fall and winter weather conditions have a serious effect on the flow of traffic.
   Every year the traffic problem becomes worse.

2. Hours and Destinations -
   School hours 9:00 to 3:00 p.m. and 9:00 to 2:00 p.m.
   The moving of 301 children in the a.m. to be at school for 9:00 a.m.
   Not being able to drop children at Oakridge School before 8:45 a.m.

3. The number of special schools children attend (31) are scattered in all four corners of the City. Many children living extreme East attend school which is located extreme West and vice-versa. This situation is undoing any good the child might have received by attending this special class.

4. These children who travel on Easter Seal buses would not need special transportation if they did not have problems in learning, social or physical, and many need help to get on and off the buses which is another time-consuming factor to consider.

5. Children not being ready for the bus -
   Two minutes lost on fifteen children works out to one-half hour travelling time.

6. Lack of communication between all parties concerned - parents, schools, School Boards, transportation, etc., especially the parents when a child's behaviour becomes a problem.
7. Cost - A transportation programme is a very costly business and is planned on the basis of what monies are available; labour, of course, taking the largest portion of the funds.

Hudson's report suggested the following methods to accomplish the task of reducing the time spent in transit by handicapped school children:

1. using extra buses of the mini type;
2. staggering school hours;
3. trying to place children who need special learning schools in the area where they live, thus eliminating the need for transportation; and
4. establishing more centralized destinations whereby eliminating the need for children travelling more miles than needed.

The report stressed that although the employment of these methods would decrease the amount of time in travel, it would at the same time increase the cost to operate a transportation system this scale by an estimated $183,860 or 123.52% for a full school term. For a detailed breakdown of the estimated costs see Appendix B. Hudson indicates that if the Easter Seal Transportation system were to solve these problems, there would still be a number of children, such as the blind and deaf attending Jericho Hill School, who would receive no benefits from any changes made. She claims the principle reason for this is the location of the school in relation to where
the children reside. She suggests that special individualized transportation would be needed for the children in this category. It is difficult to comprehend, however, that the employment of mini buses and the re-routing of the Vancouver School Board service would not in some way improve the travel conditions of the blind and deaf school children travelling to Jericho Hill Schools. It is apparent that under the present Easter Seal transportation system, unless the schools offering special programmes for exceptional children are not centralized near the transportation operators choice of a central transfer point, in this case G.F. Strong Rehabilitation Centre, both the travelling time and cost will continue to increase. This action would neither be ideal, practical or appropriate.

Transportation Operators. Both the Vancouver School Board and the Department of Education contract out to The British Columbia Lions Society for Crippled Children who operate the Easter Seal Transportation Service.

The Easter Seal Society operates three transportation services: an individual service offering a taxi-like service to handicapped children and adults by appointment; a scheduled service transporting handicapped children to schools for the school board; and another scheduled service transporting handicapped children to rehabilitation hospitals, schools, treatment centres, and adult workshops.

In a study prepared by Gallagher (1972) for the Bureau of Transit, he found the school bus service to be the better developed
of the three services presently being offered. The school bus service was also found to be the most economical system per seat/mile to operate because: (a) the volume of traffic is great; (b) the demand is daily; (c) and the route patterns are stable; and (d) destinations are concentrated. He goes on to point out that the school service routes in the system make a strong east-west pattern. Because virtually all treatment facilities for the handicapped are concentrated in the area west of Cambie Street, the system has been designed, for the most part, to transport children from their homes in the east end of Vancouver to facilities in the western areas of the city.

In 1975 this scheduled service picked up approximately 730 children every day and transported them to 50 different destinations in all sections of the Lower Mainland. Perimeter bus routes commencing as far east as Fort Langley, Coquitlam, Delta and Surrey using smaller vehicles met at prescribed transfer points within the city. Three hundred and twenty of these children were affiliated with the Vancouver School Board while children from Jericho Hill Schools made 57 daily return trips, 3 one-way trips and 9 weekend trips by Easter Seal. The questionnaire results indicated the Easter Seal Transportation Service as the most frequent mode of transportation used by the sample population when travelling from school to home.

**Costs.** The costs of this school transportation service are covered by the individual school boards, with whom the society negotiates contracts. In British Columbia, there is a cost sharing
agreement in effect between the provincial government and the school boards, whereby, the government pays 15% of the cost and the individual school board which is municipally funded, pays 85%. As Jericho Hill School is a provincial institution, the school boards in the districts where Jericho Hill School students reside, pay the parents grants, who in turn sign them over to the Easter Seal Society as payment. For the year ending December 31, 1975, the following monies were received by the parents and dispensed to the Easter Seal Society:

<table>
<thead>
<tr>
<th>District</th>
<th>Name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Richmond</td>
<td>$6,150.00</td>
</tr>
<tr>
<td>39</td>
<td>Vancouver</td>
<td>28,000.00</td>
</tr>
<tr>
<td>40</td>
<td>New Westminster</td>
<td>1,570.00</td>
</tr>
<tr>
<td>41</td>
<td>Burnaby</td>
<td>4,780.00</td>
</tr>
<tr>
<td>44</td>
<td>North Vancouver</td>
<td>2,340.00</td>
</tr>
</tbody>
</table>

The cost of the Vancouver School Board's contract with the Easter Seal Transportation Service for the 1975-76 school year was $148,841. For a breakdown of these see Appendix B.

In addition to the transportation provided for by the Easter Seal Transportation Service, Jericho Hill School operates several of its own vehicles—one 25 passenger bus, one 14 passenger bus, one van and one station wagon. These vehicles are government owned, and are maintained at the School. Occasionally additional services are
provided by hired buses and the entire cost is paid for by the provincial government. The annual budget allotted to Jericho Hill School for the operation of their transportation programme in 1974/1975 was $1000.

**Bus Safety.** In British Columbia, the individual school board is responsible for their districts school transportation programme including school bus safety. The parents noted their concern in the questionnaire that adequate safety standards were not being met. They specifically note the lack of safety belts, little or no supervision, the overloading of children at certain times, and the fear that some drivers are too old to meet with emergencies. Given that the individual school board is responsible for bus safety it is up to them to set certain safety standards to which their contracting transportation operator must be made to adhere.

The selection and orientation of bus drivers is important for the safety of all school children. In a study dealing with the transportation of handicapped children to recreational activities, Pomeroy (1964) suggests that character and resourcefulness along with the ability to drive should be considered when hiring a driver. To ensure safe driving, a person, to qualify, must meet certain minimum requirements which include such factors as health, age, first aid knowledge, and driving skills.

The responding parents indicated that the problems that arise in the transportation of the handicapped children are, in many
ways different from those of non-handicapped children. In a report on the methods of handling handicapped child on buses Mandel (1975) suggests that if there are no special transportation devices on the bus, the driver should avail himself of any information on the handling of the children under ordinary conditions and every child should have personal identification as to their special needs. Both the parents in the survey and the members of the Committee on the Special Needs of Special Children questioned the lack of proper supervision on the school buses. Due to the additional cost of placing attendants on the school buses, the Easter Seal Transportation Service have employed only two attendants which are used on the large 50-passenger buses. Bus attendants would be an aid to both the bus driver and children in that their main duties are:

1. to load and unload the multiply handicapped children;
2. to maintain control of the children while in transit (operation);
3. to look after the needs of the children; and
4. to assist the driver in emergency situations.

The Easter Seal Transportation Service requires that their drivers have the required licence (Class A) for operating a bus and a safe driving record. New drivers are required to undergo a one week training period and pass a specified probationary period before being hired. In-service training includes safety standards, lifting and transferring handicapped persons, tire changes and equipment use.
Employees are made responsible for their vehicles in terms of reporting mileage and upkeep. The drivers must be 19 years of age and may drive after 65 years of age but must report for regular medical check-ups. Jericho Hill School bus drivers must also meet similar standards to qualify. Teachers and child-care counsellors at Jericho Hill School will act as attendants on the buses while on field trips. The school behaviour rules under the Public Schools Act pertain to the children while travelling on the bus.

**Transportation Policy.** The Department of Education transportation policy is predicated upon the assumption that two categories of students are involved in pupil transportation:

1. Those who are not physically handicapped; and
2. Kindergarten pupils and physically handicapped pupils who for other reasons require special transportation.

School boards transporting children residing in areas beyond a departmental walk limit are eligible to receive grants to assist in the provision of such transportation. Those children who are kindergarten or physically handicapped pupils are eligible to receive either shareable bus transportation or Transportation Assistance Allowances, regardless of any walk limits. These Transportation Assistance Allowances, in the form of grants, may be available to parents and are paid through the local Board of School Trustees: costs are shared with the Department of Education.
Effective January 1, 1975, the Department of Education has shared the costs of Transportation Assistance Allowance with the local school boards according to the following formula:

1. 25¢ per pupil per day, plus 15¢ per vehicle mile (or part) travelled per day, to a maximum of $3.75 per pupil per day;

2. Transportation costs for physically handicapped pupils who travel 13 miles per day or less are shared at a flat rate of $2.25 per pupil per day, transportation for such pupils who travel more than 13 miles per day are shared according to item (1); and

3. In special cases where physically handicapped pupils must be transported in vehicles designed to accommodate wheelchairs, etc., the Department shares in 75% of the costs. Districts submit details of such cases separately.

Bus routes may be extended to any point even if only one pupil is involved. Shareability for grant purposes is based, in respect to the additional mileage involved, upon the lesser of:

1. the mileage rate applicable to the School District concerned or

2. the Transportation Assistance Allowance amount.
All cases involving Transportation Assistance are dealt with by the local Board of School Trustees concerned and the Parents involved.

Extra-curricular activities involving the transportation of pupils are the financial responsibility of the individual School Board concerned.

Legislation. The legislation dealing with the conveyance of pupils to and from any school in a particular school district is set down in the Public Schools Act Regulations. Specific clauses in Regulation 160 pertaining to the transportation of pupils are as follows:

160 (1) The Board of a School District may:
(a) provide for and defray the cost of the conveyance to and from any school in the school district that is a considerable distance from the school;
(b) provide for and defray the cost of conveyance of pupils for the purposes related to the instructional or other activities of the schools;
(c) subject to the regulations, enter into an agreement with a recreation commission, or a parks and recreation commission, or a civic properties and recreation commission, or any other similar body, to permit the use by such commission or other body of buses owned by the Board, for the purposes of a recreation programme; and
(d) provide for and defray the cost of the conveyance of pupils resident in the school district to a school in another school district if the pupils attend such school under an agreement entered into under this Act between the Boards of the respective school districts.

Although the Department of Education has set down written policies regarding the transportation of pupils and has passed legislation dealing with the conveyance of pupils to and from any school in a particu-
lar school district, there is still no regulation compelling schools to provide transportation to pupils. There is also no regulation preventing the operation of a bus route considered by the Department of Education to be wholly or partly 'non-shareable.'

The lack of mandatory regulations (compared with enabling legislation) regarding the provision of pupil transportation by the school districts has certain implications. If a local school board decides not to provide transportation for their pupils, many parents of handicapped children whose special school programme is not in the local school district where they reside, would be confronted with a choice of either caring for them at home, or handing them over to a publicly funded institution. If special transportation is not available, regular treatment may be hard to get to and may even be impossible. Gallagher (1972) pointed out that without special transportation, the children may never have full employment opportunities or reach their full independence. Due to this, parents may decide on institutionalization even if their child is not severely handicapped. No evidence was gathered to this effect in the present study.

In March 1975, the Fifth Report of the Royal Commission On Family and Children's Law was published. In Part IV dealing with the special needs of special children, the commission recognized that children with handicaps have special needs over and above those of most other children. The Commission's goal was to bring the best possible exposure to the problems of children with a variety of handicaps.
The Commission's basic position was that a child as a human being, is entitled to human rights. Also, where a child is handicapped, his handicap should not diminish his rights as a child.

The Commission recommended that the following rights should be incorporated into legislation:

1. All children must have access to an education appropriate to their individual needs; for children with special needs such access includes adequate transportation services, architectural accessibility, special aids and programmes. It is of paramount importance to maintain the integrity of the child's family, if at all possible. Thus his special educational requirements are best served by delivering the services to him rather than forcing him to travel beyond his immediate community.

2. In order to promote physical and mental health and to remedy illness, children must have access to all aspects of health care. This right suggests reasonable access to and availability of health care and includes the right at public expense to transportation to a health facility in cases of emergency or in cases of handicapped children whose access to this is restricted by their handicap.

3. Children must be provided with the right to play and recreation. Play and recreational facilities should be architecturally accessible to handicapped children and where required, special transportation to these facilities should be provided.

4. The Department of Education must ensure that legislation provides for all handicapped children who require it, and further, the department should specify in its regulations that there be a maximum daily length of time children should be in transit.

The Commission stressed that unless satisfactory transportation is provided, a handicapped child may be unable to make use of the special educational facilities created for him. Transportation planning for the use of educational facilities should be the fundamental part of the
overall process of planning. Although public transit may be appropriate for some handicapped children there are others whose handicap(s) prevent its use.

Given that government policy is to integrate, wherever possible, handicapped children and adults into society, then it must be reasonable to propose a statutory strengthening of provincial laws relating to the handicapped. Lowry (1972) suggests that while waiting for the provincial courts to become attuned to changes in social policy, the legislatures should seriously consider enacting new laws. For instance, the American Model White Cane Law proposes a statutory recognition of the shift in public policy together with the statutory strengthening of basic protection of the blind (see Appendix C).

Lowry feels that if such legislation is passed provincially, then modern school policy will be made more workable.

SPECIAL TRANSPORTATION SERVICES IN VANCOUVER

From the review of available resources, it is apparent that existing transportation services for the handicapped are becoming more and more fragmented in both the private and public sectors (see page 52).

Both groups have their rationale for the way they operate their vehicles. Each has its own clientele and often its own physical centre of activity. While there seems to be sufficient vehicles in Vancouver, the service is not properly coordinated.
If fragmentation continues the following problems may exist in the future:

1. duplication of routes;
2. insufficient scale of demand of individual operations;
3. lack of efficient communication between clients, drivers and centres;
4. lack of specialized features on vehicles for handling severely handicapped clients;
5. under-utilization of transportation facilities (vehicles and drivers); and
6. inadequate training of drivers to handle clients.

Fragmentation of services in Vancouver has affected the travel of handicapped children in the city. Nineteen parents reported that the lack of transportation somewhat restricts the places their child can go, particularly for social and recreational activities. The transportation used by those children who did participate in these types of activities was provided for the most part by the parents. Transportation to medical facilities was not seen as great a problem for the parents. The reason for this, in part, may be the provision of medical services and the existence of a school infirmary at Jericho Hill School.
The Advisory Committee on the Needs of the Physically Handicapped was set up in 1973 to focus on British Columbia's involvement in the provision of transportation services and facilities for the handicapped. The Committee recognized both the serious shortage of transportation for the handicapped in the Greater Vancouver area and the lack of defined responsibility by the provincial government. In 1974, the Committee made these recommendations to the Provincial Government.

TRANSPORTATION

Recommendation #6

The Committee Recommends that:

1. the Minister of Human Resources create a position of administrator of transportation for the handicapped to act as a central authority;

2. an advisory board to the central authority be appointed with representatives from groups involved with and of handicapped people; and

3. the central authority and advisory board consider the immediate need for short term goals and long term planning.

Immediate Need -- Evaluation and funding for existing services to prevent collapsing and to ensure continuing transportation services for the handicapped.

Short Term Goal -- To coordinate, integrate, and expand existing transportation services to be used as a model for a provincial transportation system for the handicapped.

Long Term Planning -- To investigate existing resources, public, private, volunteer, commercial and fill in gaps in service.

To ensure that the design and planning of existing and future transportation services and facilities whether municipal, regional, provincial, or federal are usable by handicapped people (subway, etc.) throughout the province.
TRANSPORTATION

Recommendation #12

The Committee Recommends that:

1. such legislation be drafted and passed into law by the provincial government;

2. the province specify a certain percentage of all grants allotted for urban transit be used to establish and/or improve transportation services for the handicapped.

Note: These two recommendations would ensure that the handicapped are considered in any present and future transportation planning of any transportation made in the province.

3. funds for specialized services of any mode should be obtained from the public treasury as is the case for present public transportation systems.

4. the civic-municipal and/or regional level of government should be a participant in the establishing and/or improving of any handicapped transportation services in their local area. This participation would include mainly planning and financing and operating of the service.

Note: Presumably the finances would be negotiated on a cost-shared basis between the civil-municipal and/or regional levels of local government, (whichever has the responsibility of the transportation function in a specific area) and the provincial government. The Bureau of Transit services would be financially involved, along with the Department of Education, Department of Health and the Department of Human Resources. This would make up the provincial government financial involvement.

As well, the federal government is now in the process of determining a policy of subsidization to handicapped transportation through the Federal Ministry of Transport. It is expected that they would also contribute financially.

5. the government create a position of a handicapped transportation coordinator to evaluate, coordinate and integrate handicapped transportation; and then authorize the appropriate financing to bring about a cohesive system of handicapped transportation modes for the province. The handicapped transportation coordinator should have the authority to work with any government department and private agency concerned with handicapped transportation.
6. Liaison between the Department of Human Resources and the Bureau of Transit Services be started as soon as implementation of recommendation "#1" is made, until such time as the Bureau is able to take on this additional specific responsibility.

7. All existing legislation in the statutes, particularly the new British Columbia Transit Act, be made use of to properly integrate and coordinate all forms and all modes of handicapped transportation in the province.

Jones (1975) of the Department of Human Resources, commenting upon the implementation of recommendations made by the Advisory Committee on the Needs of the Handicapped, states that work is now going on to determine how some existing facilities in the Lower Mainland can achieve better integration so that maximum services are made available from the funds which are presently being allocated. Specifically, he is referring to some non-profit community based groups in Delta, Surrey and White Rock area who are already funded through the Department of Human Resources Community Grants Program. The main objective of these groups is to ensure that duplication does not occur and whether by coordinating such tasks as screening, dispatching, and the purchasing of equipment. Jones suggests that this plan may be perceived as an initial start on Recommendation #6.

Jones stated that as Director of the Division of Community Programmes he did not have information on the implementation of the other items in Recommendations #6 and #12. But, he noted, the Department of Human Resources does realize that probably the greatest majority of those physically handicapped are unable to use the standard transportation equipment. Thus, it is apparent the government is aware of the
problems and needs of the handicapped but is not willing, at this time, to implement all of the Advisory Committee's Recommendations: this is most likely because of the additional costs involved. This conclusion is reasonable in light of the present resource scarcity, fiscal problems and the fact that these recommendations represented work completed by an advisory committee for a previous government.

From the discussion of the extent to which public and special transportation services are accessible to children with visual and hearing impairments, a presentation in the following chapter will consider ways in which transportation services for these children might be improved.
REFERENCES

CHAPTER V


CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

This investigation has shown that there is little evidence to support development of special transportation services of blind and deaf children in order that they may use regular recreational facilities or attend medical services. However, problems are evident in the area of transportation to school.

It is not clear at the present time whether Jericho Hill School will remain as a central facility or if decentralization will occur. In the former situation basic improvements to the school transportation service must be made. The following list of suggestions have been taken from parent's responses and comments.

1. The Easter Seal should have attendants on all of its buses.
2. The Easter Seal should provide mini-buses in the form of a shuttle service.
3. Bus routes should be direct to the schools and transfer points discarded.
4. Parents should be immediately notified of any accident or breakdown.
5. Separate transportation vehicles should be arranged for the deaf and blind children.
6. Parents should get together and arrange to provide music or another activity for the children while in transit.

7. Drivers should insure the children are properly seated and secure in their seats.

8. Drivers should be more considerate of their passengers.

9. The lunch hour might be shortened to allow the children to arrive home at an earlier hour.

In the latter situation (decentralization) it is necessary to seek out which transportation alternative(s) are available and decide which would be most suitable as an initial step in the design of a transportation system accessible to the blind and deaf children.

Alternative Systems of Transportation With Decentralization

There are two possible methods by which equal access to public transportation by the children can be achieved. The first is to provide a system of integrated services through the adaptation of present facilities. There are, however, problems with such a system due to the potential existence of travel barriers. Abt (1969: 48) states the "challenge of eliminating travel barriers is compounded by the fact that both physical difficulties and travel barriers occur in combination, rather than individually, with any person or transportation mode."

Therefore, the elimination of one barrier, regardless of its importance, will not make the integrated system accessible to a large portion of the population.
Specific to the sample population in this study are sensory requirements. To use public transit systems the passenger is required to receive and process information about schedules and routes. Much of the information that guides him is transmitted by signs and loudspeakers. If hearing or seeing is impaired, travel information is no longer communicated. Improvements in information and transmission need to be undertaken as well as the removal of certain physical barriers such as long staircases, narrow doors, and high bus steps. Lengthy design and construction time periods and high cost would make capital improvements to the present transit difficult to recommend. Adaptations to it would only have a marginal impact on the accessibility of the handicapped to the service. It is likely improvements can only come about from a complete system redesign.

The second method is through the development of parallel services which would complement the present transit system. Possibly the most favourable pattern which transit operation can provide is one that is specially designed for the use of handicapped children. Generally, such services run on a demand-responsive basis, offering door-to-door mobility. The demand-responsive type of service offers important benefits in that it provides direct mobility on a one-to-one basis to those individuals who have greatest need. The principle underlying this concept is the supply of a special service when and where it is required, particularly where no public transit is available. The system is best in situations where no long-range demand pattern can be forecast.
Problems under central or decentralized educational services will be solved through proposals put forward under the Greater Vancouver Regional District proposals. The services proposed are designed to accommodate a broad range of handicaps. The Greater Vancouver Regional District prepared the following diagram illustrating the principle participants in a developing system and identifying interlocking relationships.

At the micro-level the following list of suggestions came from parent's responses and comments.

1. Bus drivers should be trained in the handling of handicapped people.

2. Place destination should be placed on both the front and back of the bus.

3. Information booths should be located at every major bus loop.

4. A British Columbia Hydro Bus pass could simplify bus travel for the children.

5. Children should be given special Identification Cards which would make bus drivers aware of the handicap and whether it is physical or communicative.

Finally, moving to the macro level some general recommendations can be put forward that may resolve the transportation problems facing the various service centres and private contractors:
Figure 8 Organization of the Regional Transit Organization

Source: Transportation for a Livable Region by Greater Vancouver Regional District, p. 90.
1. That legislation securing handicapped persons equal right of access to public transportation be drafted and passed into law by the provincial government. This would guarantee that all handicapped children and adults are taken into account in present and future transportation planning.

2. That responsibility for funding and coordination required for the parallel service be secured from the public treasury as it is for the present public transportation system. Presumably the finances would be negotiated on a cost-shared basis between the civil-municipal and/or regional levels of local government. In order that this new service be considered an alternative mode of public transportation, it should have similar funding provisions.

3. That Vancouver should be a participant in the establishment of any new special service, because community transportation is basically a responsibility of the municipal government.

4. That control of any parallel service be discharged at the community level, as particular needs of each community differ considerably.

5. That the Department of Municipal Affairs be made responsible for looking into requests for help in setting-up transit services for handicapped children and adults. In order that the new special service be considered a public utility rather
than a social service it should be designated to the same category as the public transit.

SUMMARY

The provision of a parallel system run on a demand-responsive basis offers important benefits in that it provides direct access and therefore mobility. The establishment of this service would enable the public transit system to claim that it renders equality of access to all citizens: entitlement would be of essence, a right which can be thought of as fundamental because it provides freedom. However, if Jericho Hill School remains as a central facility for the education of deaf and blind children a more localized well organized shuttle service would be the maximum requirement.

A pertinent comment from one parent describes the extent of the current problem: "It seems grossly unfair that handicapped children who are often ill should have to travel such long hours every day of the week to try to obtain an education. We feel efficient transportation should be given each one."

The chief conclusion of this thesis is that resources are limited and British Columbia Society has yet to be definitive in setting out its standards, policies, and laws which might provide for adequate transportation of deaf and blind children to school.
REFERENCES

CHAPTER VI

This study has concentrated upon a little investigated area and inevitably further research is warranted. Replication of the present study employing better research instruments might determine whether the present findings could be generalized to other handicapped populations.

The findings of the present study and the resulting recommendations are directly related to Jericho Hill School and thus may not be applicable to the transportation programs in any other institutions.

In addition, the sample size was small and in terms of functioning could be described as only borderline. To illustrate the transportation needs of handicapped persons better, a group dependent on the wheelchair would have ideally been chosen. Lack of cooperation on the part of several organizations was the reason why a severely handicapped group was not studied.

Implications

Although there remains much ground to cover, it is apparent that the reorganization of present services and the establishment of special parallel services holds much promise for the development of a fair and adequate transportation system. Unless there is satisfactory transportation provided, handicapped children may be unable to make use of the special educational programmes created for them. Transpor-
tation must be considered both by school administrators and public
transport planners in their initial program planning: it is an aspect
which is essential to the educational and social development of the
child.

To guarantee that the handicapped blind and deaf children are taken
account of in present and future transportation planning, implementation
of legislation securing the handicapped persons equal right of access to
public transit must be made. If government policy is to integrate
blind and deaf children wherever possible into society, then it is
reasonable to propose a statutory strengthening of provincial laws
relating to handicapped people.

Proposals for Further Research

This project represented a beginning point in the study of
transportation requirements of blind and deaf school children in
Vancouver. It is suggested that other areas of transportation services
be examined on a wider scale and in a way similar to that of this study.
With the resulting data, it is suggested that one handicapped group
be selected and a pilot service set-up for them which could be
rigorously evaluated.

While the lack of published literature and data relative to
this topic may have imposed a limitation to the project, it does re-
fect the need for such an undertaking. Because of the numerous
variables that must be taken into account, considerably more research
must be carried out in this area before any overall plans can be
designed and implemented. A further limitation to this study was the disadvantage of using a mailed questionnaire. Future studies should concentrate upon in depth personal interviews.

One other aspect which must be considered is that of client involvement. Although the frame of reference directly considered the client, it is suggested that he may be more directly involved. The only way one can be assured that the transportation operators are fulfilling their function is through communication with those in receipt of its services. Such feedback would be invaluable in assessing and formulating transportation policies and practices.
SELECTED BIBLIOGRAPHY
SELECTED BIBLIOGRAPHY

Books


Articles

Buehring, L. "Key Words are Still Safety and Economy," *The Nation's Schools.* Vol. 65, May 1960, pp. 72-74.


Reports


APPENDICES
APPENDIX A

QUESTIONNAIRE AND COVER LETTERS
The purpose of this study is to look into the difficulties your child experiences in using transportation and how you normally handle these difficulties.

We are interviewing parents of children with visual and hearing handicaps. Your answers will help us identify and analyze features of the present transportation system which present difficulties to handicapped people. This information will form part of our recommendations for changes in existing facilities and may help to shape plans for future systems.

The following questionnaire is divided into a number of sections dealing with different areas relating to the handicapped. These include the school, medical treatment, recreation and the level of functioning of your child in view of existing transportation facilities. We apologize for the monotony of some of the questions in each area; however, we feel this is the only way to get an overall view of the topic. We guarantee that the information we will receive will be treated with the utmost confidentiality.

In regard to the questionnaire itself, if you have more than one child at Jericho please answer all questions in terms of your oldest child.

Please do not write in the squares in the right-handed column on each page and indicate your answer by circling the correct number where there is a choice. Where there are dotted lines, you may answer the questions in sentence form on the lines provided.
1. Sex of child?
   1. female  
   2. male

2. Year of birth of child?

The next series of questions involves family resources which are available as we feel these have some bearing on the transportation your child receives. You are not obligated to answer any of these questions if you feel at all uncomfortable.

3. What is the size of the family?
   1. two  
   2. three  
   3. four  
   4. five  
   5. six  
   6. seven  
   7. eight  
   8. nine  
   9. other - please specify

4. Do you have any other handicapped children?
   1. yes  
   2. no

If yes, what is the nature of the handicap?  

5. What type of private means of transportation does the family have?
   1. car  
   2. two cars  
   3. truck  
   4. van  
   5. bus  
   6. motorcycle  
   7. bicycle  
   8. boat  
   9. other - please specify

6. Under which of the following categories does your income fall?
   1. up to $4,999  
   2. $5,000 - $9,999  
   3. $10,000 - $14,999  
   4. $15,000 - $24,999  
   5. $25,000 - $39,999  
   6. $40,000 and up

The next series of questions involves your child's level of functioning in relation to transportation and other facilities.
7. Is your child able to:

<table>
<thead>
<tr>
<th>Yes, with difficulty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) walk without the help of another person</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(b) use stairs</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(c) move in crowds</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(d) identify audio cues</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(e) identify visual cues</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(f) other - please specify</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

8. Does your child need any of the following special aids to get around?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Occasionally</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) wheel chair</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(b) crutches</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(c) walker</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(d) braces</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(e) cane</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(f) seeing-eye dog</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(g) hearing aid</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(h) van</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(i) elevator or ramp in home</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(j) aid of another person:</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Who? .................................................................
How Often? .........................................................

(k) other - please specify ....................................

9. Discuss the limitations involved in the use of the following methods of transportation:

- 1. unassisted, easily
- 2. unassisted, some difficulty
- 3. easily, with assistance
- 4. some difficulty, with assistance
- 5. not applicable

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) walking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) public bus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) Easter Seal bus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) taxi</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) parent driver</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) volunteer driver</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(g) other - please specify</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
10. Referring specifically to the use of the bus, comment on the level of functioning of your child in terms of each of the following:

<table>
<thead>
<tr>
<th></th>
<th>1. unassisted, easily</th>
<th>2. unassisted, some difficulty</th>
<th>3. easily, with assistance</th>
<th>4. some difficulty, with assistance</th>
<th>5. not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>detect approach of bus</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>stand waiting for bus</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c)</td>
<td>locate entrance of bus</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d)</td>
<td>go up/down stairs</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e)</td>
<td>locate vacant seat</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f)</td>
<td>stand holding grip</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g)</td>
<td>detect destination</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h)</td>
<td>pull cord</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td>obtain assistance</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j)</td>
<td>ask directions from driver</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(k)</td>
<td>other - please specify</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Does your child experience any other difficulties using a bus?

12. Does your child ever travel alone in a taxi?

   1. Yes
   2. No

   If yes, comment on his/her level of functioning in terms of each of the following areas:

<table>
<thead>
<tr>
<th></th>
<th>1. unassisted, easily</th>
<th>2. unassisted, some difficulty</th>
<th>3. easily, with assistance</th>
<th>4. some difficulty, with assistance</th>
<th>5. not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>getting taxi</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>getting to proper destination</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c)</td>
<td>leaving taxi</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d)</td>
<td>other - please specify</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Does your child experience any other difficulties travelling in a motor vehicle?

   .................................................................................................
14. If you were able to make any changes in the present public transportation system, which specific changes would you make?

The next series of questions relates to the school and your child.

15. What is the distance from your home to the school?

1. 0 - 4 blocks 6. 11 miles or over
2. 5 - 8 blocks 7. don't know
3. 9 blocks to 1 mile 9. other - please specify
4. 2 - 5 miles
5. 6 - 10 miles

16. What factors were involved in your decision to send your child to Jericho?

17. What is the mode of transportation to school?

1. walk 6. taxi
2. public bus 7. parent/relative
3. Easter Seal bus 8. friend
4. Easter Seal van 9. other - please specify
5. volunteer

18. What is the mode of transportation from school?

1. walk 6. taxi
2. public bus 7. parent/relative
3. Easter Seal bus 8. friend
4. Easter Seal van 9. other - please specify
5. volunteer

Which is most often used?
19. If 17 and 18 differ, state reason: ...........................................
...........................................................................................................
...........................................................................................................
...........................................................................................................

20. What is the time of departure from home?

1. before 7:00 a.m. 5. 8:31 - 9:00 a.m.
2. 7:01 - 7:30 a.m. 6. don't know
3. 7:31 - 8:00 a.m. 9. other - please specify
4. 8:01 - 8:30 a.m. ...........................................

21. What is the time of departure from school?

1. 2:00 - 2:30 p.m. 5. don't know
2. 2:31 - 3:00 p.m. 9. other - please specify
3. 3:01 - 3:30 p.m. ...........................................
4. 3:31 - 4:00 p.m. .................................

22. What is the time of arrival at home?

1. 2:30 - 3:00 p.m. 5. 4:31 - 5:00 p.m.
2. 3:01 - 3:30 p.m. 6. after 5:00 p.m.
3. 3:31 - 4:00 p.m. 7. don't know
4. 4:01 - 4:30 p.m. 9. other - please specify
   ...........................................

23. What is the cost of one return trip per day?

1. nothing 7. $3.01 - $5.00
2. $ .10 - $ .25 8. over $5.00
3. .26 - .50 9. don't know
4. .51 - 1.00 10. other - please specify
5. 1.01 - 1.50 ...........................................
6. 1.51 - 3.00 ...........................................

24. Who pays for the transportation?

1. parents 6. Provincial Government
2. foster parent/guardian 7. treatment centre
3. relative 8. charitable organization
4. organization 9. don't know
5. Vancouver School Board/ 10. other - please specify
   Municipal Government .................................
25. Who do you feel should pay for transportation to and from school?

1. parent/guardian
2. school
3. Vancouver School Board/
   Municipal Government
4. Provincial Government
5. organization
6. charitable organization
7. don't know
8. organization
9. other - please specify

26. Whose responsibility do you feel it is to make the arrangements for transportation to and from school?

1. parent/guardian
2. school
3. Vancouver School Board/
   Municipal Government
4. Provincial Government
5. organization
6. charitable organization
7. don't know
8. other - please specify

27. Is there anything else you would like to add about the transportation to and from school which we have not discussed?

The next series of questions concerns any treatment your child may be receiving.

28. Has your child received any special therapy or counselling?

1. Yes
2. No

If no, proceed to Question 33.

If yes, over how long a period of time?

1. 0 - 6 months
2. 6 months
3. 1 - 2 years
4. over 2 years
5. don't know
29. Please specify which of the following treatments your child receives:

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes</th>
<th>No</th>
<th>Jericho's, where?</th>
<th>How Often?</th>
<th>What is the Transportation Used</th>
<th>Cost</th>
<th>Who Pays?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapy or Occupational Therapy</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio/Speech Therapy</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatric Counselling</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Counselling</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Work Counselling</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other - please specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are there any specific transportation problems associated with any of the above?
30. Does your child receive any kind of mobility training?
   1. Yes          2. No
   If no, do you feel there is a need for it and who do you feel should provide it?
   .................................................................................................................................
   .................................................................................................................................
   .................................................................................................................................

31. Where would you prefer treatment to be given?
   1. home   4. don't know
   2. school  9. other - please specify
   3. treatment centre

32. Are you pleased with the type of treatment your child is receiving?
   1. Yes          2. No
   If no, can you make any recommendations?
   .................................................................................................................................
   .................................................................................................................................
   .................................................................................................................................

33. Does your child go to regular medical appointments?
   1. Yes          2. No
   If yes, how often? Where? What is the mode of transportation?
   .................................................................................................................................
   .................................................................................................................................
   .................................................................................................................................

The next series of questions concerns recreation.

34. Does your child take part in any recreational facilities or programs?
   1. Yes          3. Don't know
   2. No
   If no, go to question 41.
35. Who sponsors the recreation program?

1. community
2. school
3. organization/charitable organization
4. treatment centre
5. don't know
6. other - please specify

36. What type of activities does this include and how often?

37. Is transportation arranged?

1. Yes
2. No
3. don't know

38. What is the mode of transportation most often used?

1. walk
2. public bus
3. Easter Seal bus
4. Easter Seal van
5. organization car
6. volunteer
7. taxi
8. parent
9. other - please specify
10. other private car
11. don't know

39. What is the average cost of the return trip?

1. nothing
2. $.10 - $.25
3. $.26 - $.50
4. $.51 - 1.00
5. 1.01 - 1.50
6. 1.51 - 3.00
7. $3.01 - $5.00
8. over $5.00
9. other - please specify
10. don't know

40. Who pays for transportation?

1. parents
2. foster parent/guardian
3. agency/charitable organization
4. Easter Seal
5. Vancouver School Board
6. Provincial Government
7. don't know
8. other - please specify
9. other - please specify
41. If child does not take part in any recreational programs, why?

1. no transportation
2. cost
3. don't know of any available
4. child not capable
5. don't know
6. other - please specify

42. Does lack of transportation ever restrict the places your child can go to?

1. Yes
2. No
3. Don't know

43. If yes, what trips is he/she prevented from making?

1. shopping
2. medical
3. school
4. entertainment - park, movies
5. social visit
6. recreation - daytrips, swimming
7. don't know
8. other - please specify

44. Are you receiving any financial assistance for any of the following?

<table>
<thead>
<tr>
<th>Type</th>
<th>Yes</th>
<th>No</th>
<th>From Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) child's equipment/aids</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(b) transportation</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(c) medical</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(d) special school</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(e) housing</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(f) other - please specify</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

45. Have you ever had to change your place of residence because of your child's disability?

1. Yes
2. No

If yes, elaborate

.................................................................
.................................................................
.................................................................
.................................................................
.................................................................
.................................................................
.................................................................
46. Does your child have any special insurance coverage?
   1. Yes  2. No
   If yes, what is the cost and to whom? ...........................................
   ..........................................................................................

47. What, if any, risk factors do you feel are involved with reference to public transportation?
   ..........................................................................................
   ..........................................................................................
   ..........................................................................................

FOR DEAF CHILDREN 16 - 19 YEARS OLD

48. Do you drive?
   1. Yes  2. No
   If yes, go to question 50.

49. If no, does your handicap prevent you?
   1. Yes  2. No

50. Have you had any problems obtaining a driving license?
   1. Yes  2. No
   If yes, elaborate: .................................................................
   ..........................................................................................
   ..........................................................................................

51. Have you had any problems obtaining insurance?
   1. Yes  2. No
52. What is the cost and coverage of insurance?  

53. Are you receiving any financial assistance?  

1. Yes  
2. No  

If yes, please state from where and how much.
August 8, 1975

Dear Parent:

We are completing a study on the transportation costs and problems that you and your child may be experiencing in travelling to and from school. This work is being sponsored by the University of British Columbia with the co-operation of Jericho Hill School. Mr. Thorsell has read and approved the questionnaire we have prepared.

With your help it is hoped to identify some of the barriers that transportation imposes in your child's travel to school and recreation facilities.

It would be greatly appreciated if you would fill out the enclosed questionnaire and return it in the stamped addressed envelope provided. You are, of course, under no obligation to complete the questionnaire; however, it is hoped you will realize the importance of the work that is being done.

All information will be kept in strictest confidence and it is hoped that the information gained will help to shape a more convenient transportation system for your child.

Yours sincerely,

Morton M. Warner,
(Assistant Professor, Health Services Planning)

Colleen Stuart,
(Student, Health Services Planning)
September 8, 1975

Dear Parent,

We are presently compiling the information we have gathered about the transportation costs and problems faced by parents of children attending Jericho Hill School.

Since we hope to include a large sample of children who are at Jericho or the off-campus classes, we would like the co-operation of as many families as possible. We hope that you have received the questionnaire that was sent to you along with an outline of our study and that you have given some consideration to the area of transportation in reference to your child.

It would be greatly appreciated if you would complete the questionnaire and send it in to us. Our survey has given us a lot of insight into the particular problems which transportation involves and we sincerely hope our recommendations can lead to a more practical arrangement.

We hope you will realize the significance of the information you can give us and that you will co-operate as soon as possible.

Thanking you,

I remain,

Yours sincerely,

Colleen Stuart
Student,
Health Services Planning
APPENDIX B

VANCOUVER SCHOOL BOARD PROPOSAL
### Vancouver School Board - Special Schools

<table>
<thead>
<tr>
<th>Location</th>
<th>Wheelchair</th>
<th>Regular Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oakridge</td>
<td>4</td>
<td>141</td>
</tr>
<tr>
<td>Renfrew Annex</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Douglas Annex</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Trafalgar</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Children's Hospital</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Sunny Hill Hospital</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>G.F. Strong Rehab. Centre</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>John Oliver</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Windermere</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Vancouver Tech</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Prince of Wales</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Eric Hamber</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Maples</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Kingsford Smith</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Carlton</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>David Lloyd George</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>South Hill</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Emily Carr</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Queen Alexander</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Edith Cavell</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Cecil Rhodes</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Charles Dickens</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Dickens Annex</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Florence Nightingale</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Lord Tennyson</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Mount Pleasant</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Douglas Annex</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Annie B. Jamieson</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Richard McBride</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Brock Annex</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Emily Carr Reading</td>
<td>-</td>
<td>9</td>
</tr>
</tbody>
</table>

27 Passengers Special W/C Transportation  
274 Passengers Ambulatory

31 Schools  
301 Passengers  
20 Vehicles  
1000 Miles Daily Average  
200 Gallons of Gas Daily Average @ 75¢ per gallon

Bus Average 15 miles per hour  
Bus Average 8 1/2 children per hour  
Bus Average @ 7 minutes per child
### VANCOUVER SCHOOL BOARD PROPOSAL

(100% VSB use - maximum riding time 3/4 hour daily)

<table>
<thead>
<tr>
<th>Cost Per School Term</th>
<th>(4) W / C 7 passenger Van Duras</th>
<th>(15) 15 passenger Van Duras</th>
<th>(1) 42 passenger G M C</th>
<th>(20) Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Regular Hours:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) 6-hour drivers @ $5.75</td>
<td>0</td>
<td>$14,490</td>
<td>$7,245</td>
<td>$21,735</td>
</tr>
<tr>
<td>(3) 6-hour attendants @ $3.25</td>
<td>0</td>
<td>8,190</td>
<td>4,095</td>
<td>12,285</td>
</tr>
<tr>
<td>(17) 4-hour drivers @ $5.75</td>
<td>$19,320</td>
<td>62,790</td>
<td>0</td>
<td>82,110</td>
</tr>
<tr>
<td>(17) 4-hour attendants @ $3.25</td>
<td>10,920</td>
<td>25,490</td>
<td>0</td>
<td>46,410</td>
</tr>
<tr>
<td>Sick and Statutory Leave</td>
<td>1,000</td>
<td>3,750</td>
<td>250</td>
<td>5,000</td>
</tr>
<tr>
<td>General Expenses</td>
<td>400</td>
<td>1,500</td>
<td>100</td>
<td>2,000</td>
</tr>
<tr>
<td>Bus Maintenance - Direct</td>
<td>3,000</td>
<td>11,250</td>
<td>750</td>
<td>15,000</td>
</tr>
<tr>
<td>Lease and Capital Costs</td>
<td>9,600</td>
<td>28,500</td>
<td>4,000</td>
<td>42,100</td>
</tr>
<tr>
<td>Gas, lubrication and oil costs</td>
<td>6,300</td>
<td>23,625</td>
<td>1,575</td>
<td>31,500</td>
</tr>
<tr>
<td>200 gallons daily @ 75¢ per gallon</td>
<td>500</td>
<td>1,875</td>
<td>125</td>
<td>2,500</td>
</tr>
<tr>
<td>I.C.B.C. and licenses</td>
<td>2,896</td>
<td>10,861</td>
<td>725</td>
<td>14,482</td>
</tr>
<tr>
<td>Share of Direct Supervision in Transportation Administration</td>
<td>$ 53,936</td>
<td>$202,321</td>
<td>$18,865</td>
<td>$275,122</td>
</tr>
</tbody>
</table>

**Reduced loads to other agencies resulting in lower efficiencies will require subsidy**

| Reduced loads to other agencies | 7,000 | 26,250 | 1,750 | 35,000 |
| Share of General Society Overhead | 4,550 | 17,070 | 959 | 22,579 |

**Proposed Cost New Service**

<table>
<thead>
<tr>
<th>(4) W / C 7 passenger Van Duras</th>
<th>(15) 15 passenger Van Duras</th>
<th>(1) 42 passenger G M C</th>
<th>(20) Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$65,486</td>
<td>$245,641</td>
<td>$21,574</td>
<td>$332,701</td>
</tr>
</tbody>
</table>

**Present System Cost 1975 - 76**

| Increased Cost for a full school term (Up 123.52%) | $183,860 |
| Projected Number of Return Trips | $63,840 |
| Cost per return/trip - New Proposal | $5.21 |
| - Present Proposal | $2.33 |

1 Union certification pending and provided for.
APPENDIX C

MODEL WHITE CANE LAW
§ 1 -- It is the policy of this State to encourage and enable the blind, the visually handicapped, and the otherwise physically disabled to participate fully in the social and economic life of the State and to engage in remunerative employment.

§ 2 -- (a) The blind, the visually handicapped, and the otherwise physically disabled have the same right as the able-bodied to the full and free use of the streets, highways, sidewalks, walkways, public buildings, public facilities, and other public places.

(b) The blind, the visually handicapped, and the otherwise physically disabled are entitled to full and equal accommodations, advantages, facilities, and privileges of all common carriers, airplanes, motor vehicles, railroad trains, motor buses, streetcars, boats or any other public conveyances or modes of transportation, hotels, lodging places, places of public accommodation, amusement or resort, and other places to which the general public is invited, subject only to the conditions and limitations established by law and applicable alike to all persons.

(c) Every totally or partially blind person shall have the right to be accompanied by a guide dog, especially trained for the purpose, in any of the places listed in section 2(b) without being required to pay an extra charge for the guide dog; provided that he shall be liable for any damage done to the premises or facilities by such dog.

§ 3 -- The driver of a vehicle approaching a totally or partially blind pedestrian who is carrying a cane predominately white or metallic in color (with or without a red tip) or using a guide dog shall take all necessary precautions to avoid injury to such blind pedestrian, and any driver who fails to take such precautions shall be liable in damages for any injury caused such pedestrian; provided that a totally or partially blind pedestrian not carrying such a cane or using a guide dog in any of the places, accommodations or conveyances listed in section 2, shall have all of the rights and privileges conferred by law upon other persons, and the failure of a totally or partially blind pedestrian to carry such a cane or to use a guide dog in any such places, accommodations or conveyances shall not be held to constitute nor be evidence of contributory negligence.

§ 4 -- Any person or persons, firm or corporation, or the agent of any person or persons, firm or corporation who denies or interferes with admittance to or enjoyment of the public facilities enumerated in section 2 or otherwise interferes with the rights of a totally or partially blind or otherwise disabled person under section 2 shall be guilty of a misdemeanor.
§ 5 — Each year, the Governor shall take suitable public notice of October 15 as White Cane Safety Day. He shall issue a proclamation in which:

(a) he comments upon the significance of the white cane;

(b) he calls upon the citizens of the State to observe the provisions of the White Cane Law and to take precautions necessary to the safety of the disabled;

(c) he reminds the citizens of the State of the policies with respect to the disabled herein declared and urges the citizens to cooperate in giving effect to them;

(d) he emphasizes the need of the citizens to be aware of the presence of disabled persons in the community and to keep safe and functional for the disabled the streets, highways, sidewalks, walkways, public buildings, public facilities, other public places, places of public accommodation, amusement and resort, and other places to which the public is invited, and to offer assistance to disabled persons upon appropriate occasions.

§ 6 — It is the policy of this State that the blind, the visually handicapped, and the otherwise physically disabled shall be employed in the State Service, the service of the political subdivisions of the State, in the public schools, and in all other employment supported in whole or in part by public funds on the same terms and conditions as the able-bodied, unless it is shown that the particular disability prevents the performance of the work involved.

Source: Blind Rights by David R. Lowry, p. 98.