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A NATIONAL SURVEY TO IDENTIFY CURRENT AND RECOMMENDED PRACTICES IN THE TRANSPORTATION OF HANDICAPPED STUDENTS

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ABSTRACT

A NATIONAL SURVEY TO IDENTIFY CURRENT AND RECOMMENDED PRACTICES IN THE TRANSPORTATION OF HANDICAPPED STUDENTS

By

Daniel Edward Della-Giustina

Statement of the Problem

The successful operation of transporting handicapped students to and from school depends upon a high quality of performance by all those who are associated with the program.

The inception of Standard Seventeen (June 5, 1972) as one of the most recent additions to the Federal Highway Safety Program was designed to improve state programs for transporting pupils safely in rural and urban areas. There seems to be a need for additional regulations within the framework of Standard Seventeen regarding drivers who transport handicapped students.

The purpose of this research was to identify current and recommended practices for transporting handicapped students by state departments of education and selected school systems throughout the nation. In addition, an advisory group was asked to make a critical

evaluation of the recommended practices. It was hoped that the identification of practices by school officials and the group of experts might encourage a more widespread adoption of the recommendations.

Description of the Method Used

It was determined that data would be sought from the 50 state departments of education, 2 school systems randomly selected from each state, and an advisory group of 6 pupil transportation experts. The large school system selected had a student enrollment of 14,000 or more students, while the small school system had an enrollment of 13,999 or less students.

Questionnaires were sent to each state department of education and 100 selected school systems. Data were grouped in the following manner: (1) administrative procedures, (2) selection of drivers, (3) instructional programs, and (4) vehicles and equipment used for the transportation of handicapped students.

The design of the study was reviewed by specialists in educational research at Michigan State University and the Supervisor of Pupil Transportation of the Michigan State Department of Education. A pilot study to pretest the instrument was conducted.

A 66.6 per cent response of the completed questionnaires was achieved.

A narrative description of the analyzed data with attendant tables presented the current and recommended practices of state departments of education and selected school systems.

The Major Findings

The major findings of this research are summarized as follows:

1. Thirty four per cent of the state departments of education, 21.9 per cent of the large school systems and 20.7 per cent of the small school systems currently have a printed policy covering any person involved in a program transporting handicapped students. Eighty-three per cent of the state departments, 69.6 per cent of the large systems, and 77.3 per cent of the small systems recommended the use of printed policies.

2. Approximately 85 per cent of the state departments, 90 per cent of the large school systems, and 75 per cent of the small school systems recommended the Red Cross Basic First Aid Course as a requirement for all drivers. The advisory group members unanimously sanctioned this as a requirement.

3. At the present time 5.4 per cent of the state departments, 21.9 per cent of the large systems,

28.6 per cent of the small systems indicated that their drivers are required to take the National Safety Council's Defensive Driving Course. Some 90 per cent of the state departments of education, 95.8 per cent of the large systems, and 58.8 per cent of the small systems recommended that all drivers be required to take this course. Again all members of the advisory group supported this course.

4. The majority of the respondents recommended that after the initial medical and visual examination, all drivers transporting handicapped students should report every year for re-examination.

5. The current practice of utilizing qualified instructors preparing drivers for the transportation of handicapped students was reported by 68.7 per cent of the state departments of education, 62.5 per cent of the large systems, and 62.9 per cent of the small school systems. The use of qualified instructors was recommended by all state departments of education and advisory group members, 84.2 per cent of the large school systems, and 69.2 per cent of the small school systems.

6. Special classroom and behind-the-wheel instruction for drivers whose duties will include transporting handicapped students was recommended by most respondents.

7. Sixty and six-tenths per cent of the state departments of education, 28.1 per cent of the large school systems, and 51.9 per cent of the small school systems required emergency evacuation drills on all vehicles transporting handicapped students. All advisory group members, 94.1 per cent of the state departments, 80.9 per cent of the large school systems, and 71.4 per cent of the small school systems recommended emergency evacuation drills.

8. Respondents, for the most part, indicated that there should be design and construction standards for all vehicles transporting handicapped youngsters.

9. Findings indicate that an overwhelming majority of the respondents recommended that all vehicles (with the exception of station wagons) transporting handicapped students should conform to the National School Bus Glossy-Chrome Yellow Standard.

10. Forty-seven per cent of the state departments of education, 46.9 per cent of the large school systems, and 32 per cent of the small school systems currently required handicapped students to use restraining devices whenever the vehicle was in motion. This requirement was recommended by 84.6 per cent of the state departments, 73.7 per cent of the large school systems, and 75 per cent of the small school systems.

11. Most respondents recommended that all vehicles carrying handicapped students should be equipped with two-way communication devices.

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By

Daniel Edward Della-Giustina

A THESIS

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In Memoriam

Augustus Della-Giustina

1887 - 1952

The love, encouragement, and support he gave,
and the faith he had in his son, are special
memories that will always be treasured.

ACKNOWLEDGMENTS

The author would like to recognize the assistance and encouragement he has received in this research endeavor. A research project such as this can only be achieved with the help of many people. Although it is impossible to directly recognize all who have been of assistance, the author wishes to acknowledge his indebtedness and express his appreciation to the following:

To Dr. Robert O. Nolan, Professor at Michigan State University, College of Education and the Highway Traffic Safety Center, who always seemed to be there in time of need. His guidance as Academic Advisor gave me the support and encouragement needed through the completion of my doctoral program.

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Many thanks to Dr. Robert E. Gustafson of the College of Education and Highway Traffic Safety Center who gave of himself freely and unselfishly during the early planning stages of this program.

The author is particularly grateful to the state directors of pupil transportation and members of the advisory group, for without their help and cooperation this study would not have been possible.

Appreciation is expressed to my mother for her guidance and encouragement to pursue a higher education.

Most importantly, the author wishes to give special thanks to his wife, Sharon, for her enduring patience, confidence, and encouragement throughout his graduate study. To his sons, Danny, John, and David, who missed the companionship of their dad during the time spent away from home completing the doctoral program.

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CHAPTER I

NATURE OF THE PROBLEM

Introduction

In 1971, twenty million elementary and secondary school children in the United States were bused to school daily. These children rode 290,000 buses 2.3 billion miles in 1972 at a cost of $1.5 billion.[1] National figures show that 65 per cent of the school children ride to school each day. While the fatality-injury record and accident experiences for school vehicles are the lowest in the mass transportation category, the need still exists for further accident reduction.

School bus transportation accidents killed 150 persons in 1971, including 85 pupils, 5 bus drivers, and 60 other persons.[2] Of the pupils killed, 35 were passengers on school vehicles and 50 were pedestrians either approaching or leaving a loading zone. More than half of

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[1] National Safety Council, Accident Facts (Chicago: Safety Council, 1972), pp. 92-93.

[2] Ibid.

the pupil pedestrian victims were struck by a vehicle other than the school bus which they were entering or leaving.[3]

Pupil transportation has become an integral part of our transportation system. The inception of Standard Seventeen (June 5, 1972) as one of the most recent additions to the Highway Safety Program as set forth by the National Highway Traffic Safety Administration was designed to improve State programs for transporting pupils safely in rural and urban areas. The purpose of this standard is to reduce to the greatest extent possible, the danger of death or injury to school children while they are being transported to and from school. The Administration recommended that the standard be issued initially to cover "pupil transportation safety" but that the standard should be expanded in the future to cover all youth transportation not under the jurisdiction of the Department of Transportation's Bureau of Motor Carrier Safety.[4]

During the last twenty-five years, increasing student enrollments precipitated additional or ever-increasing numbers of handicapped students, who also

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[3] Ibid.

[4] U.S. Department of Transportation, Pupil Transportation Safety (Washington, D.C.: National Highway Traffic Safety Administration, May, 1972), pp. 1-7.

needed transportation to and from school. It has been estimated that 300,000-350,000 handicapped students are in need of daily transportation. These young people (K-12) depend upon drivers, who it is hoped are providing a positive influence on the children riding on their buses. Handicapped children under the direction of Special Education Departments are being transported in regular school buses, compact buses, carry-alls, and station wagons.

According to some safety experts, the low accident fatality rate of school vehicles is not due alone to careful planning, but to the willingness of other vehicles to yield the right-of-way. Safety problems vary from school district to school district, but there are school vehicles on the road today that are not properly equipped and poorly designed. Also, many school vehicles are over-crowded and are operated by incompetent and untrained drivers who often are unsupervised.

Drivers of vehicles transporting handicapped students have other problems: some students must be carried to and from their homes; some are in wheel chairs or on crutches and must be boarded via a special ramp or power lift mounted to the chassis frame with a sufficient capacity to lift wheel chair, occupant, and attendant.[5]

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[5]National Commission on Safety Education, Minimum Standards for School Buses (Washington, D.C.: National Education Association, 1964), pp. 54-56.

The transportation demands of handicapped children which the above problems create are numerous. Meeting these demands requires trained drivers who can meet basic tasks of personal care, communications, and other situations for a smooth and efficiently operated vehicle. In addition, these demands require a smooth and efficiently run organization that understands the problems that drivers have in the transportation of handicapped students.

"Handicabs" of Milwaukee is an unusual organization which meets some of these requirements and in the process transports 800 to 1,000 handicapped children per day.[6] The demands and responsibilities that drivers transporting handicapped students have are tremendous in the overall educational program. Also, the driver is expected to drive through rapidly growing suburban areas, on expressways with faster moving traffic, and with increasing numbers of students. The driver needs a better understanding of the various problems he encounters under such conditions.

Obviously, the selection, inspection, and maintenance of all school vehicles is an important phase in the total pupil transportation program.

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[6]National Safety Council, "Handicapped Man Provides Transportation Service," Traffic Safety (February, 1971), p. 29.

The responsibility of driving a school vehicle and the importance attached to this task by certain school administrators is expressed well by Paul W. Kearney when he said:[7]

> The man who drives a bus load of children to school every day, in all kinds of hazardous highway and weather conditions, is charged with grave responsibility. Together with a ship's captain, or an airline pilot, precious human lives depend upon his experience, skill, and judgment. Yet, despite the increasing dangers of highway travel, many communities pay minimum attention to the dependability of their school bus drivers.[8]

Today all states have expanded their transportation program for handicapped students. Special vehicles are needed to provide special service doors, hydraulic lifts, ramps, stanchions, grab handles, and wheel-chair anchors to assist the handicapped child. The desirability of aids on vehicles to transport the handicapped should be examined in order to provide the driver with needed assistance.

There are some states that require no physical examination or make provisions for character references to determine emotional suitability of drivers.[9] However,

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[7] Herbert Stack and J. Elkow, Education for Safe Living (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1966), p. 307.

[8] Kearney, Paul W., "Who Drives Your School Bus?" Safety Education (March, 1954).

[9] Physicians for Automotive Safety, How Safe Is a School Bus? (Springfield, N.J.: Physicians for Automotive Safety, 1971), pp. 15-18.

the majority of states call for such general qualifications as a special driver's license, age requirements, first aid training, and a written test. Also, a road test in a school vehicle is a standard called for by some states.

There seems to be a need for additional legislation within the framework of Standard Seventeen regarding drivers who transport handicapped students. There is a need to update and expand the educational and selection technique and methods on the national level for persons who are going to operate special vehicles. The programs could be provided in a number of ways. Hopefully, these programs will become more evident as this study progresses.

The writer feels that the selection and education of drivers of handicapped school children has not kept pace with the increasing enrollment and demands for additional vehicles to transport these children. The transportation of handicapped students can be better administered than they are at the present time. Many different types of training programs are now in use throughout the United States. Once a driver has been selected and trained he should be familiarized with his equipment, the routes over which he will operate, the areas he will serve, the schools he will serve, the schools he will service, and the students he will transport. An important component of a pupil transportation program to improve the selection and training was effectively stated as follows:

> The school-bus driver is the most important single factor in the bussing system--indeed he could be described as the most important person in the whole school system since failure on his part could result in tragedy for a child, thereby rendering superfluous the educational advantages the school has to offer. It would therefore seem rudimentary that anyone with the responsibility of driving a bus full of children be in good health, both physically and mentally.[10]

Statement of the Problem

The purpose of this study was to survey State Departments of Education and selected school systems to identify current and recommended practices in the transportation of handicapped students to and from school. In addition, an advisory group of experts was asked to make a critical evaluation of recommended practices. It is hoped that the identification of recommended practices by school officials and the advisory group of six experts might encourage a more widespread adoption of programs in which handicapped students are transported.

Importance of the Study

The writer found a great deal of information available on pupil transportation in general, but very little in the related area of transportation of the handicapped. This study will try to identify current and recommended practices in the transportation of handicapped students to and from school. A survey of the state

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[10]Physicians for Automotive Safety, How Safe Is Pupil Transportation? (Springfield, N.J.: Physicians for Automotive Safety, October, 1967), p. 3.

departments of education and selected school systems to determine current practices will be used as the instrument for gathering data on a national level. The information tabulated from the survey questionnaire should identify the following:

(1) The administrative policies currently employed and others recommended by state departments of education and selected school systems in transporting handicapped students to and from school;

(2) The current and recommended practices of driver selection by state departments of education and selected school systems transporting handicapped students;

(3) The current and recommended practices for instructional programs employed by state departments of education and selected school systems for drivers transporting handicapped students;

(4) The current and recommended practices of the type of vehicle and equipment used for the transportation of handicapped students.

The above will aid in filling the void that now exists in our understanding of transporting the handicapped student to and from school.

Definition of Terms

Aids or Monitors.--Persons to assist the driver with the handicapped vehicle when transporting the children to and from school.

Compact Buses, Carry-Alls, Station Wagons, Regular School Buses.--Refers to vehicles used to transport handicapped children.

System.--A statewide educational organization and all of its local subsystems, or the local school district including all of its schools.

Education of Drivers.--Refers to classroom and behind the wheel instruction for bus drivers at the time of his/her employment, and/or in-service instruction.

Handicapped Student.--Any physically, mentally, or emotionally disturbed student.

Hydraulic Lifts, Ramps, Stanchions, Grab Handles, and Wheel-Chair Anchors.--Equipment used in vehicles transporting handicapped students.

Seat Restraining Devices.--A seat belt or restraining harness used on vehicles transporting handicapped students.

Special Service Door.--This door is for loading and unloading handicapped students in wheel chairs or on crutches, by use of a ramp or hydraulic lift mounted to the frame of the vehicle.

State Department of Education.--The principle supervising educational agency in each state.

Students Transported Daily.--A student is counted only once for each day transported, although usually two one-way trips or more are made daily.

Delimitations of the Study

A total of 150 survey questionnaires was mailed to 50 state departments of education and 100 school systems randomly selected from the American Education Directory (1972).[11] It was found necessary to delimit this study in the following way:

1. The state departments of education and selected school systems provided the current and recommended practices in their representative states and school systems.
2. All 100 school systems were public schools.

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[11]Patterson's American Educator, Educational Directories Inc., LXVIII (Mt. Prospect, Ill., 1971).

3. Two school systems in each state were randomly selected by use of a Random Digits Table.[12]

   a. The large school system selected had a student population of 14,000 and more students.

   b. The small school system selected had a student population of 13,999 and less.

4. The questionnaires were limited to data which could be provided by the school systems and departments of education.

5. With the exception of four additional questions directed to the state departments of education, both questionnaires were the same.

6. Data information for this study was collected during the months of January and February, 1973.

7. Data collected from state departments of education, school systems, and advisory group members were tabulated separately and expressed in percentages to the nearest tenth.

8. This study is limited to only the data collected from the questionnaire, and its findings recorded from this research can only be applied to the state departments of education and those of the

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[12]William L. Hayes, Statistics (New York: Holt, Rinehart Wilson, 1963).

randomly selected school systems replying to the descriptive survey.

Organization of the Remaining Chapters

Chapter I included an introduction to the study, the statement of the problem, definition of the terms used, the importance of the study, assumptions upon which the research was based, and limitations of the study.

Chapter II will summarize the literature pertinent to this study.

Included in Chapter III are the methodology and procedures utilized in the gathering of the data from the survey instrument. A detailed outline of the sampling distribution with sampling procedures and the project design is also a part of this chapter.

In Chapter IV is found the analysis of the data in narrative and tabular form.

Chapter V contains the summary, major findings, conclusions, recommendations, implications for future research, and a discussion.

CHAPTER II

REVIEW OF THE LITERATURE

Since the primary purpose of this study was to identify current and recommended practices in the transportation of handicapped students, the principle focus of this review is the literature in several areas related to pupil transportation. This chapter summarizes the limited field of literature pertaining to this study.

A comprehensive search of the Michigan State Department of Education library, the Thesis Library at Michigan State University, and University Micro Films at Ann Arbor, Michigan, was carried out.

Mader, in a study conducted at Michigan State University, reported that some studies in public schools have involved administrative attitudes as they relate to the handicapped. However, very few studies have been concerned with attitudes held by special educators toward handicapped students in our society. Based on what is considered to be a comprehensive review of contemporary literature, no researcher was found who sought to determine the attitudes held by the special educator or

administrator toward handicapped students.[1] This type of information is important if there is to be an improvement of current practices of transporting handicapped students to and from school.

Much of the literature included short articles which appeared in a number of publications in the form of speeches, reports, and proceedings of seminars and professional meetings. Some doctoral dissertations and survey studies were inclusive in regard to pupil transportation in general; however, very little of the literature covered the specific area of transporting handicapped students.

Administrative Problems

To design and implement an effective program for transporting handicapped students, leadership roles are necessary from state departments of education as well as local school administrators.

At the 1965 National Safety Congress Jenkins pointed out that it is an accepted fact today that "job environment affects the attitude of any worker." The same is true of school bus drivers. Special education opportunities are given to mentally and physically

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[1]John B. Mader, "Attitudes of Special Educators Toward the Physically Handicapped and Toward Education" (unpublished Ed.D. dissertation, Michigan State University, 1967), p. 18.

handicapped children that involve special bus routes, door-to-door service, and wheel-chair cabs when transported to and from schools. The following suggestions were recommended:

1. Give specific instructions concerning the authority of the school bus driver.
2. Give instructions in human relationships as they relate to children.
3. Give instructions in safe driving techniques:
   a) Provide a safety manual.
   b) Test all applicants.
   c) Train new drivers in behind-the-wheel phase of instruction.
   d) Give road test and written examinations covering the "Operation Policies and Safety Manual."
   e) Retrain and test drivers whenever the need arises.
   f) Have in-service meetings where (organization meetings) drivers receive one hour of pay.[2]

Information from Wilson's article pointed out that in some school systems where there are few or no facilities for the physically, mentally, or emotionally handicapped, students are often provided with homebound instruction, even though this is a less desirable arrangement than classes suited to their particular needs. This situation also exists in sparsely settled rural areas where the problems of transporting handicapped students great distances makes special classes impractical, yet some school systems permit the transportation of handicapped students by regular school buses. However, the

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[2]John Jenkins, "Job Environment Affects Attitudes," National Safety Congress Transactions, XVII (Chicago: National Safety Council, 1965), 47-51.

physically handicapped child must be made aware of his limitations, as well as his abilities, and be given some assistance by either the driver or an aid.[3] Calovini pointed out that:

> Scheduling for transportation of handicapped students is a demanding task for the administrator of the special education department. The principal should work with the administrator and the special classroom teacher in developing procedures which parents can follow on days when children must be absent from school. It is unsound in terms of time and money to permit the driver to make extended trips to pick up children only to find that they will not be attending school that day. A routine procedure should be devised whereby the parents must assume responsibility for notifying school authorities when transportation will not be needed.[4]

Bean, a specialist in Policy Research and Legislation in the Office of Planning and Policy Development, Rehabilitation Services Administration, Washington, D.C., stated the following:

> Those who have experienced physical disability, or those professionals in rehabilitation who work with the physically disabled, soon learn that transportation looms as a major problem. One approach to making bus systems accessible to the handicapped would be to redesign the buses and incorporating some necessary design features. General Motors has developed what it has named the RTX (Rapid Transit Experimental). Among other features, the RTX could squat to 9 inches from the ground to assist in accessibility. Transportation problems

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[3]Marguerite Wilson, "Crippled and Neurologically Impaired Children," Exceptional Children in the Schools, ed. by L. M. Dunn (New York: Holt, Rinehart and Winston, Inc., 1965), pp. 463-519.

[4]Gloria Calovini, The Principal Looks at Classes for the Physically Handicapped (Washington, D.C.: The Council for Exceptional Children, N.E.A., 1969), pp. 28-30.

> of the handicapped are far from being solved, but stirrings in federal, state and local governments and in private organizations attest to recognition of the extent and impact of the problem. With this awareness progress will come.[5]

Today, that which is known about the transportation problems of the handicapped, is mostly of the anecdotal variety. Present administrative practices and procedures in special transportation are not very systematic. With this in mind, Congress developed a proposal to establish a National Commission on Transportation and Housing for the Handicapped (March 20, 1972).

Wilson appeared before the United States Senate's Special Committee on Aging in October, 1971, with the following recommendations:

(1) That a federal law be enacted making it mandatory for all newly built buses to be equipped to accommodate wheel-chair and other elderly and handicapped passengers.
(2) That no separate transportation systems be developed for the handicapped and elderly, except in rural areas where no public transportation exists, and areas with a planned bus conversion program. In my opinion this type of segregation would lead to higher cost and inadequate transportation for the elderly and handicapped. It seems practical to avoid any duplication of facilities--and additional operating expenses--when thoughtful planning and thorough consideration can produce a single system for all.[6]

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[5]William Bean, "Transportation Overview," Rehabilitation Record (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Rehabilitation Services Administration, July and August, 1972), pp. 1-6.

[6]Harold L. Wilson, "Barrier-Free Rapid Transit For San Francisco Bay Area," Rehabilitation Record

Weingold cited in his article that many handicapped children are "prisoner-like" because of "homebound instruction." He pointed out that the handicapped do not have the opportunity to get out of their homes or into their community because of the individual's own shortcomings or the failure of society to provide meaningful activities. In New York State, the one thing that helped to solve this problem was the enactment of a provision calling for the mandatory transportation of handicapped children to and from school through the Education Law.

Furthermore, the doubly handicapped (such as the mentally retarded, cerebral palsied) were provided with buses equipped with hydraulic lifts and other special equipment. Presently, there are 12,500 handicapped children going to public schools and being transported at public expense in the state of New York. The great increase of doubly handicapped, physically handicapped, and mentally retarded leaving their homes to attend school and employment at sheltered workshops is occurring because the aforementioned legislation is making transportation available to all.

It was pointed out that agencies engaged in helping the handicapped must embark upon public information and legislative campaigns as a means of creating interest

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(Washington, D.C.: U.S. Department of Health, Education, and Welfare, Rehabilitation Services Administration, July and August, 1972), pp. 7-10.

at the community level. Studies directed to the transportation problems of the handicapped must be financed through the legislature.[7]

Driver Selection and Training

Driving defensively is an important element of the accident prevention program. At the 1970 National Safety Congress, Ray Martinez stated a number of facts that are important to the National Safety Council's Defensive Driving Course. Records show the course has been successful in the goal of reducing accident frequency. At Fort Hood, Texas before DDC, Army records showed one soldier fatality every twelve days in a privately owned vehicle, and one soldier injured severely in a privately owned vehicle every four days. One year later, after the Defensive Driving Course, one soldier died every thirty-six days, and one was injured every nine days, in privately owned vehicles. The Defensive Driving Course teaches drivers how to avoid errors and how to avoid being trapped in accidents by the errors of others. Defensive Driving will be as successful in helping school bus drivers to avoid accidents as it was to the Army or any other group of drivers. Some fleets

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[7]Joseph T. Weingold, "Unbinding the Homebound Through Mobility," Rehabilitation Record (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Rehabilitation Services Administration, July and August, 1972), pp. 11-14.

are now giving the course to their drivers again, after three years, as a refresher.[8]

Wizotzkey's presentation on Driver Selection at the 1969 National Safety Congress stated the following:

> School transportation is annually becoming a more integral part of the education program. Great strides have been made in all facets of the transportation field; but probably in the most important phase, the selection and training of drivers, we have lagged behind. Greater efforts are being made to have all school age youth in school, even though they may have physical or mental handicaps or are emotionally disturbed. The added emphasis on special education opportunities has increased the responsibilities of the school bus driver and his supervisor.[9]

Some handicapped pupils transported were sixteen to seventeen years of age, and were being admitted to school for the first time. Because of this, it was soon realized that drivers of the vehicles transporting these students must have special qualities and must be selected for their ability to handle the unique problems that arise.[10]

Strasser included in his study a survey of practices and procedures in driver selection, training,

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[8]Ray Martinez, "The Golden Rule," National Safety Congress Transactions, XVII (Chicago: National Safety Council, 1970), 10.

[9]D. G. Wizotzkey, "The Experts Respond," National Safety Congress Transactions, XVII (Chicago: National Safety Council, 1969), 20.

[10]Ibid.

and education for commercial motor vehicle fleets. A questionnaire consisting of 350 items was mailed to 270 trucking companies across the nation. This study cited that some practices and procedures currently used in motor fleets are essential in any basic program while other practices and procedures are valuable in certain programs, but not important in all programs. He recommended the personal investigation of the new applicant. Because of the nature of work of the school bus driver, the importance of personal-contact investigation should be a procedure for all new applicants. Also, further investigations should include personal references, previous employers, insurance company records, and checking police records for all new drivers.[11]

Loshbough pointed out the importance of driver training programs for school bus drivers with the behind-the-wheel training phase being the most essential. If there is no training program for such drivers in the school system, one should be adopted even on a small scale. According to Loshbough, the person who conducts the training sessions should have a well-organized program and specific objectives in mind. The facilities for conducting the training sessions should be adequate

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[11]Marland K. Strasser, "The Development of a Program of Driver Selection Training and Education for Commercial Motor Vehicle Fleets" (unpublished Ed.D. dissertation, New York University, 1949), pp. 49-165.

to cover the type of training the instructor is providing. In order to motivate the school bus driver, the instructor should be qualified and able to make the presentations interesting and beneficial. In an effort to assess the training program, it is important to evaluate, each year, the methods needed to improve and to make adjustments for old and new pupil transportation problems that may develop.[12]

A great need for alert and skillful school bus drivers, properly trained, has grown steadily during the last fifteen years. John Barkham presented a paper at the 1967 National Safety Congress concerned with a school bus driver training program. Different states have used various agencies to administer driver training programs throughout the nation. Some states have used university service centers to direct such a program. Other states have turned to departments of highway safety as the agency to administer school bus training programs.

It seems apparent that a need for an advanced course in school bus driver training should be developed. The purpose is to serve as additional training for drivers who have completed a basic course and who would benefit from a refresher course as well as a greater

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[12]William G. Loshbough, "The Experts Respond," National Safety Congress Transactions, XVII (Chicago: National Safety Council, 1969), 22-24.

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study in depth in the areas of public relations, first aid, safety and emergency procedures, and transporting handicapped children.[13]

Patterson, in a 1959 study of school bus drivers, pointed out that state departments of education should be involved in the administration of the program of driver election and education including many other areas of upil transportation.[14]

The following suggestions for school bus driver election and education should be considered by those aving administrative responsibilities for pupil transortation:

1. Adequate salary schedules be set up to attract competent drivers.
2. Drivers be hired during the late summer in order that adequate education and training can be given prior to the opening of school.
3. Local school boards assume major role in the selection of school bus drivers.
4. Medical examinations of the individual drivers be the deciding factor in determining the maximum driving age of the school bus driver.
5. Driver education and training be under the supervision of the state department of education and be conducted by a state institution of higher learning or other approved agency.
6. Personnel employed in this training be of high quality with a broad understanding of the problems involved.

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[13] John Barkham, "Setting Up and Administering a hool Bus Driver Training Program," National Safety Conss Transactions, XVII (Chicago: National Safety uncil, 1967), 32-35.

[14] Ronald D. Patterson, "Recommended Practices and cedures for the Improvement of Programs for the ection and Education of School Bus Drivers" (unpublished D. dissertation, New York University, 1959), pp. 148-50.

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pp. 18-20.

7. Only the best equipment be used in transporting children and that it be maintained in good working condition.
8. The general public be adequately appraised of certain rules and regulations in regard to school bus operation.
9. Legislation be enacted to protect drivers and pupils while riding in, leaving, or entering a school bus.[15]

Every supervisor of pupil transportation is ensely interested in getting the best school bus vers possible. Carlisle Beasley Jr., pointed out t standards for such specific items as experience, racter, and physical examinations may be found in the lations of some states, but very few states have blished a comprehensive set of standards to select erly qualified drivers of school buses. In the ction of school bus drivers, more attention to items as character, age, and emotional stability should onsidered.[16]

Abercrombie (Assistant Executive Sec., National ation Association) stated that the selection of ol bus drivers should be carried forward on a pro- ional and businesslike basis. Criteria for the ction of drivers should be stated clearly and based tate requirements, supplemented by local needs. The

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[15] Ibid., pp. 150-51.

[16] Carlisle Beasley, Jr., "Selecting and Training chool Bus Driver," Traffic Safety (May, 1973), 8-20.

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means of recruiting good candidates tomorrow is to
good program today--a program in which the greatest
ble care and consideration is devoted to treating
school bus driver as a very important person.[17]

Yeater, Superintendent of Schools in Huntington,
Virginia, further supported this view by stating
proper school bus driver selection just happens to
ne of the most perplexing problems we have to solve.
ator selection is an educational problem, not just a
em involving the physical mechanics of driving a
In education the goal should be to get the highest
ble quality of transportation for the total edu-
nal program of our children.[18]

Vehicles, Equipment, and Inspection

Parents who think their youngsters are "safely"
o school when they dash to the bus stop on time have
er "think" coming, according to a group of George
gton University law students.

These law students, together with the Nader-
ated Center for Auto Safety, Washington, D.C., have

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[17] S. A. Abercrombie, "What Can We Do To Improve
Recruitment?" National Safety Congress Transactions,
hicago: National Safety Council, 1966), 87.

[18] K. D. Yeater, "What Can We Do To Improve Driver
ment?" National Safety Congress Transactions,
icago: National Safety Council, 1966), 84.

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sed eight engineering performance standards for
l buses. They include high back-padded seats,
tural integrity of the bus body, front passenger
belts, better constructed steering wheels, safer
doors, and the elimination of stanchions.

The group (called BUSWREC, BAN Unsafe Schoolbuses
n Regularly Endanger Children) stated that the primary
e of injuries in school bus accidents is poor seating
gn. Weak structural design--the case with a New
co school bus which "crumpled like an accordian" in
cent fatal collision--causes the most deaths.[19]

The University of California, Los Angeles, TRAUMA
rch Group, in a recent study, stated that school bus
design may be responsible for up to 90 per cent of
njuries in lower speed collisions. This is based on
e-by-case investigation of school vehicle collisions
occurred during a ten-year period.[20] They advocated:

> ne redesign of school bus seats and the inclusion
> seat belts or other restraint systems for every
> hool bus occupant--all passengers and the driver.
> was further recommended that better means of
> cape after impact be provided and roof ports
> lowing quick egress from the inside and access
> om the outside be installed. They urgently

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[19] Marion Martin, "DOT Cited for Neglect of School
ety," Gannett News Service, The State Journal,
, Michigan, November, 1972.

[20] J. Daughton, "School Bus Collisions," Journal
ic Safety Education (January, 1973), 24.

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advise that school bus passengers of all ages be instructed and drilled in evacuation procedures. The research group admonished educators to review school bus safety procedures regularly.[21]

Kurre cited that safety in school transportation achieved in an entirely different manner than that l for other automotive products. It is achieved ough the team effort of the operator, state super- or, and the manufacturer, and is based on experience research. Always remember that a school bus is ke any other vehicle. School bus standards, there- , must be developed from research and experience ctly relating to this type of vehicle rather than ming from other vehicles. The danger of a standard hat it is likely to be accepted as a final word.[22]

Stack and Elkow pointed out the importance of dards for school buses so that no substandard or fe vehicles are on the road. It is important that school vehicles have periodic inspection, the nucleus effective preventive maintenance program and a factor in a safe pupil transportation operation. ven though periodic school bus inspections are con- d by the state's Department of Motor Vehicles or

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[21] *Ibid*.

[22] R. B. Kurre, "Bus Standards and Research Work- National Safety Congress Transactions, XVII (Chi- National Safety Council, 1966), 103-06.

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ate Police, all drivers should also inspect their hicles at the start of each trip.[23]

Lordahl, owner and manager of "Handicabs" (a con- rn specializing in special vehicles used to transport ndicapped individuals), pointed out the importance of uipping school vehicles with two-way radios. The sponsibility of a driver who has a breakdown in a gular school bus creates many problems; but when the s is transporting physically handicapped students, ecial problems of such students further complicate situation when a radio is not available.[24]

Lordahl indicated the importance of having two- radios on school vehicles with the following statement:

> If a Handicabs vehicle without a radio were to break down, the driver and the children would have to sit and wait for someone to happen by for assistance. With radio, if one of our vehicles should break down, the driver can have help in a matter of minutes. Drivers are able to learn about cancellations ahead of time over the two-way radio and thereby save unnecessary trips.[25]

A need is indicated for better communications via -way radios to keep in constant contact with all drivers.

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[23] Herbert Stack and J. Elkow, Education for Safe ng (Englewood Cliffs, N.J.: Prentice-Hall, Inc.,), pp. 310-11.

[24] National Safety Council, "Handicapped Man Pro- s Transportation Service for Other Disabled Persons," fic Safety (February, 1971), p. 29.

[25] Ibid.

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ugh this means, both drivers and administrators can be tantly alerted to changing conditions in any area the cles may be entering. The safety and well-being of students are protected.

McCall reported that vehicles of less than 54- capacity constructed for transporting handicapped ren should have fuel tank standards meeting the rements of large school buses. The fuel tank may unted on the left chassis rail or behind the rear s with fill pipe located on the right side of the Vehicles transporting twenty-three or less handi- d students should have fuel tanks with a capacity ss than thirty gallons.[26]

Summary

An extensive search of the literature presented is chapter included: (1) administrative problems nsporting handicapped students; (2) driver selection raining of school bus drivers; and (3) equipment, tion, and maintenance of all school vehicles.

The studies and writings call for careful school iver selection and training as the key to a good record. It was found that few studies involved, ically, the transporting of handicapped students

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[26]G. A. McCall, "School Bus Chassis Standards," al Safety Congress Transactions, XVII (Chicago: al Safety Council, 1970), 16-19.

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nd from school. Most studies were concerned with regular school bus driver.

Some of the literature was concerned with uniform e standards for school buses to meet or surpass the onal minimum as recommended by the National Conce on School Transportation. Vehicle standards d also be adopted to make all buses safe for transng handicapped students to and from school. In ion, all school bus passengers should be instructed rilled in evacuation procedures.

All vehicles transporting handicapped students d also be equipped with two-way radios to keep rs and administrators abreast of what is going on school vehicles are expensive and they carry a less cargo.

Chapter III will indicate the methods and proes used in the descriptive survey to obtain infor- from the different sources selected to supply sary data for this study.

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CHAPTER III

DESIGN AND METHODOLOGY

This chapter contains the scope of the study, ction of the sample, development and pilot testing ne questionnaire, conducting the survey, follow-up edures, and the analysis of the data.

Scope of the Study

The primary purpose of this investigation was to ze and describe the role of state departments of tion and selected school systems in transporting capped students to and from school. As a means of ifying current practices of selection and instruction hool bus drivers who transport handicapped students, vey questionnaire was developed. The questionnaire tilized to gather necessary information.

It was determined at the inception of this study data would be sought on a national level from the state departments of education and two school ns within each state to assist in identifying at and recommended practices in the transportation

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andicapped students. The respondents, distributed hey were, provide a good sampling for this particular y.

Selection of the Sample

The sample population was determined by using the om Digits Table[1] to select a large and small school em in each state. A school system was determined to rge if it enrolled 14,000 or more students. If a l system enrolled 13,999 students or less, it was mined to be small. The school enrollments were ned from the American Education Directory[2] (1972). ames of the selected school systems from each state ding to student enrollment is located in Appendix A.

All fifty state departments of education were ted.

The use of the questionnaire approach in research s has been stated by Sax (1968) and Backstorm and (1963) as a very effective method for information tion. The validity of the questionnaire in a ptive survey was pointed out by Spar and Swenson

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[1]C. V. Good and D. E. Scates, Methods of Research ork: Appleton-Century-Crofts, Inc., 1954).

[2]Patterson's American Educator, Educational ories Inc., LXVIII (Mt. Prospect, Ill., 1971).

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1930).[3] The survey questionnaire used for this study rovided the opportunity for much information about the ommon problems experienced by the state departments and elected school systems. Two questionnaires and cover tters were designed for this study (see Appendices B d C). One was mailed to each state department of edu- tion and the other sent to the 100 school systems ndomly selected. Basically both questionnaires are milar, except that the state department questionnaire d four additional questions. The names of the State partment Directors in charge of Pupil Transportation e included in Appendix D.

Developing and Pre-Testing the Questionnaire

One of the critical phases of the study was the velopment of the instrument. The first task was to ablish guidelines by which it would be possible to ect the activities to be surveyed. For an item to included in the survey it was decided that it should

(1) an area of concern which affects drivers transporting handicapped students to and from school,

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[3] Walter Spar and Rinehart Swenson, Methods and us of Scientific Research (New York: Hoya and Breth,), p. 232.

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(2) stated so as to eliminate any tendency for conflicting interpretations and should be as specific as possible.

The survey instrument in addition to asking for ific data related to transporting handicapped stus, also included a series of open-ended questions gned to obtain additional information from the ondents. It was felt that the information could ide valuable suggestions or insights regarding the of transporting handicapped students. This being ecific feature of the questionnaire, the data ived were included in the narrative of Chapter IV.

With the completion of the questionnaire, three igan schools were asked to participate in a pilot . Administrators in these systems who were assigned esponsibility for programs in which handicapped stu- are transported, reacted to the questionnaire and tted suggestions for modification and improvement.

In addition, Mr. Harold Wagner, Supervisor of Transportation of the Michigan State Department ucation reviewed the instrument.

Withey recommended pre-testing any instrument as ndard practice when he said:

> ne inevitably discovers that the best designed eries of questions still include ambiguities. or this reason it is a standard practice to

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pre-test any instrument with a number of respondents so that these errors can be eliminated so far as it is possible.[4]

As a result of pilot-testing, two revisions in questionnaire were made. Two items were reworded provide better clarity. The two questionnaires were ded into the following four sections:

Section I - Administrative Procedures

Section II - Selection of Drivers

Section III - Instructional Programs

Section IV - Vehicle and Equipment

Section I sought information relative to the nistrative functions of the state departments of ation and the selected school systems within each e in so far as transportation of the handicapped was erned. This section requested information in refer- to: (1) printed policies covering job descriptions rivers transporting handicapped students, (2) in- ce instruction for drivers, (3) Red Cross First Aid e, (4) The National Safety Council's Driver Improve- Course, (5) administrative guide to provide the r with basic knowledge, (6) total number of handi- l students transported, (7) the number of drivers ically hired, and (8) number of vehicles used to ort handicapped students to and from school.

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[4]Stephen B. Withey, "Survey Research Methods," opedia of Educational Research, ed. by Chester W. (New York: The MacMillan Company, 1960), p. 1,448.

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Section II was designed to cover selection of ivers and called for such information: (1) application formation, (2) medical and visual examinations, (3) type tuberculin test, (4) how often a medical and visual -examination is called for, and (5) the minimum and ximum age limits for drivers transporting handicapped udents.

Section III dealt with instructional programs rrently being offered and in addition, sought infor- ion about the following: (1) qualification of structors, (2) preparation and training of drivers nsporting handicapped students, (3) areas included both the classroom and behind-the-wheel (bus) phase instruction, (4) emergency evacuation drills, and whether the driver has to complete a final exami- ion at the end of the course.

Section IV covers the minimum vehicle standards respect to equipment used for transporting handi- ped students. The following were also investigated: type of vehicle(s), (2) the color of the vehicle, the required standards for strength and rigidity of ramps, power lift equipment, and other special equip- , (4) two-way radios, (5) restraining devices when- the vehicle is in motion, and (6) the type of ection for vehicles transporting handicapped students.

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Selection of Advisory Group

To lend support to or reinforce the recommended ctices reported by questionnaire respondents, an isory Group consisting of six persons having pupil nsportation responsibilities at the national level e asked to complete the survey concerning recommended ctices only, and to make further suggestions that y felt would be beneficial to a program of transport- handicapped students. The following criteria were sidered in the selection of the six expert members he advisory group: (1) knowledge of the selection training process of school bus drivers; (2) exper- e as a supervisor or driver in pupil transportation n a related field; (3) currently employed in public ol safety programs with transportation duties.

A letter (Appendix E) was mailed to those per- considered well qualified in this area, asking them erve and all answered in the affirmative. The names he persons selected for the advisory group are uded in Appendix F.

Suggestions and recommendations made by group rs were analyzed and tabulated separately and are nted in Chapter IV.

Conducting the Survey

On January 9, 1973, the complete packet of ials was mailed to the 50 state departments of

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cation and 100 school systems. It was important that questionnaire be answered by the administrator most sely responsible for the pupil transportation program. some cases, the questionnaire was completed by a lson person working out of central administration e in other cases the questionnaire was answered by supervisor of school transportation programs. The ol systems contacted were most helpful in channeling requests regarding pupil transportation of handicapped ents to the person concerned within the school system. o time was there any doubt that this individual would apable of providing objective data for the study.

As questionnaires were returned, the date, names, itles of the respondents were recorded on a master Copies of all survey materials are included in dices B and C.

Follow-Up Procedure

A follow-up letter including another question- was mailed four weeks later to those who had not ided (see Appendix G). All questionnaire responses abulated according to state departments of edu-, large school systems, and small school systems. sponses were then transferred to computer cards ta processing.

Of the 150 questionnaires mailed, 100 were ed. This was a 66.6 per cent response of the

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TABLE 1.-

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leted questionnaires. Data from all items in the
uestionnaires were organized into individual tables.
responses for all current and recommended practices
presented. Data from state departments of education
chool systems that were incomplete were not tabulated.
dix H contains the responses from the initial and
w-up questionnaires in graph form.

Table 1 presents the number and percentage of
ionnaire returns from the state departments of edu-
n, large school systems, and small school systems.
table provided the information from the first and
mailing returns of all respondents.

l.--Number and percentage of questionnaire returns

	Respondents							
	State Department of Education		Large School Districts		Small School Districts		Total	
	No.	%	No.	%	No.	%	No.	%
lailing	50	100	50	100	50	100	150	100
lailing ns	35	70	27	54	24	48	86	57.3
Mailing ns	3	6	6	12	5	10	14	9.3
onse to r 2nd ng	12	24	17	34	21	42	50	33.3
l	38	76	33	66.6	29	58	100	66.6

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Analysis of Data

The questionnaire consisted of six pages of items
at related to transporting handicapped students to and
om school. Several questions provide open-ended responses
a better understanding of the program. Each item on the
stionnaire had four possible places where responses
ld be made. A YES and NO response was selected for
h question as to Current and Recommended Practices.

The analysis was based only on the state depart-
ts of education and those selected school systems
lying to this descriptive survey. The data for all
egories are presented together, but tabulated separately,
percentages to the nearest tenth. A narrative
cription of the analysis is followed by tables present-
the responses of the state departments of education
the selected school systems by current and recommended
tices used within their states and school systems.
questionnaire item is presented in an individual
e. Each table contains the percentage figures for
e departments of education, large school and small
ol respondents indicating agreement and disagreement
both current and recommended practices.

Summary

This chapter included the methods and procedures
for: (1) selecting the sample, (2) the sampling
niques involved in the research survey, (3) developing

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d pre-testing the questionnaire, (4) conducting the
rvey and follow-up, and (5) tabulation and analysis
the data.

Presented in Chapter IV are the findings of this
rvey including data tabulation and analysis listed as
rcentages of responses by all state departments of
ucation and selected school systems.

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CHAPTER IV

ANALYSIS AND FINDINGS OF THE DATA

Date gathered by the methods described in Chapter
II are presented and analyzed in this chapter. The data
re presented in the four sections that correspond to
hose on the survey instrument. These sections are: the
ministrative procedures currently employed and others
commended by state departments of education and
lected school systems transporting handicapped stu-
nts to and from school; the current and recommended
actices of driver selection by state departments of
ucation and selected school systems transporting handi-
pped students; the instructional programs employed by
e state departments of education and selected school
stems for drivers transporting handicapped students;
the current and recommended practices of the type of
hicle and equipment used for the transportation of
dicapped students.

A questionnaire was sent to each of the fifty
te departments of education and thirty-eight depart-
ts (76%) returned usable questionnaires. A

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questionnaire was sent to one large school system randomly selected from each state and 33 school systems (66%) returned completed questionnaires. A questionnaire was sent to one small school system selected randomly from each state and 29 school systems (58%) returned completed questionnaires. A total of 150 questionnaires was sent and a total of 100 questionnaires (66.6%) was returned (Appendix J). A sufficient number of questionnaires was returned to provide the data needed to identify the current and recommended practices of transporting handicapped students. A number of persons did not respond to some of the questions while others indicated that they did not know or that their information would be of questionable value.

As reported in Chapter I the findings recorded from this research can only be applied to the state departments of education and those of the randomly selected school systems replying to the descriptive survey. The survey findings were presented together, but tabulated separately, in percentages to the nearest tenth. A narrative description of the analysis is followed by a table presenting the responses of the state departments and the selected school systems to the items appearing within the survey instrument. Each of the tables will show the total number and percentage of responses for both the current and recommended practices.

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In addition, some survey questions included open-ended sections asking respondents to provide additional data in support of their response to a particular item. These data have been compiled and are presented in Chapter IV following the narrative and tabular presentations of specific items included within the survey instrument.

Suggestions and recommendations made by a national advisory group of pupil transportation experts have also been tabulated and are included in this chapter.

Administrative Procedures

Table 2 presents the percentage of responses of state departments of education and randomly selected school systems to the following item: Does your state or school system have official printed policies covering job descriptions for drivers transporting handicapped students? (Item 1)

Table 2 shows that 34.3 per cent of the state departments of education had printed policies covering job descriptions for drivers transporting handicapped students. Eighty-two and six-tenths per cent of the state departments of education recommended this practice.

Of the large school systems responding, 21.9 per cent indicated that this was a policy for their school system. Sixty-nine and six-tenths per cent of the large school systems recommended the practice.

TABLE 2.
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ABLE 2.--States and school systems having printed policies elative to job descriptions for drivers transporting handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
34.3	82.6	21.9	69.6	20.7	77.3
65.7	17.4	78.1	30.4	79.3	22.7

/: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in cent; R = Recommended Practices expressed in per cent.

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Twenty and seven-tenths per cent of the small chool systems had such policies in effect, while 77.3 per ent were agreed that there should be such job descriptions.

Table 3 presents the percentage of responses of tate departments of education and randomly selected chool systems to the following item: Does your state or chool system policy for drivers transporting handicapped tudents include the following? (Item 2) The policies nclude character, mental ability, health, physical and sual abilities, emotional stability, and personal pearance for drivers transporting handicapped students.

a) Character

Table 3 shows that 69.7 per cent of the state partments of education had a policy that included a aracter reference for drivers transporting handicapped udents. All of the state departments recommended this icy.

Seventy-seven and four-tenths per cent of the ge school systems had a policy that included a char- er reference for drivers carrying handicapped students. ety-five and five-tenths per cent were agreed there uld be one.

The figures in the table reveal that 90.9 per t of the small school systems had the above policy and 7 per cent recommended it.

TABLE 3.--States and school systems having policies for drivers transporting handicapped students

Respondents

capped students

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
a) Character						
Y	69.7	100.0	77.4	95.5	90.9	93.7
N	30.3		22.6	4.5	9.1	6.3
b) Mental Ability						
Y	53.1	90.9	74.2	95.5	77.3	94.4
N	46.9	9.1	25.8	4.5	22.7	5.6
c) Health						
Y	78.8	100.0	80.6	95.5	91.3	92.9
N	21.2		19.4	4.5	8.7	7.1
d) Physical and Visual Abilities						
Y	78.8	100.0	80.6	95.5	87.9	93.7
N	21.2		19.4	4.5	13.1	6.3
e) Emotional Stability						
Y	54.5	100.0	70.0	95.2	95.5	86.7
N	45.5		30.0	4.8	4.5	13.3
f) Personal Appearance						
Y	78.8	100.0	80.6	95.5	87.9	93.7
N	21.2		19.4	4.5	13.1	6.3

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

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b) Mental Ability

Fifty-three and one-tenth per cent of the state departments of education had a policy that included checking the mental ability of drivers transporting handicapped students. Ninety and nine-tenths per cent of the state departments stated this as a recommended practice.

Table 3 indicates that 74.2 per cent of the large school systems had a policy that included checking the mental ability of drivers carrying handicapped students. The above policy was recommended by 95.5 per cent of the large systems.

Data show that 77.3 per cent of the small school systems had a policy that included checking the mental ability of drivers transporting handicapped students and that 99.4 per cent of the small systems recommended it.

c) Health

Seventy-eight and eight-tenths per cent of the state departments of education had a policy that included health standards for drivers transporting handicapped students. All of the state departments of education recommended such standards.

Table 3 shows that 80.6 per cent of the large school systems had a policy that included health standards for drivers and 95.5 per cent of the large school systems recommended this practice.

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The figures in the table reveal that 91.3 per ent of the small school systems had such health standards d 92.9 per cent of the small school systems recommended is policy.

d) Physical and Visual Abilities

The data in Table 3 reveal that 78.8 per cent of e state departments of education required drivers ansporting handicapped students to meet physical and sual standards. All of the state departments recom- nded this practice.

Table 3 further reveals that 80.6 per cent of e large school systems required drivers transporting ndicapped students to meet physical and visual standards d that 95.5 per cent of the large school systems recom- nded this policy.

Eighty-six and nine-tenths per cent of the small ool systems required physical and visual standards drivers transporting handicapped students and 93.7 cent of the small school systems agreed that such a icy was necessary.

e) Emotional Stability

Data show that 54.5 per cent of the state depart- ts of education provided for an assessment of emotional bility of drivers transporting handicapped students. was recommended by all state departments.

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Seventy per cent of the large school systems ssessed the emotional stability of drivers carrying andicapped students and 95 per cent of these systems ecommended the practice.

The data indicate that 95.5 per cent of the small hool systems assess emotional stability and 86.7 per nt of these same systems recommended this policy.

f) Personal Appearance

Table 3 reveals that 78.8 per cent of the state partments of education had a policy that included ecking the personal appearance of drivers transporting ndicapped students. All of the state departments were reed that such a policy was necessary.

Table 3 further reveals that 80.6 per cent of e large school systems checked the personal appearance drivers transporting handicapped students and 95.5 cent of the large systems recommended this policy.

Eighty-seven and nine-tenths per cent of the ll school systems checked the personal appearance its drivers and 93.7 per cent of the small schools ommended it.

Table 4 presents the percentage of responses of te departments of education and randomly selected ol systems to the following item: Does your state school system policy provide an evaluation of drivers nsporting handicapped students by use of the following

TABLE 4.--States and school systems having policies for the evaluation of drivers transporting handicapped students in the following areas:

Respondents

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
a) Physical Examinations						
Y	93.5	100.0	87.1	94.7	88.9	86.7
N	6.5		12.9	5.3	11.1	13.3
b) Personal References						
Y	58.1	95.0	77.4*	84.2*	96.0	85.7
N	41.9	5.0	22.6	15.8	4.0	14.3
c) Personal Interviews						
Y	62.0	95.0	83.9	94.7	96.0	92.3
N	38.0	5.0	16.1	5.3	4.0	7.7
d) Personal Inventory						
Y	35.7	78.3	46.7*	70.0*	54.2	66.7
N	64.3	21.7	53.3	30.0	45.8	33.3
e) Periodic Driving Test						
Y	61.3	94.1	63.3	89.5	73.9	86.7
N	38.7	5.9	36.7	10.5	26.1	13.3

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

*Items not completed by all respondents.

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ocedures: (Item 3) The following procedures include
ysical examinations, personal references, personal
terviews, personality inventory, and a periodic
iving test.

a) Physical Examinations

Data in Table 4 reveal that 93.5 per cent of the
ate departments of education had a policy that provided
r a physical examination of drivers transporting handi-
pped students. All of the state departments recommended
e above practice.

Eighty-seven and one-tenth per cent of the large
ool systems provided for a physical examination and
roximately 95 per cent of the large school systems
ommend this procedure.

Table 4 shows that 88.9 per cent of the small
ool systems had a policy that provided for a physical
mination and 86.7 per cent recommended this practice.

b) Personal References

Table 4 shows that 58.1 per cent of the state
artments of education provided for personal reference
cks, and 95 per cent of the state departments recom-
ed this practice.

The data indicate that 77.4 per cent of the large
ol systems provided for personal reference checks
84.2 per cent of the large school systems recommended
above practice. Two large systems did not respond.

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Ninety-six per cent of the small school systems
ed for a personal reference check. Approximately
cent recommended it.

Personal Interviews

Sixty-two per cent of the state departments of
ion had a policy providing for personal interviews
per cent of the state departments of education
ended this method of evaluation.

Data in Table 4 indicate that 83.9 per cent of
rge school systems reported having a policy pro-
for personal interviews while 94.7 per cent of the
school systems recommended it.

Ninety-six per cent of the small school systems
policy providing for personal interviews of
s transporting handicapped students and 92.3 per
f the small systems recommended the method.

Personality Inventory

Thirty-five and seven-tenths per cent of the
departments of education provided for a personality
ory check. Seventy-eight and three-tenths per cent
state departments recommended it.

The data reveal that 46.7 per cent of the large
systems had a policy providing for a personality
ry check and 70 per cent of the large school sys-
commended this practice. Three large school sys-
d not respond.

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Fifty-four and two-tenths per cent of the small systems had a policy for a personality inventory and 66.7 per cent of the small school systems ended this procedure.

A Periodic Driving Test

Table 4 shows that 61.3 per cent of the state ments of education provided for a periodic driving of drivers transporting handicapped students. Ninety- per cent of the state departments recommended such a

The data indicate that 63.3 per cent of the large systems reported having a policy providing for a dic driving test and 89.5 per cent of the large ns were agreed that such a test should be given.

Seventy-three and nine-tenths per cent of the school systems provided for a periodic driving nd approximately 87 per cent of these systems ended the above practice.

Other

Additional data provided by respondents through en-ended portion of this item have been compiled e presented below.

Two state departments of education provided procedures for driver evaluation. One requested records, while another had all drivers' records by the state police.

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Three large school systems reported additional
ures. Two indicated that all school bus drivers
heir driving records checked by the state police,
the other had all drivers screened by the local
e.

Four small school systems provided these procedures
river evaluation. One school system had a semi-
l driver evaluation and another had monthly safety
ngs. One small system administered a psychological
while another utilized daily observation of the
leet by the transportation supervisor.

Two advisory group members recommended that
should be a policy providing for the evaluation
l bus drivers, including those drivers transporting
capped students.

Table 5 presents the percentage of responses of
departments of education and randomly selected
systems to the following item: Does your state
hool system require any pre-service instruction
sroom or in-the-bus) before the applicant starts
g the bus? (Item 4)

Table 5 shows that 51.4 per cent of the state
ments of education required pre-service instruction
the applicant started driving. All of the state
ments recommended pre-service instruction.

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.--States and school systems requiring pre-service
tion (classroom or in-the-bus) before the applicant
starts driving the bus

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
51.4	100.0	87.0	100.0	72.4	78.6
48.8		13.0		27.6	21.4

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00 per cent.

= Yes; N = No; C = Current Practices expressed in
; R = Recommended Practices expressed in per cent.

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Eighty-seven per cent of the large school systems
d pre-service instruction (classroom or in-the-bus)
the applicant started driving the bus and all
ystems recommended such a program.

Of the small school systems responding, 72.4 per
quired pre-service instruction and 78.6 per cent
nded this practice.

Table 6 presents the responses of state depart-
f education and randomly selected school systems
following item: How many hours of pre-service
tion does the driver receive? (Item 4b)

Table 6 indicates that three state departments
ation required two, five, and six hours, respec-
of pre-service driver instruction (classroom or
bus) before bus operation. Fourteen other state
ents required nine or more hours of pre-service
tion. Twenty-one state departments did not
.

The current requirement of five large school
ranged from one to eight hours of pre-service
ion. Two large systems required two and four
instruction, while eleven other school systems
nine or more hours of pre-service instruction.
large school systems did not respond.

Twelve small school systems required pre-service
ion ranging from one to six hours in duration

TABLE 6.--Number of hours of pre-service instruction (classroom or in-the-bus) required before the applicant starts driving the bus

State Departments of Education		Large School Systems		Small School Systems	
No. of Above	No. of Hours	No. of Above	No. of Hours	No. of Above	No. of Hours
1	2	1	1	2	1
1	5	2	2	4	2
1	6	1	3	1	3
14	9 or more	2	4	2	4
21	No response	1	6	1	5
		1	7	2	6
		1	8	6	9 or more
		11	9 or more	11	No response
		13	No response		

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room or in-the-bus) for driver applicants. Six small systems required nine or more hours of pre- e instruction. Eleven small school systems did not d.

Table 7 presents the percentage of responses of departments of education and randomly selected systems to the following item: Does your state ool system provide in-service instruction for s transporting handicapped students? (Item 5)

The data in Table 7 indicate that 64.7 per cent state departments of education provided in-service ction for all drivers transporting handicapped stu- Ninety-five and two-tenths per cent of the state ents recommended in-service instruction.

Thirty-eight and seven-tenths per cent of the chool systems provided in-service instruction, per cent of the large school systems recommended

In addition the data show that 53.6 per cent of ll school systems favored such instruction.

Table 8 shows the number of hours of in-service tion received by drivers transporting handicapped s.

If yes, does the driver receive this in-service instruction every year? (Item 5b)

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7.--States and school systems providing in-service
ction for drivers transporting handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
64.7	95.2	38.7	80.0	53.6	75.0
35.3	4.8	61.3	20.0	46.4	25.0

Due to rounding, the totals may not always equal 100
per cent.

Y = Yes; N = No; C = Current Practices expressed in
nt; R = Recommended Practices expressed in per cent.

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3.--Drivers receiving in-service instruction annually

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
52.2	93.0	47.8	88.2	61.1	91.7
47.8	7.0	52.2	11.8	38.9	8.3

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

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Table 8 indicates that of the state departments
ucation responding, 52.2 per cent of the drivers
ved this in-service instruction every year, while
r cent recommended it on an annual basis.

Forty-seven and eight-tenths per cent of the
school systems provided drivers with this in-service
ction every year and 88.2 per cent recommended it
early basis.

Sixty-one and one-tenth per cent of the small
systems provided in-service instruction every year
.7 per cent recommended such instruction.

Table 9 presents the percentage of responses of
departments of education and randomly selected
systems to the following item: Does your state
ool system require the basic Red Cross First Aid
for all drivers? (Item 6)

Data in Table 9 show that 28.9 per cent of the
departments of education required the basic Red
First Aid Course and 85 per cent of these same
nents recommended the course.

One-fourth of the large school systems required
ic Red Cross First Aid Course for all their
and 90 per cent of these large systems recommended
rse.

Table 9 further shows that 37.9 per cent of the
chool systems required the basic Red Cross First

9.--States and school systems requiring the basic Red Cross First Aid Course for all drivers

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
28.9	85.0	25.0	90.0	37.9	75.0
71.1	15.0	75.0	10.0	62.1	25.0

Due to rounding, the totals may not always equal 100 per cent.

= Yes; N = No; C = Current Practices expressed in t; R = Recommended Practices expressed in per cent.

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Course and 85 per cent of these systems recommended course for their drivers.

Table 10 presents the percentage of responses of e departments of education and randomly selected ol systems to the following item: Does your state chool system require drivers transporting handicapped ents to take the Advanced Red Cross First Aid Course? n 7)

Table 10 reveals that 11.5 per cent of the state rtments of education required drivers to take the ced Red Cross First Aid Course. Of the state rtments responding, 58.8 per cent indicated that would recommend this course.

Twenty-one and four-tenths per cent of the large l systems required the Advanced Red Cross First Aid e, while 80 per cent of these large systems recom- d that it be taken.

Fifteen and four-tenths per cent of the small l systems required drivers to take the advanced e and 77.8 per cent recommended it.

Table 11 presents the percentage of responses ate departments of education and randomly selected systems to the following item: Does your state hool system require all drivers to take the National Council's Driver Improvement or Defensive Driving ? (Item 8)

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10.--State and school systems requiring drivers orting handicapped students to take the Advanced Red Cross First Aid Course

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
11.5	58.8	21.4	80.0	15.4	77.8
88.5	41.2	78.6	20.0	84.6	22.2

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

TABLE
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ll.--States and school systems requiring drivers to he National Safety Council's Defensive Driving Course

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
5.4	80.8	21.9	95.8	28.6	58.8
94.6	19.2	78.1	4.2	71.4	41.2

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

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Table 11 reveals that currently, 5.4 per cent
e state departments of education required all
rs to take the National Safety Council's Defensive
ng Course, while 80.8 per cent of the state depart-
endorsed this program for all drivers.

Twenty-one and nine-tenths per cent of the large
systems required all drivers to take the course,
.8 per cent of them recommended it.

Of the small school systems responding, 28.6 per
required the Defensive Driving Course for all
s, and 58.8 per cent of the small systems have
ended it.

Table 12 presents the percentage of responses of
departments of education and randomly selected
systems to the following item: Does your state
ool system have an administrative guide (manual)
vide the driver with the basic knowledge of pupil
ortation? (Item 9)

Table 12 shows that 78.9 per cent of the state
nents of education had an administrative guide to
bus drivers with the basic knowledge of pupil
rtation. All of the state departments recommended
actice.

Fifty-nine and four-tenths per cent of the large
systems had an administrative guide, and 88 per
these systems recommended such a guide for all
. One large system did not respond.

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12.--States and school systems having an administra-
guide (manual) to provide the driver with the basic
knowledge of pupil transportation

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
78.9	100.0	59.4*	88.2*	71.4	75.0
21.1		40.6	11.8	28.6	75.0

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
nt; R = Recommended Practices expressed in per cent.

* Items not completed by respondents.

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Of the small school systems reporting, 71.4 per
had a guide and three-fourths of them recommended it.

Table 13 presents the percentage of responses
ate departments of education and randomly selected
l systems to the following item: Does the guide
a unit or section pertaining to the handicapped
nt? (Item 10)

Table 13 indicates that 27.3 per cent of the
departments of education had an administrative
including a section pertaining to the handicapped
nt. The inclusion of such a section was recommended
.9 per cent of the state departments.

Nineteen per cent of the large school systems
section within the guide pertaining to the handi-
d student, and 73.3 per cent recommended that it be
ded.

Of the small school systems responding, 8.7 per
stated that their guide had a section pertaining to
ndicapped student and 93.7 per cent recommended
ractice.

Table 14 presents the percentage of responses of
departments of education and randomly selected
systems to the following item: Does your state
ool system permit the transporting of handicapped
ts by regular school buses?--Are there any problems
students on buses? (Items 11, 11b)

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LE 13.--States and school systems having a guide that includes a unit pertaining to handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
27.3	92.9	19.1	73.3	8.7	93.8
72.7	7.1	80.9	26.7	91.3	6.2

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in cent; R = Recommended Practices expressed in per cent.

TABLE

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LE 14.--States and school systems permitting handicapped students to be transported by regular school bus

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
94.7	100.0	71.9	82.4	85.7	83.3
5.3		28.1	17.6	14.3	16.7
20.8	33.3	18.7	100.0	11.8	100.0
79.2	66.7	81.2		88.2	

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in cent; R = Recommended Practices expressed in per cent.

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Table 14 reveals that 94.7 per cent of the state artments of education permitted the transporting of dicapped students by regular school buses. Seventy- e and two-tenths per cent of the state departments icated no problems in mixing students on buses. All he state departments recommended transporting handi- ped students by regular school buses.

Seventy-one and nine-tenths per cent of the e school systems permitted handicapped students to ransported by regular school buses, while 81.2 per of the large systems indicated having problems ng the students. All of the large school systems mmended it.

Of the small school systems responding, 85.7 per permitted handicapped students to be transported by lar school buses, and 88.2 per cent of these systems cated that there were no problems in mixing students. oximately 83 per cent of the small systems recom- ed transporting handicapped students by regular ol buses.

The open-ended portion of this item provided an tunity for respondents to contribute additional It was compiled as follows:

Three state departments of education indicated mixing students created some problems. One pointed hat the decision to mix or not to mix students

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epended upon the extent of handicaps. Another stated hat severely retarded pupils often are subjected to buse by other students who rode the same bus. The hird state department indicated that there were problems f control and the need for rendering proper assistance o handicapped students.

Four large school systems indicated that there as a tendency for handicapped students to be teased by ther students and that fights took place on the regular chool buses operating without aids or monitors.

The following were cited by four small school stems: abuse by other students when there was a lack direct supervision, student conflicts, and discipline oblems agitated by other students.

Three members of the advisory group recommended xing students when possible, while another member dicated that in his situation, students were mixed on request of a child study team.

The following four items were only included in e questionnaire sent to the state departments of edu- ion. These items provided the licensing procedures school bus operators. Table 15 presents the per- tage of responses of state departments of education the following item: Does your state cooperate with state licensing agency to establish school bus rator qualifications? (Item 15)

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E 15.--Information reported by state departments of education and selected school systems

s #15, 16, 17, 17b, and 18 only pertain to State partments of Education.

e departments of education cooperating with the State nsing Agency to establish school bus operator qualifi- ons.

	C	R
Y	88.9	100.0
N	11.1	

Licensing Agency requires the applicant to pass, in ion to the regular written test, supplemental ques- dealing with information required to properly te a school vehicle.

	C	R
Y	75.7	100.0
N	24.3	

s requiring on-the-road tests for a license to te school vehicles.
s administering the test in the bus the driver will or one of equivalent size.

	C	R
Y	78.9	100.0
N	21.1	
Y	90.3	100.0
N	9.7	

providing certification to all drivers who have sfully completed all courses of instruction to meet andards set by the State Department of Education.

	C	R
Y	69.4	92.3
N	30.6	7.7

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

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Table 15 shows that 90 per cent of state depart-
s of education cooperated with state licensing agencies
stablish school bus operator qualifications. All of
state departments of education recommended this
ice.

Does the state licensing agency require the
cant to pass, in addition to the regular written
supplemental questions dealing with information
red to properly operate a school vehicle? (Item 16)

The data reveal that 75.7 per cent of the state
tments of education required the applicant to pass
upplemental section dealing with vehicle operation,
ll as the regular written test. All state depart-
of education recommended this practice.

Does your state require on-road tests for a
se to operate school vehicles? If yes, is the test
in the bus the driver will use or one of equivalent
(Item 17)

The data reveal that 78.9 per cent of the state
ments of education required all drivers to take an
-road test who wish to be licensed to operate a
bus. The test was given in a vehicle similar to,
of equivalent size to the one they will be
ed to drive.

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Does your state provide certification to all rivers who have successfully completed all courses of nstruction and met the standards set by the state epartment of education? (Item 18)

Data in Table 15 reveal that 69.4 per cent of e state departments of education required all drivers successfully complete a course of instruction before ing certified. Ninety per cent indicated this as a commended practice.

Selection of Drivers

Table 16 presents the percentage of responses of ate departments of education and randomly selected hool systems to the following item: Do all new applits complete an application form when applying for loyment? (Item 19)

Table 16 shows that 64.5 per cent of the state artments of education had all new applicants complete application form when applying for employment. Ninety-ee and seven-tenths per cent of the state departments education recommended this practice.

Of the large school systems responding, 84.4 per indicated this requirement for all new applicants. school systems supported this as a recommendation.

Ninety-three and one-tenth per cent of the small ol systems had all new applicants complete an

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LE 16.--New applicants completing an application form when applying for employment

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
64.5	93.7	84.4	100.0	93.1	100.0
35.5	6.3	15.6		6.9	

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = N!; C = Current Practices expressed in cent; R = Recommended Practices expressed in per cent.

application form and in addition the procedure was recommended by all small systems responding.

Table 17 presents the percentage of responses of state departments of education and randomly selected school systems to the following item: Does your state or school system require the following information in addition to the basic application? (Item 20) The following information includes a personal application, a check of the applicant's driving record, and a fingerprint check.

a) Personal Application

Data in Table 17 reveal that 51.9 per cent of the state departments of education did not require personal data of the applicant. Ninety-two per cent of the state departments of education required the above information in addition to the basic application and considered that this item should be a recommended practice.

Of the large school systems responding, 90 per cent required this information, and all recommended it.

All small school systems had this information in addition to the basic application.

b) A Check of the Applicant's Driving Record

The data in Table 17 indicate that 44.8 per cent of the state departments of education checked the driving record of the applicant and 94.4 per cent of the state departments of education recommended this practice.

TABLE 17.--States and school systems requiring a personal application, driving record check, and fingerprint check in addition to the basic application

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
a) Personal Application						
Y	48.1	92.3	90.0	100.0	100.0	91.7
N	51.9	7.7	10.0			8.3
b) Driving Record Check						
Y	44.8	94.4	83.9	100.0	81.5	92.9
N	55.2	5.6	16.1		18.5	7.1
c) Fingerprint Check						
Y	45.2	94.1	18.7	27.8	32.0	56.2
N	54.8	5.9	81.2	72.2	68.0	43.7

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

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Eighty-three and nine-tenths per cent of the arge school systems indicated that this was a current ractice and they all recommended that such a check be ade.

Of the small school systems responding, 81.5 per ent indicated a check was made of the applicant's riving record and 92.9 per cent recommended this as a eneral procedure.

c) Fingerprint Check

Data in Table 17 reveal that 45.2 per cent of he state departments of education checked fingerprints. inety-four and one-tenth per cent recommended the check- g of fingerprints in addition to the basic application r all new driver candidates.

The data also show that 18.7 per cent of the rge school systems checked fingerprints. Twenty-seven d eight-tenths per cent of the large school systems ggested a fingerprint check as a recommended practice r all new applicants.

Thirty-two per cent of the small school systems dicated the fingerprint check as a current practice d 56.2 per cent recommended this check in addition the basic application.

d) Other

The open-ended portion of this item provided an ortunity for respondents to contribute additional data. was compiled as follows:

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Two state departments of education required the
wing information in addition to the basic application.
ndicated checking police records and another called
ecommendations by school principals when the driver
student.

Four large school systems checked police records
in another large system the bus driver had to have
er's permit.

Data reveal that four small school systems
d police records while another called for a char-
reference.

One advisory group member felt that a personal
with past employers should be required as part
basic application.

Table 18 presents the percentage of responses of
departments of education and randomly selected
systems to the following item: Is each school
ver required to pass a medical examination before
mployed to transport handicapped students?
1)

Table 18 shows that 97.1 per cent of the state
ents of education required each applicant to pass
al examination before being employed and all of
te departments recommended this practice.

Of the large school systems, 93.5 per cent
ed that the applicant is required to pass a

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18.--States and school systems requiring each school river applicant to pass a medical examination before being employed to transport handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
97.1	100.0	93.5	100.0	85.7	72.7
2.9		6.5		14.3	27.3

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

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ical examination prior to employment. All large
ool systems recommended this practice.

Eighty-five and seven-tenths per cent of the
ll school systems carried out this practice, and
7 per cent of these systems recommended this as
eral practice.

Table 19 presents the percentage of responses
tate departments of education and randomly selected
ol systems to the following item: Does your state
chool system require each school bus driver applicant
ass a visual examination before being employed to
sport handicapped students? (Item 22)

All state departments of education required each
ol bus driver to pass a visual examination. They
mended this practice for each school bus driver.

Ninety per cent of the large school systems
ated this as a standard procedure and all stated
would recommend that each school bus driver be
red to pass a visual examination prior to employ-

Currently, 89.3 per cent of the small school
ms follow this practice, and recommended the
ice prior to employment.

Table 20 presents the percentage of responses
ate departments of education and randomly selected
systems to the following item: May the visual

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19.--States and school systems requiring each school river applicant to pass a visual examination before being employed to transport handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
100.0	100.0	90.0	100.0	89.3	81.8
-	-	10.0	-	10.7	18.2

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

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20.--States and school systems having visual examinations performed by either a licensed physician or a licensed optometrist

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
97.1	100.0	88.9	94.4	92.0	88.9
2.9		11.1	5.6	8.0	11.1

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in ent; R = Recommended Practices expressed in per cent.

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nination in your state or school system be performed either a licensed physician or a licensed optometrist? em 23)

Table 20 indicates that 97 per cent of the state rtments of education stated that visual examinations be performed by either a licensed physician or a nsed optometrist. All of the state departments of ation recommended this practice.

Table 20 further reveals that 88.9 per cent of large school systems had either licensed physicians icensed optometrists to perform visual examinations 94.4 per cent of the large systems indicated this recommendation.

The figures in the table also reveal that 92 per of the small school systems had visual examinations ther a licensed physician or a licensed optometrist n addition the data show that 88.9 per cent of the school systems recommended this practice.

Table 21 presents the percentage of responses of departments of education and randomly selected systems to the following item: Does your state hool system require a tuberculosis test? (Item 24)

The data presented in this table show that er cent of the state departments of education ed tuberculosis tests. The data further indicated ll state departments felt this item was important to recommend it.

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21.--States and school systems requiring a tuberculosis test

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
94.3 5.7	100.0	93.7 6.2	94.1 5.9	89.3 10.7	100.0

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

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Ninety-three per cent of the large school systems icated that this was a current practice and 94.1 per t of the school systems recommended the test.

Of the small school systems 89.3 per cent uired the tuberculosis test. All school systems ommended it.

Additional data provided by respondents through open-ended portion of this item are presented below:

y or Tuberculin Test

Five state departments of education required the rculin Test, two state departments the X-Ray exami- on, and two other state departments have the option ither test for all school bus drivers.

Eight large school systems required the Tuber- n Test. Two large systems administered X-Ray exami- ons and two other large systems required the Man- Test.

Six small school systems required the Tuberculin four small systems the X-Ray examination while er administered either test every year.

Table 22 presents the percentage of responses of departments of education and randomly selected l systems to the following item: Does your state hool system require all medical examinations to be rmed by licensed physicians? (Item 25)

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22.--States and school systems requiring medical aminations to be performed by licensed physicians

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
97.	100.0	90.6	94.7	96.	100.0
2.9		9.4	5.3	3.6	

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

Data in Table 22 reveal that 97.1 per cent of
e state departments of education required all medical
minations to be performed by licensed physicians.
state departments recommended this practice.

Of the large school systems, 90.6 per cent
uired this procedure for all medical examinations
94.7 per cent recommended it.

Ninety-six per cent of the small school systems
uired all medical examinations to be performed by
ensed physicians and all recommended the procedure.

Table 23 presents the percentage of responses of
te departments of education and randomly selected
ool systems to the following item: Does the medical
used require the physician to certify that the
er is medically qualified to transport students?
es, are the medical requirements different for
ers transporting handicapped students? (Item 26,

Table 23 indicates that 89.2 per cent of the
e departments of education required that a physician
certify that a driver is medically qualified to
sport students. Approximately 92 per cent recom-
ed this requirement for all their drivers.

Table 23 also reveals that 3.4 per cent of the
e departments of education reported that the medical
irements were different for those drivers transporting

TABL

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23.--Forms required by states and school systems showing that drivers are medically qualified

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
89.2	92.3	71.4	94.4	77.8	91.7
10.8	7.7	28.6	5.6	22.2	8.3
3.4	11.1	4.3	20.00	0.0	8.3
96.6	88.9	95.7	80.00	100.0	91.7

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

*Medical requirements different for drivers of the apped.

ndicapped students. Slightly more than 11 per cent
commended that medical requirements should be dif-
rent for drivers transporting handicapped students.

Seventy-one and four-tenths per cent of the
rge school systems have a medical form requiring the
ysician to certify that the driver is medically
alified. Table 23 indicates that 94.4 per cent of
e large school systems carry on this practice.

Less than 4 per cent of the large school systems
licated that medical requirements are different for
vers transporting handicapped students and 20 per
t recommended that the requirements should not be
same.

The figures in the table further reveal that
8 per cent of the small school systems required the
sician to certify on the medical form that the driver
medically qualified and 91.7 per cent of the small
ool systems indicated this as a recommendation. All
he small school systems stated that medical require-
s were no different from the requirements for
ers transporting regular students to and from school.

Additional data provided by respondents through
open-ended portion of this item were compiled and
presented below.

Who is expected to defray the cost of the driver
icant medical examination? (Item 27)

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Twenty state departments of education indicated at the local school systems defrayed the cost of the iver's medical examination and eight state departments ported this fee paid by the applicant. Seven state partments revealed that the State paid the cost.

Six large school systems reported that the local hool systems defrayed the cost of the driver applicant's ical examination while ten large systems indicated the was paid by the applicant. Two large school systems orted that the private contractor paid the cost of driver applicant's medical examination.

Four small school systems indicated that they rayed the cost of the driver applicant's medical mination and seven small systems reported this ense was assumed by the applicant. Three small sys- revealed that the private contractor paid for the driver's medical examination.

Five members of the advisory group recommended the medical examination be paid for by the indi- al school systems.

Table 24 presents the percentage of responses of e departments of education and randomly selected ol systems to the following item: After the initial cal and visual examination, how often does the driver t for re-examination? (Item 28) The following de suggested driver scheduling for physical and l re-examinations.

... bus driver medical and visual re-examinations

State Departments of Education		Large School Systems		Small School Systems	
No. of Above	Re-examination	No. of Above	Re-examination	No. of Above	Re-examination
		Physical Re-Examination			
1	None	26	Once yearly	23	Once yearly
28	Once yearly	2	Every 2 years	2	Every 2 years
4	Every 2 years	2	Every 3 years	4	No response
1	Every 3 years	3	No response		
4	No response				
		Visual Re-Examination			
1	None	21	Once yearly	19	Once yearly
22	Once yearly	2	Every 2 years	2	Every 2 years
4	Every 2 years	3	Every 3 years	8	No response
2	Every 3 years	7	No response		
1	Every 4 years				
8	No response				

a) Physical Re-examination

The data, as shown in Table 24, indicate that enty-eight state departments of education required dical re-examinations every year, four had re-exami- tions every two years, and one every three years. r state departments did not respond.

Of the large school systems, twenty-six reported examinations each year, two required re-examination ry three years, and three of the large systems did respond to this question.

Twenty-three small school systems stated that ical re-examinations were given every year following initial examination. Two small school systems re- nined drivers every two years. There was no response four small school systems.

b) Visual Re-examination

Twenty-two state departments of education had al re-examinations every year, four had re-exami- ons every three years, and another had the re- ination every four years. Eight state departments ducation did not respond.

Of the large school systems twenty-one reported al re-examinations each year, two indicated this tice every two years, and three school systems pro- re-examinations every three years. Seven school ms did not respond.

Nineteen small school systems employed visual re-
xaminations every year following the initial visual
xamination, two small systems re-examined drivers
very two years, while there was no response from eight
ystems.

Table 25 presents the percentage of responses
f state departments of education and randomly selected
chool systems to the following item: What are the
inimum and maximum age limits for drivers transporting
ndicapped students? (Item 29)

Minimum Age for Drivers Transporting Handicapped Students

Table 25 indicates that six state departments
education had a minimum age of sixteen years for
ivers transporting handicapped students. In three
ates the minimum age was seventeen, twelve states
ghteen, one state twenty, and in thirteen states the
nimum age was twenty-one.

Three state departments of education did not
spond to this question.

Data reported by eleven large school systems
dicate that the minimum age level was eighteen years.
sixteen large school systems the minimum age was
nty-one and in two others nineteen. One large sys-
stated seventeen years of age as a minimum and two

ABLE 25.--Age limits for drivers transporting handicapped students

Minimum Age		Maximum Age	
. of States Reporting	Age	No. of States Reporting	Age
	State Departments of Education		
6	16	10	None
3	17	1	60
12	18	15	65
1	20	1	68
13	21	3	70
. of School Systems Reporting	Age	No. of School Systems Reporting	Age
	Large School Systems		
1	17	2	None
11	18	1	45
2	19	1	55
16	21	2	60
1	25	21	65
1	30	1	68
1	No response	4	70
		1	No response
	Small School Systems		
1	17	2	None
9	18	2	55
15	21	1	59
1	23	3	60
1	25	16	65
2	No response	2	70
		1	72
		2	No response

ner school systems had twenty-five and thirty as
nimum age requirements. One large school system failed
respond.

In fifteen of the small school systems the minimum
e was twenty-one and nine other school systems reported
ghteen years of age. One school system indicated
enty-three years of age and in another twenty-five
s the minimum age. Two small school systems did not
spond.

Maximum Age Limits for Drivers Transporting Handicapped Students

The data in Table 25 indicate that ten state
partments of education had no maximum age limit,
fteen states set a maximum age of sixty-five, one
ate supported sixty-eight, and three other states had
pted the maximum of seventy years of age.

Twenty-one of the large school systems stated
t sixty-five was the maximum age, four stated seventy,
le two others reported no maximum age limit.

Two small school systems had no maximum age limit.
others ranged from two systems having a maximum age
t of fifty-five to one school system reporting
nty-two years of age as a maximum. Sixteen of the
er systems had no drivers transporting handicapped
nts beyond the age of sixty-five. Two small school
ms did not respond to this item.

Table 26 presents the percentage of responses f state departments of education and randomly selected chool systems to the following item: Would you suggest change in the age limits? (Item 30)

Table 26 shows that 37 per cent of the state epartments of education recommended a change in the urrent age limits established for school bus drivers. hree and seven-tenths per cent of the large and small chool systems saw no reason why they should recommend hy change.

Additional data provided by respondents through he open-ended portion of this item are presented below.

Why and What Change in Age Limits

Two state departments of education indicated hat the maximum age should be seventy while another pported a maximum age of sixty because of the possible terioration in reflexes beyond this age.

One large school system stated that there should t be a maximum age limit, while two others supported haximum age of sixty-five because of safety reasons.

Only one small school system indicated that a nge be made from the present eighteen years to twenty- years of age.

Three advisory group members recommended a maxi- age of sixty-five, while another recommended a review driver's record at age fifty-five, sixty, and sixty-

TABLE 26.--States and school systems recommending a change in the age limits for school bus drivers

	Respondents					
	State Department of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
Y	37.1		3.6		3.7	
N	62.9		96.4		96.3	

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

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Instructional Programs

This section indicates the type of preparation and training that drivers transporting handicapped students received. The number of hours of classroom and behind-the-wheel instruction were also submitted by respondents in this section.

Table 27 presents the percentage of responses of state departments of education and randomly selected school systems to the following item: Does your state or school system use qualified instructors to prepare drivers transporting students to and from school? (Item 31)

Table 27 reveals that 68.7 per cent of the state departments of education used qualified instructors to prepare drivers transporting students to and from school. All state departments of education recommended this practice.

Sixty-two and five-tenths per cent of the large school systems reported the use of qualified instructors and 84.2 per cent recommended that qualified instructors each all drivers.

Of the small school systems responding, 62.9 per ent used qualified instructors and 69.2 per cent indited this as a recommendation.

Table 28 presents the percentage of responses of ate departments of education and randomly selected ool systems to the following item: Who is responsible

ABLE 27.--States and school systems using qualified
astructors to prepare drivers transporting handicapped
students

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
	68.7	100.0	62.5	84.2	62.9	69.2
	31.2		37.5	15.8	37.0	30.8

y: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
r cent; R = Recommended Practices expressed in per cent.

TABLE 28.--States and school systems having responsibilities for the preparation and training of drivers transporting handicapped students

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
a) State Department of Education						
Y	77.3	100.0	43.7	68.7	50.0	57.1
N	22.7		56.2	31.2	50.0	42.9
b) Local School Systems						
Y	88.9	93.3	92.0	92.9	90.5	100.0
N	11.1	6.7	8.0	7.1	9.5	

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

for the preparation and training of drivers transporting handicapped students? (Item 33) The following indicates how responsibility for the preparation and training of drivers is apportioned.

a) State Departments of Education

The data shown in Table 28 indicate that 77.3 per cent of the state departments of education reported the preparation and training of drivers as the responsibility of the state, and 100 per cent recommended this as a state responsibility.

The data show that 43.7 per cent of the large school systems reported the state department of education as responsible for preparing and training drivers. Sixty-nine per cent of the large school systems recommended that this practice be the responsibility of the state department of education.

Table 28 indicates that 50 per cent of the small school systems reported that state departments of education are responsible for the preparation and training of drivers. Fifty-seven per cent recommended this practice.

b) Local School Systems

Eighty-nine and nine-tenths per cent of the state departments of education indicated that this was the responsibility of the local school system. Ninety-three and three-tenths per cent recommended that the local

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system be responsible for this preparation and
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Ninety-two per cent of the large school systems
that the local school system should assume the
sibility for the preparation and training of
s. Ninety-two and nine-tenths per cent of these
ystems reported that the preparation and training
vers were a local responsibility.

Ninety and five-tenths per cent of the small
systems revealed that this was the responsibility
local school system. One hundred per cent recom-
that local school systems be responsible for the
ation and training of drivers transporting handi-
students.

Other

Additional data provided by respondents through
en-ended portion of this item are presented below.

Three state departments of education reported
e department of motor vehicles and/or the depart-
transportation were responsible for the prepar-
nd training of drivers transporting handicapped
s in their state.

Four large school systems indicated that state
departments, private bus contractors, the depart-
motor vehicles, and the state department of
instruction were responsible for the preparation
ining of drivers.

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Four small school systems reported that private ntractors were responsible, while the state police ther state was responsible for the preparation and ng of drivers transporting handicapped students. ard of Continuing Education Services and the trans- ion supervisors in two states were responsible for eparation and training of drivers.

Three advisory group members recommended that cal school systems be responsible for the prepar- and training of drivers transporting handicapped ts. Another group member recommended that responsi- should be assumed by the intermediate school dis-

Table 29 presents the percentage of responses te departments of education and randomly selected systems to the following item: Does your state ool system require the preparation of drivers orting handicapped students in the following (Item 33) These areas include classroom and -bus road instruction as well as an understanding handicapped child and the attendant problems.

Classroom Instruction

Table 29 indicates that 53.1 per cent of the epartments of education required classroom tion and all state departments recommended it.

TABLE 29.--Areas of preparation required by states and school systems for drivers transporting handicapped students

	Respondents	
	State	

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
a) Classroom Instruction						
Y	53.1	100.0	40.0	78.9	59.3	66.7
N	46.9		60.0	21.1	40.7	33.3
b) In-the-Bus Road Instruction						
Y	45.2	100.0	65.5	88.9	77.8	75.0
N	54.8		34.5	11.1	22.2	25.0
c) Understanding Problems of Handicapped Students						
Y	26.7	100.0	51.7	100.0	50.0	71.4
N	73.3		48.3		50.0	28.6

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

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Large school systems required classroom instruction
per cent of the districts. Seventy-eight and nine-
per cent of the large school systems recommended

Data indicate that 59.3 per cent of the small
systems required classroom instruction and 66.7 per
ecommended it.

In-the-Bus Road Instruction

Table 29 reveals that 45.2 per cent of the state
ients of education required in-the-bus road
ction for drivers transporting handicapped stu-
nd all departments recommended this.

Of the large school systems 65.5 per cent
d it as a current practice and 89 per cent were
that in-the-bus road instruction was necessary.

Data indicate that 77.8 per cent of the small
systems had in-the-bus road instruction, and
ourths of the small systems recommended this
e.

Understanding Problems that Handicapped Students
Meet Each Day

Twenty-six and seven-tenths per cent of the
epartments of education stipulated that their
have an understanding of the problems that handi-
students meet each day. One hundred per cent of
e departments recommended this practice.

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Slightly more than half of the large school sys- required drivers to have an understanding of the lems that handicapped students are likely to meet day. All large school systems recommended that ers have this understanding.

One-half of the small school systems required ers to have an understanding of the problems that icapped students might meet each day. Seventy-one cent of the small school systems recommended such ruction.

Additional data provided by respondents through open-ended portion of this item are presented below.

One state department of education indicated that instruction should be required for all school bus . Another indicated that all first-year drivers be ired to complete a bus driver course approved by Department of Education.

One large school system recommended training ers in the use of liftgates, ramps, elevators, and special equipment used for transporting handicapped ents. Two other states recommended that the driver ect the vehicle and carry out minor maintenance s to alleviate future safety problems.

One small school system recommended that an aid the bus to assist the driver while in another small m all drivers listened to a talk by the district ologist.

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Two advisory group members recommended instruction all school bus aids, while another recommended truction on all special equipment used for trans- ting the handicapped.

Table 30 presents the percentage of responses state departments of education and randomly selected ool systems to the following item: Are the following as included in the classroom phase of instruction? em 34) The following areas include driving and natural s, operating procedures, use of special equipment, ding and unloading handicapped students, emergency cedures, and accident reporting procedures.

a) Driving Laws and Regulations

Table 30 indicates that 84.8 per cent of the e departments of education included the laws and ılations as part of the classroom instruction. All e departments recommended them.

Eighty per cent of the large school systems uded driving laws and regulations as part of the sroom instruction, and 92.9 per cent recommended practice.

Data indicate that 87.5 per cent of the small ol systems included driving laws and regulations as of the classroom phase of instruction. Seventy- n and eight-tenths per cent recommended this practice.

TABLE 30.--Subject areas included in the classroom phase of instruction

	Respondents		
	State	Large School	Small School

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
a) Driving Laws and Regulations						
Y	84.8	100.0	80.0	92.9	87.5	77.8
N	15.2		20.0	7.1	12.5	22.2
b) School Vehicle Operating Procedures						
Y	84.8	100.0	80.8	92.9	91.7	88.9
N	15.2		19.2	7.1	8.3	11.1
c) Natural Laws and Their Effects						
Y	75.0	100.0	75.0	92.3	75.0	90.9
N	25.0		25.0	7.7	25.0	9.1
d) Use of Special Equipment for Handicapped Students						
Y	41.9	95.2	44.0	91.7	54.2	92.9
N	58.1	4.8	56.0	8.3	45.8	7.1
e) Loading and Unloading Handicapped Students						
Y	48.5	100.0	57.7	92.3	62.5	85.7
N	51.5		42.3	7.7	37.5	14.3

TABLE 30.--Continued

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
f) Emergency Procedures for All Students						
Y	81.8	100.0	80.8	91.7	91.7	90.0
N	18.2		19.2	8.3	8.3	10.0
g) Completion of Reports, Including Accident Reporting						
Y	81.8	100.0	76.0	92.3	91.7	90.0
N	18.2		24.0	7.7	8.3	10.0

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

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b) School Vehicle Operating Procedures

Eighty-five per cent of the state departments of cation reported that school vehicle operating pro- ures were taught as a current practice, while all the state departments recommended it.

Of the large school systems, 80.8 per cent included ool vehicle operating procedures as part of the class- phase of instruction and 93 per cent of these sys- recommended such instruction.

Table 30 shows that 91.7 per cent of the small ol systems included vehicle operating procedures as of the classroom phase of instruction, and 88.9 per of these same systems recommended this instruction.

c) Natural Laws and Their Effects on Control

Data from Table 30 reveal that three-fourths of state departments of education included the natural and their effects on vehicle control in the class- phase of instruction, while all state departments mmended this instruction.

Of the large school systems three-fourths stated ruction in this subject as a current practice. y-two and three-tenths per cent recommended natural and their effects on vehicle control as a phase of classroom instruction.

Three-fourths of the small school systems included al laws and their effects in the classroom phase

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nstruction, and 90.9 per cent recommended that
be taught.

d) Use of Special Equipment for the Handicapped Student

Forty-one and nine-tenths per cent of the state
rtments of education included instruction in the
of special equipment for the handicapped in the
sroom phase of instruction. Ninety-five per cent
he state departments recommended this practice.

Forty-four per cent of the large school systems
ded this type of instruction, and 92 per cent indi-
that this should be a continuing practice.

Data also show that 54.2 per cent of the small
l systems included instruction in the use of this
al equipment and 92 per cent recommended drivers
g such instruction.

) Loading and Unloading Handicapped Students

Table 30 indicates that 48.5 per cent of the
departments of education have a unit which included
oading and unloading of handicapped students. All
tate departments recommended this unit.

Approximately 58 per cent of the large school
ns devoted a portion of the classroom phase to
instruction and 92.3 per cent of the large school
ns recommended such practice.

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Data indicate that 62.5 per cent of the small
ems taught how to load and unload handicapped stu-
s as part of the classroom instruction. Eighty-six
cent of the small school systems recommended it.

f) Emergency Procedures for All Students

Table 30 shows that 81.8 per cent of the state
rtments of education included knowledge of emergency
edures as part of the classroom instruction. One
red per cent of the state departments recommended
instruction.

Eighty and eight-tenths per cent of the large
l systems had a unit on emergency procedures during
lassroom phase of instruction, and 92 per cent
mended it.

Table 30 further indicates that 91.7 per cent
e small school systems included emergency procedures
rt of the classroom instruction, and 90 per cent
e small school systems recommended such instruction.

) Completion of Reports, Including Accident
Reporting Procedures

In so far as state departments of education were
rned, 81.8 per cent stated that they included pro-
es of accident reporting as a unit in the classroom
of instruction. One hundred per cent of the state
tments of education recommended it.

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Table 30 reveals that 76 per cent of the large systems included a unit on how to report accidents mplete reports. Slightly more than 92 per cent of rge school systems recommended this practice.

Approximately 92 per cent of the small school s included a unit on procedures of accident report- Ninety per cent of the small school systems recom- they be taught.

Table 31 presents the percentage of responses of departments of education and randomly selected systems to the following item: How many hours ssroom instruction does your state or school sys- quire for school bus drivers? (Item 35)

Six state departments of education required no oom instruction for school bus drivers. One state ed five hours and another eight hours. Seventeen epartments of education required nine or more Thirteen state departments of education did not to this question.

Table 31 shows that six large school systems d no classroom instruction. Three large school required one, two, and six hours of classroom tion for bus drivers. Eight hours of classroom tion were required by four large systems, while arge school systems did not respond.

TABLE 31.--Number of hours of classroom instruction that states and school systems required for bus drivers

Required for bus drivers

State Departments of Education		Large School Systems		Small School Systems	
No. of Above	No. of Hours	No. of Above	No. of Hours	No. of Above	No. of Hours
6	None	6	None	3	None
1	5	1	1	1	1
1	8	1	2	1	2
17	9 or more	1	6	2	3
13	No response	4	8	1	4
		13	9	1	6
		7	No response	11	9 or more
				9	No response

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Data presented in Table 31 further indicates that e small school systems required no classroom instruc- Four school systems required one, two, four, and ours of instruction, two systems required three , and eleven required nine or more hours. Nine systems did not respond.

Table 32 presents the percentage of responses ate departments of education and randomly selected l systems to the following item: Does your state or l system require additional classroom instruction rivers transporting handicapped students? (Item 36)

The data in Table 32 indicate that 2.7 per cent e state departments of education required additional room instruction, while 86.9 per cent of the state tments recommend this practice.

Of the large school systems responding, 3.4 per indicated additional classroom instruction as a rement and 88.9 per cent recommended additional room instruction.

No small school systems required drivers to additional classroom instruction, however, 60 per of the small school systems recommended this ce.

Table 33 presents the percentage of responses of departments of education and randomly selected systems to the following item: How many hours

TABLE 32.
classroom

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Key: Due
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32.--States and school systems requiring additional oom instruction for drivers transporting handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
2.7	86.9	3.4	88.9	0.0	60.0
97.3	13.1	96.6	11.1	100.0	40.0

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in nt; R = Recommended Practices expressed in per cent.

TABLE 33.--Number of hours of classroom instruction devoted to

TABLE 33.--Number of hours of classroom instruction devoted to transporting handicapped students

State Departments of Education		Large School Systems		Small School Systems	
No. of Above	No. of Hours	No. of Above	No. of Hours	No. of Above	No. of Hours
8	None	8	None	4	None
1	1	1	1	2	1
2	2	1	3	3	2
3	4	1	4	1	3
1	5	1	5	1	4
1	6	1	6	1	10
1	10	1	10	17	No response
21	No response	19	No response		

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in this instruction are devoted to transporting
icapped students? (classroom) (Item 37)

Eight state departments of education offered
lassroom instruction. Three state departments
ted one, five, and six classroom hours. Two states
red two hours, and three, four hours. Another state
rtment offered nine hours of instruction while twenty-
state departments of education did not respond.

Table 33 reveals that eight large school systems
ot offer any classroom instruction. Five systems
ed one, three, four, five, and six hours of addi-
l classroom instruction and another reported teach-
ine hours of classroom instruction. Nineteen large
l systems did not respond to this question.

Table 33 indicates that four small school systems
ed no additional classroom instruction. Two small
l systems offered one hour, three offered two hours,
wo others included three and four hours, respec-
, of additional classroom instruction. Twelve
of classroom instruction were taught by one small
system. More than half the schools in this cate-
id not respond.

Table 34 presents the percentage of responses
te departments of education and randomly selected
systems to the following item: Are the following
included in the behind-the-wheel (bus) phase of

	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
a) Basic School Bus Operating Procedures						
Y	71.9	100.0	92.9	93.3	92.6	100.0
N	28.1		7.1	6.7	7.4	
b) Driving Conditions the Driver Will Encounter (Rural, Mountain)						
Y	71.9	100.0	92.9	93.3	88.9	100.0
N	28.1		7.1	6.7	11.1	
c) Loading and Unloading With Use of Equipment to Aid Handicapped						
Y	38.7	100.0	55.6	94.1	55.6	100.0
N	61.3		44.4	5.9	44.4	
d) Emergency Procedures						
Y	74.2	100.0	88.5	93.8	92.6	100.0
N	25.8		11.5	6.2	7.4	

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

truction? (Item 38) The following includes bus
rating procedures, driving conditions, use of equip-
t to aid the handicapped, and emergency procedures.

a) Basic School Bus Operating Procedures

Table 34 indicates that 91.9 per cent of the
e departments of education included operating pro-
ures in the behind-the-wheel phase of instruction.
state departments reported this as a recommended
tice.

Of the large school systems responding, 92.9 per
revealed that operating procedures were included in
behind-the-wheel phase of instruction. Ninety-three
three-tenths per cent of the large school systems
idered this a recommended practice.

The data show that 92.6 per cent of the small
ol systems included this instruction, while all
l school systems recommended it.

b) Driving Conditions the Driver Will Encounter

The data in Table 34 indicate that 71.9 per cent
e state departments of education included conditions
river will encounter as a part of behind-the-wheel
of instruction. All of the state departments
mended this practice.

Table 34 points out that 92.9 per cent of the
school systems included such conditions as part

behind-the-wheel (bus) instruction. Approximately
cent of the large school systems stated this as
mmended practice.

Eighty-eight and nine-tenths per cent of the
school systems indicated the above as current
ce. One hundred per cent of the school systems
ended it.

Loading and Unloading Procedures with Use of Equipment to Aid the Handicapped

Thirty-eight and seven-tenths per cent of the
departments of education included loading and
ing procedures with use of equipment to aid the
apped. All of the state departments recommended
rocedure.

Fifty-five per cent of the large school systems
ted that loading and unloading procedures were
ed in the behind-the-wheel phase of instruction,
94 per cent recommended this practice.

Fifty-five and six-tenths per cent of the small
systems included loading and unloading procedures
art of the behind-the-wheel (bus) phase of
ction. All small school systems were in agreement
should be recommended.

Emergency Procedures

Seventy-four and two-tenths per cent of the
departments of education included instruction in

ency procedures during the behind-the-wheel phase
struction. All recommended this practice.

The data reflect that 88.5 per cent of the large
systems included emergency procedures as part of
ehind-the-wheel instruction. Ninety-four per cent
ended this phase of instruction.

Table 34 shows that 92.6 per cent of the small
systems had this practice and all small school
as recommended it.

Table 35 presents the responses of state depart-
of education and randomly selected school systems
following item: How many hours of in-the-bus road
ction does your state or school system require for
bus drivers? (Item 39)

Nine state departments of education required no
-bus road instruction for school bus drivers. One
required one hour and two offered two hours of
ction. Three states required four hours, three
six hours, one state eight hours, and three states
r more hours of in-the-bus road instruction. There
response from sixteen state departments of edu-

Data in Table 35 indicate that five large school
s did not provide any in-the-bus road instruction
hool bus drivers. Four large systems required two,
six, and eight hours of in-the-bus road instruction.

TABLE 35.--Number of hours of in-the-bus road instruction that states and school systems require for school bus drivers

State Departments of Education		Large School Systems		Small School Systems	
No. of Above	No. of Hours	No. of Above	No. of Hours	No. of Above	No. of Hours
9	None	5	None	4	None
1	1	3	1	1	1
2	2	1	2	3	2
3	4	2	3	1	3
3	6	1	4	2	4
1	8	2	5	3	5
3	9 or more	1	6	2	6
16	No response	1	8	1	8
		7	9 or more	4	9 or more
		10	No response	8	No response

schools required one hour of instruction, two
s five hours of instruction, two schools three
and seven large systems reported nine hours of
ction. Data further revealed that ten large
systems did not respond.

The data presented in this table indicate that
mall school systems required no in-the-bus road
ction. One small system required one hour and
systems two hours of road instruction. Three
systems required five hours, one three hours,
ur hours, and two others required a total of six
of in-the-bus road instruction. The data also
ed that one small school system required eight
and four required nine hours or more of instruction.
small school systems did not respond.

Table 36 presents the percentage of responses
te departments of education and randomly selected
systems to the following item: Does your state
ool system require additional in-the-bus road
ction for drivers transporting handicapped stu-
(Item 40)

Data presented in Table 36 indicate that 2.9 per
the state departments of education required addi-
in-the-bus road instruction, and approximately
cent of the state departments recommended this
e.

36.--States and school systems requiring additional
e-bus road instruction for drivers transporting
handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
2.9	83.3	6.9*	58.8*	10.7	50.0
97.1	16.7	93.1	41.2	89.3	50.0

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
ent; R = Recommended Practices expressed in per cent.

*Item not completed by respondents.

Table 36 shows that 6.9 per cent of the large
ol systems required additional in-the-bus road
ruction for drivers transporting handicapped stu-
s. Fifty-nine per cent of the large school systems
idered this as a recommended practice. One large
em did not respond.

Of the small school systems responding, 10.7 per
required additional hours of in-the-bus road
ruction. One-half of the small school systems
mmended the additional instruction.

Table 37 presents the responses of state depart-
s of education and randomly selected school systems
he following item: How many hours within this
ruction are devoted to transporting handicapped
ents? (In-the-bus) (Item 41)

Nine state departments of education offered no
he-bus road instruction. One state department
ed one hour and another state offered two hours
-the-bus road instruction. Two states offered
hours, while twenty-five state departments of edu-
n did not respond.

Data in Table 37 indicate seven large school
ms offered no in-the-bus road instruction, four
ed one, four, five, and nine hours, while twenty-
arge school systems did not respond.

TABLE 37.--Number of hours of behind-the-wheel instruction devoted to transporting handicapped students

State Departments of Education		Large School Systems		Small School Systems	
No. of Above	No. of Hours	No. of Above	No. of Hours	No. of Above	No. of Hours
9	None	7	None	8	None
1	1	1	1	1	1
1	2	1	4	2	9 or more
2	4	1	5	18	No response
25	No response	1	10		
		22	No response		

Table 37 further reveals that eight small school
ms did not offer any in-the-bus road instruction.
nall school system offered one hour and two systems
ours of in-the-bus road instruction. Eighteen
school systems did not complete this item.

Table 38 presents the percentage of responses of
departments of education and randomly selected
systems to the following item: Does your state
hool system require emergency evacuation drills on
ehicles transporting handicapped students? (Item 42)

The data in Table 38 indicate that 60.6 per cent
state departments of education required emergency
tion drills on all vehicles. Ninety-four and one-
per cent of the state departments recommended this
ce.

Table 38 reveals that 28.1 per cent of the large
s required emergency evacuation drills on all
es, and 81 per cent recommended them.

Fifty-one and nine-tenths per cent of the small
systems required emergency evacuation drills and
cent of the small school systems reported this
s a recommended practice.

Table 39 presents the responses of state depart-
of education and randomly selected school systems
following item: The number of times during the

38.--States and school systems requiring emergency
s on vehicles transporting handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
60.6	94.1	28.1	80.9*	51.9	71.4
39.4	5.9	71.9	19.0	48.1	28.6

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
nt; R = Recommended Practices expressed in per cent.

*Item not completed by respondents.

TABLE 39.--Number of emergency drills conducted yearly on vehicles transporting handicapped students

State Departments of Education		Large School Systems		Small School Systems	
No. of Above	No. of Drills	No. of Above	No. of Drills	No. of Above	No. of Drills
1	None	1	None	2	1
3	1	2	1	6	2
16	2	3	2	1	3
1	3	2	3	2	4
17	No response	25	No response	18	No response

that emergency drills are conducted on vehicles
sporting handicapped students. (Item 42)

Three state departments of education conducted
emergency drill, sixteen two drills, one three drills,
another did not have any emergency drills. Seventeen
e departments of education did not respond to this
.

Data in Table 39 indicate one large school system
not offer any emergency drills, four other large sys-
conducted one and three drills each, and twenty-
large school systems did not complete the item.

Two small school systems conducted one emergency
l, six had two drills, one three drills, and two
rs had four emergency drills during the year.
teen small school systems did not respond to this
.

Table 40 presents the percentage of responses
ate departments of education and randomly selected
l systems to the following item: Does your state
hool system require all drivers to successfully
ete a final examination at the end of the course?
43)

Table 40 shows that 37.5 per cent of the state
ments of education required all drivers to success-
complete a final examination. Eighty per cent
ended this procedure.

E 40.--States and school systems requiring drivers to essfully complete a final examination at the end of the course

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
	37.5	80.0	27.6	82.4	50.0	66.7
	62.5	20.0	72.4	17.6	50.0	33.3

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in ent; R = Recommended Practices expressed in per cent.

Of the large school systems, 27.6 per cent uired all drivers to successfully complete a final mination at the end of the course, and 82.4 per cent ommended this practice.

One-half of the small school systems reported t all drivers are required to successfully complete inal examination, 66.7 per cent of the small school tems recommended this practice.

Table 41 presents the percentage of responses of te departments of education and randomly selected ool systems to the following item: Does your state school system require the driver to take a road test the completion of the course in the vehicle used for nsporting handicapped students, or one of equivalent ? (Item 44)

The figures in Table 41 reveal that at the com- ion of the course 42.4 per cent of the state depart- s of education required drivers to take a road test ne vehicle used for transporting handicapped stu- s, or one of equivalent size. Sixty-nine and two- ns per cent of the state departments recommended practice.

Data in Table 41 indicate that 58.6 per cent of arge school systems required the driver to take a test at the completion of the course, and 89.5 per of the large school systems reported this as a nended practice.

E 41.--States and school systems requiring the driver ake a road test at the completion of the course in the cle used for transporting handicapped students, or one of equivalent size

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
	42.4	69.2	58.6	89.5	45.8	80.0
	57.6	30.8	41.4	10.5	54.2	20.0

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in ent; R = Recommended Practices expressed in per cent.

Forty-five and eight-tenths per cent of the
l school systems required the driver to take a road
at the completion of the course, and 80 per cent
he small school systems recommended it.

Vehicle and Equipment

Table 42 presents the percentage of responses of
e departments of education and randomly selected
ol systems to the following item: Does your state
chool system have minimum standards with respect to
cles constructed or modified for the transportation
andicapped students? (8 to 23 passengers) (Item 45)

Data from Table 42 reveal that 74.3 per cent of
state departments of education had minimum standards
respect to vehicles constructed or modified for
sporting handicapped students. All state departments
ducation recommended minimum standards.

Of the large school systems, 60 per cent indi-
they had minimum standards with respect to vehicles
ructed or modified, and 82.4 per cent recommended
practice.

Sixty-one and five-tenths per cent of the small
l systems revealed having minimum standards with
t to vehicle construction and modification, and
cent of these schools recommended minimum standards.

Table 43 presents the percentage of responses
te departments of education and randomly selected

42.--States and school systems having minimum
ards with respect to vehicles constructed or
ied for the transportation of handicapped students

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
	74.3	100.0	60.0	82.4	61.5	80.0
	25.7		40.0	17.6	38.5	20.0

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
ent; R = Recommended Practices expressed in per cent.

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
a) Compact Buses						
Y	96.6		86.7		100.0	
N	3.4		13.3			
b) Carry-All						
Y	96.3		78.6		100.0	
N	3.7		21.4			
c) Station Wagons						
Y	100.0		55.6		100.0	
N			44.4			
d) Regular School Bus						
Y	100.0		100.0		100.0	
N						

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

hool systems to the following item: The type of
hicle(s) used in your state or school system for
nsporting handicapped students: (Item 46) The
lowing includes compact buses, carry-all vehicles,
tion wagons, and regular school buses.

a) Compact Buses

The data reveal that 96.6 per cent of the state
artments of education used compact buses for trans-
ting handicapped students.

Table 43 points out that 86.7 per cent of the
ge school systems transported handicapped students
compact buses.

All of the small school systems reported this
ctice.

b) Carry-all Vehicles

Data indicate 96.3 per cent of the state depart-
s of education used carry-all vehicles.

Table 43 shows that 78.6 per cent of the large
ol systems have carry-all vehicles.

All of the small school systems used carry-all
cles.

c) Station Wagons

All state departments of education indicated the
tice of transporting handicapped students in station
ns.

Fifty-five and six-tenths per cent of the large hool systems used station wagons.

All small school systems reported they transported ndicapped students in station wagons.

d) Regular School Buses

Data indicate all state departments of education, rge school systems, and small school systems transported ndicapped students to and from school in the regular hool bus.

e) Other

Additional data provided by respondents through e open-ended portion of this item follows:

Eight state departments of education reported ng automobiles, taxis, limousines, and the services private contractors for transporting handicapped dents.

Two large school systems transported handicapped dents by taxis and family automobiles, while four ge systems used regular school buses with a lift evator) attached to the side.

Two small school systems used taxis, while two ers used a step van and a lift bus.

Two advisory group members reported that no tion wagons or taxis should be used for the transpor- ion of handicapped students. One member recommended

carry-all vehicle equipped with a center isle. Another
ember recommended using a regular school bus that had
een modified.

Table 44 presents the percentages of responses of
ate departments of education and randomly selected
hool systems to the following item: Does your state
school system require all vehicles (with the exception
station wagons) to be painted National School Bus
ossy-Chrome Yellow for transporting handicapped stu-
nts? (Item 47)

The data in Table 44 indicate that 55.6 per cent
the state departments of education required all
nicles to be painted National School Bus Glossy-Chrome
llow. Seventy and six-tenths per cent of the state
partments of education recommended this practice for
vehicles except the station wagon.

Table 44 further reveals that 87.5 per cent
the large school systems required all vehicles (with
exception of station wagons) to be painted National
ool Bus Glossy-Chrome Yellow, and 94.1 per cent of
large systems recommended this practice.

Table 44 shows that 76.9 per cent of the small
ool systems required all vehicles to be painted
ional School Bus Glossy-Chrome Yellow, and 84.6 per
t of the small school systems reported this as a
mmended practice.

E 44.--States and school systems requiring all
:les (with the exception of station wagons) to be
:ed National School Bus Glossy-Chrome Yellow for
transporting handicapped students

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
55.6	70.6	87.5	94.1	76.9	84.6
44.4	29.4	12.5	5.9	23.1	15.4

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
ent; R = Recommended Practices expressed in per cent.

Table 45 presents the percentage of responses of ate departments of education and randomly selected hool systems to the following item: Does your state school system require a special door opening on the ght side of the carry-all, no less than forty-eight ches in width? (Item 48)

The data in Table 45 indicate that 48.5 per cent the state departments of education required a special or no less than forty-eight inches in width that opens the right side of the carry-all. Eighty-five and ven-tenths per cent of the state departments of edu- ion recommended this requirement.

Of the large school systems, 46.2 per cent uired this special door and 69.2 per cent recommended h a requirement.

Sixteen and seven-tenths per cent of the small ool systems had the same requirement. One-half of small school systems recommended this practice.

Table 46 presents the percentage of responses state departments of education and randomly selected ool systems to the following item: Do all ramps used loading and unloading students require sufficient ength and rigidity to support a wheel chair, occupant, attendant? (Item 49)

Table 46 shows that 80 per cent of the state rtments of education required that all ramps used

E 45.--States and school systems requiring a special opening on the right side of the carry-all, no less than forty-eight inches in width

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
48.5	85.7	46.2	69.2	16.7	50.0
51.5	14.3	53.8	30.8	83.3	50.0

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in ent; R = Recommended Practices expressed in per cent.

LE 46.--States and school systems having loading and
oading ramps meeting sufficient strength and rigidity
iirements to support a wheel chair, occupant, and
attendant

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
80.0	100.0	66.6	93.8	44.4	90.9
20.0		33.3	6.2	55.6	9.1

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
ent; R = Recommended Practices expressed in per cent.

loading and unloading students have sufficient
ength and rigidity to support a wheel chair, occupant,
attendant. All of the state departments of education
ommended this practice.

Of the large school systems, 66.7 per cent indi-
ed that they required all ramps to have sufficient
ength and rigidity to support a wheel chair, occupant,
attendant. This requirement was recommended by
3 per cent of the large school systems.

Forty-four and four-tenths per cent of the small
ol systems required all ramps to have sufficient
ength and rigidity to support a wheel chair, occupant,
attendant and 90.9 per cent of the small systems
mmended this requirement.

Table 47 presents the percentage of responses
tate departments of education and randomly selected
ol systems to the following item: Is all power lift
oment required to be of sufficient capacity to lift
eel chair and the occupant? (Item 50)

Table 47 indicates that 80.6 per cent of the
departments of education required all power lift
ment to be of sufficient capacity to lift a wheel
and the occupant. All of the state departments
mended this standard.

Seventy-seven and eight-tenths per cent of the
systems required all power lift equipment to be of

E 47.--States and school systems requiring power lift
›ment to be of sufficient capacity to lift wheel chair
and the occupant

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
80.6	100.0	77.8	100.0	50.0	90.0
19.4		22.2		50.0	10.0

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
ent; R = Recommended Practices expressed in per cent.

ficient capacity to lift a wheel chair and the occu-
t. Again this was recommended by all large school
ems.

One-half of the small school systems required power lift equipment to be of sufficient capacity lift a wheel chair and the occupant, and 90 per cent he small school systems recommended this requirement.

Table 48 presents the percentage of responses tate departments of education and randomly selected ol systems to the following item: Does your state or ol system require all special equipment to be con-cted of sufficient strength and rigidity to support handicapped student? (Item 51)

Data presented in Table 48 indicate that 74.2 per of the state departments of education required all al equipment to be of sufficient strength and ity to support the handicapped students. All of tate departments of education recommended this ice.

Of the large school systems 82.6 per cent red that all special equipment be of sufficient gth and rigidity. The above was recommended by all school systems.

Fifty-five and six-tenths per cent of the small systems required all special equipment to be of ient strength and rigidity to support the

LE 48.--States and school systems requiring all special
ipment to be of sufficient strength and rigidity to
support the handicapped student

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
74.2	100.0	82.6	100.0	55.6	88.9
25.8		17.4		44.4	11.1

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
cent; R = Recommended Practices expressed in per cent.

andicapped student. Eighty-eight and nine-tenths per ent of the small school systems recommended this ractice.

Table 49 presents the percentage of responses state departments of education and randomly selected hool systems to the following item: Does your state school system require vehicles carrying handicapped udents to have two-way radios? (Item 52)

The data in Table 49 indicate that none of the ate departments of education required vehicles carry- g handicapped students to have two-way radios. Seventy- ree and three-tenths per cent of the state departments education supported this recommendation.

Three and one-tenth per cent of the large school stems indicated having two-way radios, while sixty-one nine-tenths per cent recommended this practice.

Sixteen per cent of the small school systems uired vehicles to have two-way radios, and 61.5 per t of the small systems supported this recommendation.

Table 50 presents the percentage of responses state departments of education and randomly selected ool systems to the following item: Are any vehicles rying handicapped students equipped with two-way ios? (Item 53)

Table 50 shows that 60.6 per cent of the state artments of education had some vehicles carrying

E 49.--States and school systems requiring vehicles arrying handicapped students to have two-way radios

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
-	73.3	3.1	61.9	16.0	61.5
100.0	26.7	96.9	38.1	84.0	38.5

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in ent; R = Recommended Practices expressed in per cent.

LE 50.--States and school systems having vehicles which
ry handicapped students equipped with two-way radios

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
60.6	78.6	10.7	70.0	13.6	63.6
39.4	21.4	89.3	30.0	86.4	36.4

Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
cent; R = Recommended Practices expressed in per cent.

andicapped students equipped with two-way radios. eventy-eight and six-tenths per cent of the state epartments recommended two-way radios.

Of the large school systems reporting, 10.7 per ent had some vehicles equipped with two-way radios. eventy per cent of the large school systems recommended his equipment.

Only thirteen and six-tenths per cent of the mall school systems had vehicles equipped with two-way adios. Sixty-three and six-tenths per cent of the small chool systems recommended this practice.

Table 51 presents the percentage of responses of tate departments of education and randomly selected chool systems to the following item: Does your state school system require vehicles carrying handicapped udents to use restraining devices whenever the vehicle in motion? (Item 54)

The data in Table 51 indicate that 47.2 per cent the state departments of education required vehicles rrying handicapped students to use restraining devices enever the vehicle is in motion. Eighty-four and six-nths per cent of the state departments recommended this ocedure.

Table 51 shows that 46.9 per cent of the large hool systems required vehicles to use restraining vices, and 73.7 per cent of these systems recommended s practice.

LE 51.--States and school systems requiring vehicles
rying handicapped students to use restraining devices
whenever the vehicle is in motion

Respondents					
State Departments of Education		Large School Systems		Small School Systems	
C	R	C	R	C	R
47.2	84.6	46.9	73.7	32.0	75.0
52.8	15.4	53.1	26.3	68.0	25.0

Due to rounding, the totals may not always equal
100 per cent.

Y = Yes; N = No; C = Current Practices expressed in
cent; R = Recommended Practices expressed in per cent.

The figures in the table reveal that 32 per cent the small school systems required the use of restrain- g devices whenever the vehicle is in motion, and three- urths of the small school systems recommended this quirement.

Table 52 presents the percentage of responses state departments of education and randomly selected hool systems to the following item: How often does ur state or school system require inspection of school hicles transporting handicapped students? (Item 55) e following includes no special requirement, annual semi-annual inspections.

a) No Special Requirement

One state department of education did not uire any inspection.

Three large school systems did not require any pection of these vehicles.

Two small school systems did not require any pection of school vehicles transporting the handicapped.

b) Annual School Vehicle Inspection

Twelve state departments of education required annual inspection.

Fourteen large school systems required an annual pection, and nine small school systems required an ual inspection of vehicles transporting handicapped ents.

TABLE 52.--States and school systems requiring periodic inspection of school vehicles transporting handicapped students

State Departments of Education		Large School Systems		Small School Systems	
No. of Above	No. of Inspections Per Year	No. of Above	No. of Inspections Per Year	No. of Above	No. of Inspections Per Year
1	None	3	None	2	None
12	1	14	1	9	1
18	2	6	2	11	2
6	3 or more	10	3 or more	4	3 or more
1	No response			3	No response

c) Semi-Annual School Vehicle Inspection

Eighteen state departments of education had semi-annual inspections, while six large school systems and eleven small systems required semi-annual inspection of vehicles carrying handicapped students.

d) Other

Additional data provided by respondents through the open-ended portion of this item were presented below:

Five state departments of education indicated they had inspection once per month for school vehicles transporting handicapped students. One state department reported motor vehicle inspection three times per year.

Two large school systems indicated daily inspections, and four large systems reported a weekly inspection. Three large systems reported bus inspections once per month and three reported inspections every three months.

Among three small school systems there was a monthly inspection, an inspection three times per year, and an inspection every six weeks.

Two advisory members indicated daily inspections, two recommended semi-annual inspections, and two recommended a monthly inspection.

Table 53 presents the percentage of responses of state departments of education and randomly selected

TABLE 53.--States and school systems requiring vehicles transporting handicapped students to meet inspection requirements that are different from regular school buses

	Respondents					
	State Departments of Education		Large School Systems		Small School Systems	
	C	R	C	R	C	R
Y	2.9		18.7		3.8	
N	97.1		81.2		96.2	

Key: Due to rounding, the totals may not always equal 100 per cent.

Y = Yes; N = No; C = Current Practices expressed in per cent; R = Recommended Practices expressed in per cent.

school systems to the following item: Is the vehicle inspection different from regular school bus inspections? (Item 56)

Table 53 shows that 2.9 per cent of the state departments of education required inspection for vehicles transporting handicapped students to be different from that of regular school buses.

Eighteen and seven-tenths per cent of the large school systems reported that vehicles transporting handicapped students should have a different inspection from that required of regular school buses.

Of the small school systems 3.8 per cent required inspection for vehicles carrying handicapped students to be different from that required of regular school buses.

Additional data provided by respondents through the open-ended portion of this item are presented below:

How is Inspection Different from Regular School Bus Inspection?

Two state departments of education reported that special equipment on vehicles transporting the handicapped was inspected each day. One state department of education indicated that the inspection was performed by the state department of transportation each month.

Three large school systems indicated a daily inspection by the driver, and two systems reported weekly inspections of ramps and first aid kits in addition to the regular school bus inspection.

Three advisory group members recommended a careful check of lifts, ramps, restraining devices, and other equipment, and that all vehicles transporting handicapped students should have their interiors checked daily.

Table 54 presents the percentage of responses of state departments of education and randomly selected school systems to the following item: Estimate the total number of handicapped students transported in your state or school system? How many drivers and vehicles are specifically used to transport these students?

Not all state departments of education, large school systems, and small school systems responding to the questionnaire, answered all of the above items.

Estimated Number of Handicapped Students Transported (Item 12)

Twenty-four state departments of education estimated that 303,908 handicapped students are transported daily. This ranged from 50 students in Kansas, to 30,000 students in the state of Ohio.

Thirty-two of the large school systems estimated that 9,401 handicapped students were transported each day. The reported daily range of handicapped students transported was a low of 12 students in Las Cruces, New Mexico to a high of 2,300 students in (Prince George County) Upper-Marlboro, Maryland.

TABLE 54.--An estimated number of handicapped students transported daily in each state and school system. An estimated number of drivers and vehicles specifically used to transport these students

	State Departments of Education	Large School Systems	Small School Systems
Total Respondents	24	32	28
Percentage of Respondents	63.1%	96.9%	96.5%
Estimated number of handicapped students transported.	303,908	9,401	3,266
Range of handicapped students transported. (Daily)	50 to 30,000	12 to 2,300	18 to 380
Number of drivers specifically hired to transport handicapped students. (Daily)	13,932	447	83
Range of number of drivers hired.	5 to 4,000	1 to 175	1 to 10
Number of vehicles specifically used to transport handicapped students. (Daily)	11,903	465	93
Range of number of vehicles used.	5 to 3,600	1 to 175	1 to 10

Twenty-eight small school systems estimated that 3,266 handicapped students were transported each day. The range was from 18 students in North Platt, Nebraska to 380 students in Augusta, Georgia.

Number of Drivers Specifically Hired to Transport Handicapped Students (Item 13)

The number of drivers specifically hired to transport handicapped students by 24 state departments of education was 13,932. They ranged from 5 drivers in Kansas to 4,000 drivers in Ohio.

Thirty-two large school systems hired 447 drivers, with a range of 1 driver in Owensboro, Kentucky to 175 drivers in Upper-Marlboro, Maryland.

Twenty-eight small school systems specifically hired 83 drivers to transport handicapped students. The range was 1 driver in North Platte, Nebraska to 10 drivers in Norwich, Connecticut.

Number of Vehicles Specifically Used to Transport Handicapped Students (Item 14)

Twenty-four state departments of education estimated that 11,903 vehicles were specifically used to transport handicapped students to and from school each day. The range was 5 vehicles in North Dakota to 3,600 vehicles in the state of Pennsylvania.

Thirty-two large school systems estimated that 465 vehicles were specifically designated to transport

handicapped students to school daily. The range was 1 vehicle in Owensboro, Kentucky to 175 vehicles in Upper-Marlboro, Maryland.

Twenty-eight small school systems estimated that 93 vehicles were used to transport handicapped students. The range was 1 vehicle in North Platte, Nebraska to 10 vehicles in Norwich, Connecticut.

Recommended Practices Supported by Members of the Advisory Group

The advisory group was asked to select and submit recommended practices for each item in the survey questionnaire and to indicate additional recommendations appropriate to a program which transports handicapped students to and from school. Recommended practices reported by the six members of the advisory group were tabulated separately and are presented below.

Administrative Procedures

(1) Require a minimum of fifteen hours of classroom and twelve hours of in-the-bus road pre-service instruction before the applicant operates the bus on a given route;

(2) Require all drivers to take the Red Cross First Aid Course or its equivalent;

(3) Require all drivers to take the National Safety Council's Defensive Driving Course or one of similar nature;

(4) Administrative guides should be available with a section pertaining to the transportation of handicapped students.

Selection of Drivers

(1) All new applicants should complete an application form when applying for employment;

(2) Only licensed optometrists shall perform visual examinations for all drivers transporting handicapped students;

(3) Require all drivers to have a medical and visual re-examination every year;

(4) There should be a minimum age of twenty-one and a maximum age of sixty-five for all drivers transporting handicapped students. In addition there should be a re-examination of drivers at age fifty-five and sixty.

Instructional Programs

(1) Standards should be established calling for qualified instructors to prepare drivers who transport students to and from school;

(2) Five members of the advisory group recommended a minimum of fifteen hours of classroom instruction for all bus drivers;

(3) A minimum of twelve hours of additional classroom instruction should be offered each year which includes six hours devoted to transporting handicapped students;

(4) There should be a minimum of twelve hours of in-the-bus road instruction for school bus drivers. Two hours of this instruction should be devoted to transporting handicapped students;

(5) Require emergency evacuation drills at least twice yearly on all vehicles transporting handicapped students;

(6) Five members of the advisory group recommended that all drivers be required to successfully complete a final examination at the end of the course.

Vehicle and Equipment

(1) Minimum construction and design standards should be established for all vehicles transporting handicapped students;

(2) Four members reported that station wagons should not be used for transporting handicapped students. Compact buses and carry-all vehicles should have isles between the seats;

(3) All vehicles transporting handicapped students should be painted National School Bus Glossy-Chrome Yellow (with the exception of station wagons);

(4) Vehicles carrying handicapped students should be required to use restraining devices whenever the vehicle is in motion;

(5) Vehicles carrying handicapped students should have two-way radios;

(6) Three members indicated monthly inspections, while another member recommended a daily inspection and two others supported semi-annual inspections.

Summary

Chapter IV presented an analysis of the data obtained through the survey questionnaire. Questionnaires were sent to each of the fifty state departments of education. Thirty-eight state departments (76%) returned usable questionnaires. Questionnaires were sent to a large school system (14,000 students or more) randomly selected from each state. Thirty-three large school systems (66%) returned completed questionnaires. In addition, questionnaires were also sent to one small school (13,999 students or less) randomly selected from each state. Twenty-nine small school systems (58%)

returned completed questionnaires. One hundred and fifty questionnaires were mailed and 100 usable questionnaires (66.6%) were returned. There were enough returns to provide data that helped to identify current and recommended practices used in transporting handicapped students. A number of respondents indicated that they did not know or were uncertain as to the information asked for and thus did not complete the questionnaire.

The data were presented in four sections corresponding to the four main areas included on the survey instrument. An individual table indicating the percentage of responses supporting each item and a narrative description showing the findings for each table was also presented.

Interpretation of the data provided support concerning the recommended practices for drivers transporting handicapped students. Many of the respondents recommended other administrative policies not found among the items used in the selection and instruction of drivers transporting handicapped students. Additional information was reported concerning minimum vehicle standards and equipment used thereon when transporting handicapped students. The data provided evidence to support the inclusion of certain requirements to up-date and expand at the national level the methods of selecting and instructing drivers transporting handicapped students.

This chapter also included recommendations made by the six advisory group members who work in the field of pupil transportation and safety. Not only are recommended practices suggested, but additional guidelines are included which they felt would be of value in developing a program for transporting handicapped students.

In Chapter V are found a summary of the study, major findings, conclusions derived from the findings, recommendations, recommendations for future research, and a discussion.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter IV presented an analysis of the data. In Chapter V are found: (1) a summary of the study, (2) major findings of the survey, (3) conclusions derived from the findings, (4) recommendations, (5) recommendations for future research, and (6) a discussion.

Summary

Statement of the Problem

The purpose of the study was to identify current and recommended practices in the transportation of handicapped students to and from school.

Today all states have expanded the transportation program for handicapped students. At the national level the responsibility of transporting handicapped students has placed a tremendous burden upon the drivers. The driver needs a better understanding of the various problems he may encounter. There is a need to update

and expand the selection and educational methods and practices for drivers who are going to operate special vehicles.

Methods and Procedures Employed

It was decided at the inception of this study that data would be sought at the national level from the fifty state departments of education and two school systems randomly selected from each state. The method of selecting a sample from the school population was to randomly select from each state, two different sized school systems. The division consisted of school systems located in cities or towns having school enrollments as follows:

(1) 14,000 and more students

(2) 13,999 students or less

Two questionnaires were designed and used for the study. Both questionnaires were similar, except that the state department of education questionnaire had four additional questions. Each questionnaire was divided into the following four sections: Administrative procedures, Selection of drivers, Instructional programs, and Vehicles and equipment.

When the integral component parts of the survey instrument were developed, it was reviewed by the Educational Research Department of Michigan State University

and the Supervisor of Pupil Transportation, Michigan State Department of Education. Three school systems in Ingham County, Michigan, pre-tested the survey instrument prior to mailing.

A complete packet of materials was mailed to the 150 state departments of education, large school systems, and small school systems. One month later, follow-up materials were sent to those institutions which failed to respond to the initial mailing. The initial and subsequent follow-up brought a total of 100 returns (66.6%) from the 150 institutions sampled.

When the completed questionnaires were returned, the date, names, and titles of the respondents were recorded on a master form. Analysis of the data involved were tabulated according to state departments of education, large school systems, and small school systems. All computations were processed through the Control Data Corporation 6500 computer. The data were presented together, but tabulated separately, in percentages to the nearest tenth. A narrative description of each individual analysis was followed by a table indicating the number of responses and percentages.

A review of the literature was made. Much of the literature available was composed of small items which appeared in a number of publications in the form of speeches, reports, seminars, and professional meetings.

In reviewing doctoral dissertations and survey studies, the authors touched upon pupil transportation in general but very little literature covered the specific area of transporting handicapped students.

To determine the value of the various current practices and procedures in transporting handicapped students, the doctoral committee recommended the selection of an advisory group of six experts. Five people were recommended by Mr. David Soule, Department of Transportation, National Highway Traffic Safety Administration in Washington, D.C. A letter was mailed to these persons considered to have national stature in the field of school bus transportation. They were asked to serve as members of an advisory group with all six answering in the affirmative. The six members of the advisory group were mailed questionnaires. They were asked to make personal evaluations of each item concerning recommended practices and to suggest any additional items that they felt would be of value in the development of a program of transporting handicapped students.

The Findings

The following is a summary of the findings of the research survey. The findings are presented in four sections:

Administrative Procedures

Selection of Drivers

Instructional Programs

Vehicles and Equipment

Administrative Procedures

1. Thirty-four point three per cent of the state departments of education, 21.9 per cent of the large school systems, and 20.7 per cent of the small school systems utilized official printed policies covering job descriptions for drivers transporting handicapped students, and 82.6 per cent of the state departments, 69.6 per cent of the large systems, and 77.3 per cent of the small systems recommended the use of printed policies.

2. Ninety-three point five per cent of the state departments of education, 87.1 per cent of the large school systems, and 88.9 per cent of the small school systems reported having physical examinations as a policy to evaluate drivers transporting handicapped students. Only 35.7 per cent of the state departments, 46.7 per cent of the large systems, and 54.2 per cent of the small systems used the personal inventory to evaluate the drivers. All of the state departments of education, 94.7 per cent of the large school systems, and 86.7 per cent of the small school systems recommended the policy of physical examination for all drivers transporting handicapped students. Seventy-eight per cent of the state departments, 70 per cent of the large systems, and 66.7 per cent of the small systems

recommended the practice of using the personal inventory to evaluate drivers transporting handicapped students.

3. Only 28.9 per cent of the state departments of education, one-fourth of the large school systems, and 37.9 per cent of the small school systems required the basic Red Cross First Aid course for all school bus drivers. Eighty-five per cent of the state departments, 90 per cent of the large systems, and 75 per cent of the small systems recommended the basic Red Cross First Aid course be a requirement for all drivers.

4. Five point four per cent of the state departments of education, 21.9 per cent of the large school systems, and 28.6 per cent of the small school systems required all drivers to take the National Safety Council's Defensive Driving course. Eighty point eight per cent of the state departments, 95.8 per cent of the large systems, and 58.8 per cent of the small systems recommended that all drivers be required to take the Defensive Driving course.

5. Twenty-seven point three per cent of the state departments of education, 19 per cent of the large school systems, and only 8.7 per cent of the small school systems had a section within an administrative guide pertaining to the handicapped student. Ninety-two point nine per cent of the state departments,

73.3 per cent of the large systems, and 93.7 per cent of the small systems recommended this practice.

6. Ninety-four point seven per cent of the state departments of education, 71.9 per cent of the large school systems, and 85.7 per cent of the small school systems permitted handicapped students to be transported by regular school buses. Seventy-nine point two per cent of the state departments, 81.2 per cent of the large systems, and 88.2 per cent of the small systems stated there were no problems mixing students. All of the state departments, 82.4 per cent of the large systems, and 83.3 per cent of the small systems recommended that all handicapped students be transported by regular school buses.

Selection of Drivers

1. Ninety-seven point one per cent of the state departments of education, 93.5 per cent of the large school systems, and 85.7 per cent of the small school systems required each school bus driver applicant to pass a medical examination before being employed to transport handicapped students. All of the state departments, large school systems, and 72.7 per cent of the small systems recommended that each school bus driver applicant pass a medical examination before being employed to transport handicapped students.

2. All state departments of education, 90 per cent of the large school systems, and 89.3 per cent of the small school systems required each applicant to pass a visual examination before being employed to transport handicapped students. All of the state departments, large school systems, and 81.8 per cent of the small systems recommended each applicant to pass a visual examination before transporting handicapped students to school.

3. Ninety-four point three per cent of the state departments of education, 93.7 per cent of the large school systems, and 89.3 per cent of the small school systems required a tuberculosis test. The tuberculin test was the most widely used. All of the state departments, 94.1 per cent of the large systems, and all of the small school systems recommended a tuberculosis test.

4. Eighty-nine point two per cent of the state departments of education, 71.4 per cent of the large school systems, and 77.8 per cent of the small school systems had medical forms that required the physician to certify that the driver was medically qualified to transport students. Only 3.4 per cent of the state departments, 4.3 per cent of the large systems, and none of the small systems had any medical requirements different for drivers transporting handicapped students.

Ninety-two point three per cent of the state departments, 94.4 per cent of the large systems, and 91.7 per cent of the small systems, recommended that the physician certify the driver as medically qualified to transport handicapped students.

5. Twenty-eight state departments of education, twenty-six large school systems, and twenty-three small school systems indicated that after the initial medical examination the driver reported every year for re-examination.

6. Twenty-two state departments of education, twenty-one large school systems, and nineteen small school systems reported that after the initial visual examination the driver reported every year for re-examination.

7. Most state departments of education, large school systems, and small school systems had a minimum age of twenty-one years and a maximum of sixty-five years for drivers transporting handicapped students.

8. Only 37.1 per cent of the state departments of education, 3.6 per cent of the large school systems, and 3.7 per cent of the small school systems suggested a change in the age limits for transporting handicapped students.

Instructional Programs

1. Sixty-eight point seven per cent of the state departments of education, 62.5 per cent of the large school systems, and 62.9 per cent of the small school systems used qualified instructors to prepare drivers transporting students. All state departments, 84.3 per cent of the large systems, and 69.2 per cent of the small systems recommended qualified instructors to prepare drivers transporting students. Many of the state departments and school systems responding indicated the adoption of "Standards for School Bus Operators" developed by the National Conference on School Transportation.

2. Fifty-three point one per cent of the state departments of education, 40 per cent of the large school systems, and 59.3 per cent of the small school systems required classroom instruction for all drivers transporting handicapped students. One hundred per cent of the state departments, 78.9 per cent of the large systems, and 66.7 per cent of the small systems recommended classroom instruction.

3. Forty-five point two per cent of the state departments, 65.5 per cent of the large systems, and 77.8 per cent of the small systems required in-the-bus road instruction for all drivers transporting handicapped

students. Only 26.7 per cent of the state departments, 51.7 per cent of the large systems, and half the small systems required the drivers to have an understanding of the problems that handicapped students met each day. All state departments, 88.9 per cent of the large systems, and three-fourths of the small school systems recommended in-the-bus road instruction for all drivers transporting handicapped students. All state departments, large school systems, and 71.4 per cent of the small systems recommended that all drivers have an understanding of the problems that handicapped students will encounter.

4. Eighty-four point eight per cent of the state departments of education, 80.8 per cent of the large school systems, and 91.7 per cent of the small school systems included school vehicle operating procedures in the classroom instruction. Only 41.9 per cent of the state departments, 44 per cent of the large systems, and 54.2 per cent of the small systems included how to use special equipment for the handicapped student. Forty-eight point five per cent of the state departments, 57.7 per cent of the large systems, and 62.5 per cent of the small systems, included how to load and unload handicapped students in classroom instruction. All state departments, 92.9 per cent of the large systems, and 88.9 per cent of the small systems recommended including school vehicle operating procedures in the

classroom phase of instruction. Ninety-five point two per cent of the state departments, 91.7 per cent of the large systems, and 92.9 per cent of the small systems recommended including the use of special equipment for handicapped students as part of the classroom instruction. All state departments, 92.3 per cent of the large systems, and 85.7 per cent of the small systems recommended including loading and unloading handicapped students as part of the instruction.

5. Only 2.7 per cent of the state departments of education, 3.4 per cent of the large school systems, and none of the small school systems required additional classroom instruction for drivers transporting handicapped students. Eighty-six point nine per cent of the state departments, 88.9 per cent of the large systems, and 60 per cent of the small systems recommended additional classroom instruction.

6. Only 38.7 per cent of the state departments of education, 55.6 per cent of the large and small systems included loading and unloading procedures with use of equipment in the behind-the-wheel phase of instruction. Also, 74.2 per cent of the state departments, 88.5 per cent of the large school systems, and 92.6 per cent of the small school systems included emergency procedures in the behind-the-wheel (bus) phase of instruction. All state departments, small school systems, and

94.1 per cent of the large school systems recommended loading and unloading procedures with use of equipment, as part of the behind-the-wheel instruction. All state departments, small systems, and 93.8 per cent of the large systems recommended including emergency procedures as another phase of the behind-the-wheel (bus) instruction.

7. Only 2.9 per cent of the state departments of education, 6.9 per cent of the large school systems, and 10.7 per cent of the small school systems required additional in-the-bus road instruction for drivers transporting handicapped students. Eighty-three point three per cent of the state departments, 58.8 per cent of the large systems, and half the small systems recommended additional in-the-bus road instruction.

8. Sixty and six-tenths per cent of the state departments of education, 28.1 per cent of the large school systems, and 51.9 per cent of the small school systems required emergency evacuation drills on all vehicles transporting handicapped students. Ninety-four point one per cent of the state departments, 80.9 per cent of the large systems, and 71.4 per cent of the small systems recommended emergency evacuation drills. Sixteen state departments of education, three of the large school systems, and six of the small school systems required a minimum of two drills during the year.

Vehicle and Equipment

1. Seventy-four point three per cent of the state departments of education, 60 per cent of the large school systems, and 61.5 per cent of the small school systems had minimum standards with respect to vehicles constructed or modified for transporting handicapped students. All state departments, 82.4 per cent of the large systems, and 80 per cent of the small systems recommended the minimum standards with respect to vehicles constructed or modified.

2. Fifty-five point six per cent of the state departments of education, 87.5 of the large school systems, and 76.9 per cent of the small school systems required all vehicles (with the exception of station wagons) to be painted National School Bus Glossy-Chrome Yellow for transporting handicapped students. Seventy point six per cent of the state departments, 94.1 per cent of the large systems, and 84.6 per cent of the small systems recommended all vehicles to be painted National School Bus Glossy-Chrome Yellow for transporting handicapped students.

3. Seventy-four point two per cent of the state departments of education, 82.6 per cent of the large school systems, and 55.6 per cent of the small school systems required all special equipment to be constructed

of sufficient strength and rigidity to support the handicapped student. All state departments, large schools, and 88.9 per cent of the small school systems recommended all special equipment to be constructed of sufficient strength and rigidity.

4. Sixty per cent of the state departments of education, 10.7 per cent of the large school systems, and 13.6 per cent of the small school systems had vehicles carrying handicapped students that are equipped with two-way radios. Seventy-eight point six per cent of the state departments, 70 per cent of the large systems, and 63.6 per cent of the small systems recommended all vehicles carrying handicapped students be equipped with two-way radios.

5. Forty-seven point two per cent of the state departments of education, 46.9 per cent of the large school systems, and 32 per cent of the small school systems required handicapped students to use restraining devices whenever the vehicle was in motion. Eighty-four point six per cent of the state departments, 73.7 per cent of the large systems, and three-fourths of the small systems recommended that all handicapped students use restraining devices whenever the vehicle was moving.

6. Only 2.9 per cent of the state departments of education, 18.7 per cent of the large school systems, and 3.8 per cent of the small school systems had

inspection of vehicles transporting handicapped students different from the regular school bus inspections.

Conclusions

The following conclusions are based upon the major findings of this study. They are arranged under the four headings in which the data were gathered, namely: Administrative Procedures, Selection of Drivers, Instructional Programs, and Vehicles and Equipment.

Administrative Procedures

1. There should be official printed policies covering any person involved in a program transporting handicapped youngsters.

2. A basic course in First Aid similar in nature to the American Red Cross course or others that are sanctioned, should be required of all drivers transporting handicapped youngsters.

3. Programs designed to train drivers responsible for transporting handicapped youngsters should include material from the National Safety Council's Defensive Driving Course.

Selection of Drivers

1. After the initial medical and visual examination, all drivers should report every year for re-examination.

Instructional Programs

1. Qualified instructors should be used to prepare drivers transporting youngsters to and from school.

2. Special classroom and behind-the-wheel instruction should be given to drivers whose duties will include transporting handicapped youngsters.

3. Emergency evacuation drills should be held on all vehicles transporting handicapped youngsters.

Vehicle and Equipment

1. There should be design and construction standards for all vehicles transporting handicapped youngsters.

2. All vehicles (with the exception of station wagons) transporting handicapped youngsters should conform to the National School Bus Glossy-Chrome Yellow standard.

3. All vehicles carrying handicapped students should have in use restraining devices whenever the vehicle is in motion.

4. All vehicles carrying handicapped students should be equipped with two-way communication devices.

Recommendations

The following are recommendations based on the findings and conclusions of this study:

1. State departments of education should be more involved in the development of administrative procedures for transporting handicapped students to and from school.

2. All school systems should be required to adopt state regulations that conform to National standard for effective selection and training of drivers transporting handicapped students.

3. State departments of education should be involved in conducting a well-balanced program of classroom and in-the-bus road phases of instruction, including the use of special equipment and procedures for loading and unloading handicapped students.

4. State departments of education should promulgate standards for emergency evacuation on all vehicles transporting handicapped youngsters.

5. National standards for preparing drivers of handicapped students should be developed.

6. Research data should be applied to better vehicle design and construction.

Implications for Further Research

This study raised certain questions indicating further research is needed. On the basis of the findings, the following should be considered for further research.

1. A follow-up study should be conducted to determine the extent to which state departments of education have implemented the practices recommended for evaluation of drivers transporting handicapped students.

2. A study should be undertaken to compare those states having well-organized programs in transporting handicapped students with those states that do not.

3. A study be conducted to evaluate on-going programs to determine the effectiveness of varying driver selection and instruction programs.

4. A study should be conducted to determine criteria needed to evaluate the competencies of instructors who prepare drivers transporting students.

5. A university-sponsored research study should be undertaken to determine how improvements could be made to those programs providing drivers with the information and skills needed to transport handicapped students safely to school.

6. A study should be made to determine the best equipment for school vehicles used for transporting handicapped students.

Discussion

Presented in this section are the views the writer gained from past experiences in pupil transportation, the review of literature, and the data obtained

in this study. Examination of the findings has led the writer to note there are some discrepencies between current and recommended practices for drivers transporting handicapped students. The data show that the majority of the respondents was concerned with most items applicable to those drivers transporting handicapped students.

It was observed by the writer that there are some state departments of education and school systems not prepared to perform the special services needed to include transporting handicapped students within the present pupil transportation program. However, most respondents recommended practices that would be beneficial to a program involved with the transportation of handicapped students. In the author's opinion, this type of program should not be just an initial effort, rather it should be a continuous program of education with in-service and workshop sessions conducted by state departments of education.

It is evident that the state departments of education will have to make an increased effort to develop an administrative guide with a section pertaining to the handicapped student. Therefore, evidence seems to indicate that with a program of this size, state departments of education should be involved in its administration.

The program should be a well-rounded one with qualified instructors transporting the handicapped students.

Other state agencies should assume some responsibilities such as the licensing of school buses and drivers and also bus inspections by the department of motor vehicles.

It is suggested that the maximum age at which an individual be permitted to operate a bus transporting handicapped students be determined following his yearly medical and visual re-examinations.

Various methods to improve the current practices of transporting handicapped students have been cited by the respondents in this survey. It is the writer's view that progress will be made in transporting handicapped students when the findings and recommendations of this study are implemented in all states.

BIBLIOGRAPHY

BIBLIOGRAPHY

Books

Aaron, James E., and Strasser, Marland K. Driver and Traffic Safety Education. New York: The Macmillan Company, 1966.

American Association of School Administrators. Safety Education. 18th Yearbook. Washington, D.C.: National Education Association, 1940.

Armore, Sidney. Introduction to Statistical Analysis and Inference. New York: John Wiley & Sons, 1967.

Association of Casualty and Surety Companies. Truck and Bus Drivers Rule Book. New York: The Association, 1952.

Campbell, William Giles. Form and Style in Thesis Writing. 3rd edition. New York: Houghton Mifflin Co., 1969.

DeReamer, Russel. Modern Safety Practices. New York: John Wiley & Sons, 1958.

Florio, A. E., and Stafford, G. T. Safety Education. New York: McGraw-Hill Book Co., 1962.

Good, Carter V., and Scates, D. E. Methods of Research. New York: Appleton-Century-Crofts, Inc., 1954.

Hayes, William L. Statistics. New York: Holt, Rinehart and Wilson, 1963.

Hamilton, Robert R., and Mort, Paul. The Law and Public Education. New York: The Foundation Press, Inc., 1959.

Langton, Claire; Allen, Ross; and Wexler, Philip. School Health Organization and Services. New York: Ronald Press Co., 1961.

Long, Leeman H. The World Almanac, A Book of Facts. New York: Newspaper Enterprise Assoc., Inc., 1971.

Patterson's American Educator. Educational Directories Inc., LXVIII, Mt. Prospect, Illinois, 1971.

Perten, Mildred. Survey, Polls and Samples--Practical Procedures. New York: Harper Brothers, 1950.

Slakter, Malcolm J. Statistical Inference for Educational Researchers. Reading, Mass.: Addison-Wesley Publishing Company Inc., 1972.

Spahr, Walter E., and Swenson, Rinehart J. Methods and Status of Scientific Research. New York: Harper and Brothers, 1930.

Stack, Herbert J., and Elkow, J. Duke. Education for Safe Living. Englewood Cliffs, N.J.: Prentice-Hall Inc., 1966.

U.S. Department of Health, Education, and Welfare. Education Directory (Counties and Cities) 1971-72. Washington, D.C.: Government Printing Office, 1972.

_____. Education Directory (Public School Systems) 1971-72. Washington, D.C.: Government Printing Office, 1972.

Withey, Stephen B. Encyclopedia of Educational Research. New York: The MacMillan Company, 1960.

Bulletins and Pamphlets

Arnholter, E. G. Attitudes Toward the Disabled. Rehabilitation Counseling Bulletin, March, 1963.

Barker, R. G.; Wright, B. A.; and Meyerson, L. Adjustment to Physical Handicap and Illness. New York: Social Science Research Council, 1953.

California State Department of Education. Manual of First Aid Practices for School Bus Drivers. Sacremento: Superintendent of Public Instruction, 1970.

Cooper, John M., and Moorehouse, L. E. Assisting the Cerebral Palsied Child; Lifting and Carrying. New York: United Cerebral Palsy Assoc., 1959.

Edgar, J. W. Your Pupils: Their Safety Lies in Your Hands. Austin, Texas: Texas Educational Agency, 1958.

Fenderson, D. A. Attitudes Toward the Handicapped. Minnesota: Journal of Education, February, 1964.

Goldberg, M. J., and Davis, L. J. Method of Lifting Wheel Chair Into Two-Door Sedan. Archives of Physical Medicine and Rehabilitation, XLVIII (November, 1967).

Illinois State Department of Education. Illinois Manual for School Bus Drivers. Springfield: Illinois Department of Education, 1971.

Kansas State Highway Commission. Laws and Regulations Governing School Pupil Transportation. Kansas City: Traffic and Safety Department, 1967.

Lovett, B. H. Aids and Equipment for the Daily Life of the Physically Handicapped. Public Library of South Australia, 1967.

Michigan State Department of Education. Michigan School Bus Driver's Manual. Lansing, Mich.: Michigan Department of Education, 1972.

National Commission on Safety Education. Selection, Instruction, and Supervision of School Bus Drivers. Washington, D.C.: National Education Association, 1964.

_____. Accident Research for Better Safety Teaching. Washington, D.C.: National Education Association, 1964.

_____. Minimum Standards for School Buses. Washington, D.C.: National Education Association, 1964.

_____. Who Is Liable for Pupil Injuries? Washington, D.C.: National Education Association, 1950.

National Safety Council. Accident Facts. Chicago: National Safety Council, 1972.

National Safety Council. Bulletin on Safety Coordinators' Responsibilities. National Safety Council, 1971.

Ohio Department of Education. Pupil Transportation Laws and Regulations. Columbus: Superintendent of Public Instruction, 1971.

_____. Ohio School Bus Minimum Standards. Columbus: Superintendent of Public Instruction, 1971 revision.

Promisel, David M. School Bus Safety--Operator Age in Relation to School Bus Accidents. Darien, Conn.: Dunlap and Associates Inc., 1969.

Physicians for Automotive Safety. How Safe Is Pupil Transportation? Springfield, N.J.: Physicians for Automobile Safety, 1967.

Rusale, H. Guiding the Physically Handicapped College Student. New York: Bureau of Publications, Teachers College, Columbia University, 1963.

Wright, Beatrice A. Physical Disability: A Psychological Approach. New York: Harper, 1960.

Periodicals

Bauder, Paul D. "Do Your School Bus Drivers Know Their Job?" School Bus Fleet, Glenview, Illinois, 1964.

Bean, William. "Transportation Overview." Rehabilitation Recorder, July-August, 1972, pp. 1-6.

Calkins, C. D. "Controlling Bus Driver Physical Exams by Data Processing." Commercial Car Journal (December, 1968).

Calovini, Gloria. The Principal Looks at Classes for the Physically Handicapped. Washington, D.C.: The Council for Exceptional Children, N.E.A., 1969, pp. 28-30.

Cohen, Pauline C. "The Impact of the Handicapped Child on the Family." New Outlook for the Blind, LVIII, No. 1 (January, 1964), reprinted from Social Casework, XLIII, No. 3.

Daughton, J. "School Bus Collisions." Journal of Traffic Safety Education (January, 1973), 24.

Dembo, T.; Leviton, C. R.; and Wright, Beatrice A. "Adjustment to Misfortune--Social-Psychological Rehabilitation." Artificial Limbs, 1956, pp. 4-62.

Fenderson, D. A. "Attitudes Toward the Handicapped." Minnesota Journal of Education (February, 1964), 27-33.

Furno, O. F., and Costello, M. H. "Activities and Attitudes of Physically Handicapped Special Education Graduates." Exceptional Child, October, 1963, pp. 85-91.

Geiger, Clarence. "We Do Not Need Seat Belts in School Buses." School Bus Fleet, April-May, 1967.

Hall, W. T. "Physical (Cerebral Palsy) Handicap and Family Stress." Cerebral Palsy Review, July-August, 1963, pp. 3-5.

Jewett, Theodore C., Jr., M.D. "Accidental Trauma in the School Age Child." The Journal of School Health (June, 1962), 16-18.

Kearney, Paul W. "Who Drives Your School Bus?" Safety Education, March, 1954.

Loshbough, William G. "The Experts Respond." National Safety Congress Transactions, XVII.

Martin, Marion. "D.O.T. Cited for Neglect of School Bus Safety." Gannett News Service, The State Journal. Lansing, Michigan, November, 1972.

Rosenberg, Charlotte. "Assistive Devices for the Handicapped." Minneapolis: American Rehabilitation Foundation, 1968, p. 186.

U.S. Department of Transportation. "Transportation for the Handicapped." Selected References. Department of Transportation, Library Services Division. Bib. List No. 1. Washington, D.C., November, 1969, pp. 1-26.

Weingold, Joseph T. "Unbinding the Homebound Through Mobility." Rehabilitation Record, July-August, 1972, pp. 11-14.

Wilson, Harold L. "Barrier-Free Rapid Transit for San Francisco Bay Area." Rehabilitation Record, July-August, 1972, pp. 7-10.

Wizotzkey, D. G. "The Experts Respond--Driver Selection." National Safety Congress Transactions, XVII (Chicago: National Safety Council, 1969), 20.

Unpublished Materials

Central Michigan University. "School Bus Driver Education." Mt. Pleasant, Field Services, 1966-67. (Mimeographed.)

_____. "New School Bus Driver Conference." Mt. Pleasant, 1967. (Mimeographed.)

Constantine, Gus A. "Legal Liability for Injuries Sustained in the Transportation of Public School Pupils." Unpublished Ph.D. dissertation, Duke University, 1958.

Constante, Robert E. "A Survey of the State Departments of Education and Selected School Systems to Determine Methods of Student Accident Reporting for the Purpose of Designing a Model Statewide Student Accident Reporting System." Unpublished Ph.D. dissertation, Michigan State University, 1971.

Mader, John B. "Attitude of Special Educators Toward the Physically Handicapped and Toward Education." Unpublished Ed.D. dissertation, Michigan State University, 1967.

Moore, Nevil L. "A Study to Determine the Responsibilities, Training, and Time Involvement of Traffic Safety Education Workers in Selected Michigan Schools." Unpublished Ph.D. dissertation, Michigan State University, 1969.

Patterson, Ronald D. "Recommended Practices and Procedures for the Improvement of Programs for the Selection and Education of School Bus Drivers." Unpublished Ph.D. dissertation, New York University, 1959.

Strasser, Marland K. "The Development of a Program of Driver Selection, Training and Education for Commercial Motor Vehicle Fleets." Unpublished Ph.D. dissertation, New York University, 1949.

William, N. D. "An Exploratory Study of Factors Related to Accidental Injury to Children of Elementary School Age." Unpublished Ph.D. dissertation, George Peabody College for Teachers, 1965.

APPENDICES

APPENDIX A

CATEGORIES AND POPULATIONS OF RANDOMLY SELECTED SCHOOL SYSTEMS

APPENDIX A

Categories and Populations of
Randomly Selected School Systems

State and School System	*City Population	**School Enrollment
Alabama		
a) Huntsville	137,802	35,688
b) Decatur	38,044	9,319
Alaska		
a) @Anchorage	102,994	30,590
b) Fairbanks	30,618	8,537
Arizona		
a) Mesa	62,852	21,369
b) Flagstaff	26,117	7,934
Arkansas		
a) Fort Smith	62,802	14,994
b) Jonesboro	27,050	5,047
California		
a) Concord	85,164	48,198
b) Culver City	31,035	6,963
Colorado		
a) Aurora	74,974	19,150
b) Fort Collins	43,337	12,352
Connecticut		
a) Greenwich	59,755	14,155
b) Norwich	41,433	8,398
Delaware		
a) #Wilmington	80,386	15,178
b) @Milford	15,314	4,122

State and School System	*City Population	**School Enrollment
Florida		
a) Bartow (Polk County)		55,631
b) Sarasota (County)		20,028
Georgia		
a) @Augusta	59,864	35,725
b) Macon	122,423	32,453
Hawaii		
a) @Honolulu	324,871	181,147
b) @Waipahu	22,798	
Idaho		
a) @Boise	74,990	22,486
b) Caldwell	14,219	3,749
Illinois		
a) #Springfield	91,753	22,620
b) @Berkely	15,896	3,415
Indiana		
a) Terre Haute	70,286	23,344
b) @Greenwood	11,408	3,245
Iowa		
a) Sioux City	95,925	18,985
b) Centerville		2,203
Kansas		
a) #Topeka	125,011	24,319
b) Pittsburg	20,171	3,300
Kentucky		
a) Owensboro	50,329	14,806
b) @Carrollton	3,884	1,957

State and School System	*City Population	**School Enrollment
Louisiana		
a) Shrereport (Caddo Parish)		53,594
b) Plaquemine (Iberville Parish)		7,596
Maine		
a) Portland	65,116	14,487
b) Lewiston	41,779	9,638
Maryland		
a) Upper Marlboro (Prince Georges County)		159,491
b) Annapolis (Ann Arundel County)	29,592	33,922
Massachusetts		
a) Framingham	64,048	16,362
b) Chicopee	66,676	12,954
Michigan		
a) Kalamazoo	85,555	17,078
b) Traverse City	18,048	8,292
Minnesota		
a) #Roseville	34,518	13,717
b) Faribault	16,595	4,289
Mississippi		
a) #Jackson	153,968	30,408
b) @Meridian	45,083	9,893
Missouri		
a) #Springfield	120,096	25,924
b) @Columbia	58,804	10,573

State and School System	*City Population	**School Enrollment
Montana		
a) Great Falls	60,091	20,294
b) #Thompson Falls	1,356	584
Nebraska		
a) @Lincoln	149,518	30,000
b) North Platte	19,447	5,295
Nevada		
a) Nevada	72,863	20,000
b) @Gardnerville	1,320	798
New Hampshire		
a) Manchester	87,754	16,257
b) Dover	20,850	4,411
New Jersey		
a) @Patterson	144,824	26,443
b) #Westfield	33,720	8,762
New Mexico		
a) Las Cruces	37,857	15,791
b) Rosewell	33,908	10,417
New York		
a) #New Rochelle	75,385	14,693
b) Watertown	30,787	6,941
North Carolina		
a) Raleigh	121,577	23,083
b) Ashville	57,681	7,879
North Dakota		
a) Grand Forks	39,008	11,582
b) @Bismarck	34,703	8,160

State and School System	*City Population	**School Enrollment
Ohio		
a) Lakewood		10,650
b) Zanesville		8,076
Oklahoma		
a) Lawton	74,470	21,162
b) @Vinita	5,847	1,682
Oregon		
a) Eugene	76,346	21,526
b) @Newport	5,188	5,652
Pennsylvania		
a) #Scranton	103,564	16,276
b) Greensburg	15,870	5,737
Rhode Island		
a) Warwick	83,694	19,980
b) @Cranston	73,037	13,641
South Carolina		
a) #Columbia	113,542	39,845
b) @Bennettsville	7,468	3,727
South Dakota		
a) Sioux Falls	72,488	18,727
b) @Brookings	13,717	2,877
Tennessee		
a) Knoxville	174,587	32,730
b) Cleveland	20,651	3,755
Texas		
a) Abilene	89,653	17,970
b) Conroe	11,969	7,048

State and School System	*City Population	**School Enrollment
Utah		
a) Farmington	27,853	34,063
b) @Murray	21,206	6,456
Vermont		
a) Burlington	38,633	6,806
b) Rutland	19,293	3,621
Virginia		
a) Chesapeake	82,616	24,683
b) @Franklin	6,880	2,190
Washington		
a) @Renton	25,258	16,425
b) #Wenatchee	16,912	5,828
West Virginia		
a) @Charleston	71,505	17,963
b) @Clarksburg	2,576	1,170
Wisconsin		
a) Madison	173,258	31,967
b) Oconomowoc	8,741	4,415
Wyoming		
a) Cheyenne	40,914	14,144
b) @Rock Springs	11,657	3,175

School Districts Categories Listed by School Enrollment:

A. 14,000 and more students (LARGE)
B. 13,999 students and below (SMALL)

* City population taken from The World Almanac 1971.

** School enrollment taken from Patterson's American Education Directory.

\# School districts returning the questionnaire but not completing it for one reason or another.

@ School districts not responding to the questionnaire at all.

APPENDIX B

SURVEY QUESTIONNAIRES SENT TO STATE DEPARTMENTS OF EDUCATION AND TO RANDOMLY SELECTED SCHOOL SYSTEMS

APPENDIX B

"A SURVEY TO IDENTIFY CURRENT AND RECOMMENDED PRACTICES IN THE TRANSPORTATION OF HANDICAPPED STUDENTS"

State Department of Education Questionnaire

A series of responses concerning the bus programs in your state are requested. Most questions are applicable to those drivers transporting mentally, physically, and emotionally handicapped students. Please circle the letter (Y) YES or (N) NO for the Current Practices in your state. Under the column Recommended Practices circle the (Y) YES or (N) NO response that you think should or should not be a recommended practice for a state. All other questions should be completed as specified. This survey questionnaire is planned to take approximately 12 minutes to complete.

Please return the completed questionnaire in the self-addressed, stamped envelope to:

Daniel E. Della-Giustina
Room 72, Kellogg Center
Michigan State University
East Lansing, Michigan 48823

Name of person completing questionnaire:

_____

Title or Official Position: _____

Address of State Agency: _____

_____

IT WOULD BE APPRECIATED IF YOU WOULD ENCLOSE COPIES OF THE FORMS AND/OR MATERIALS WHICH ARE REQUESTED, TO HELP ME BETTER UNDERSTAND YOUR PROGRAM. I WOULD APPRECIATE RECEIVING, UNDER SEPARATE COVER, ANY ADDITIONAL MATERIAL TOO BULKY TO ENCLOSE.

ADMINISTRATIVE PROCEDURES

	CURRENT PRACTICES	RECOMMENDED PRACTICES
1. Does the state department have official printed policies covering job descriptions for drivers transporting handicapped students? If yes, please enclose a copy of your form.	Y N	Y N
2. Does your state policy for drivers transporting handicapped students include the following?		
a. Character?	Y N	Y N
b. Mental ability?	Y N	Y N
c. Health?	Y N	Y N
d. Physical and visual abilities?	Y N	Y N
e. Emotional stability?	Y N	Y N
f. Personal appearance?	Y N	Y N
Please state any other personal qualities that you would recommend. _____		
3. Does your state policy provide an evaluation of drivers transporting handicapped students by use of the following procedures?		
a. Physical examinations?	Y N	Y N
b. Personal references?	Y N	Y N
c. Personal interviews?	Y N	Y N
d. Personality inventory?	Y N	Y N
e. A periodic Driving test?	Y N	Y N
f. Other: specify _____		
4. Does your state department require any pre-service instruction (classroom or in-the-bus) before the applicant starts driving the bus? If yes, how many hours of instruction does he receive? _____ What kind of instruction does he receive? _____	Y N	Y N
5. Does your state provide in-service instruction for drivers transporting handicapped students?	Y N	Y N
If yes, does the driver receive this in-service instruction every year?	Y N	Y N
If not yearly, how many hours of instruction does he receive? ___		
6. Does your state require the basic Red Cross First Aid Course for all drivers? If question #6 is no, skip question #7.	Y N	Y N
7. Does your state require drivers transporting handicapped students to take the Advanced Red Cross First Aid Course?	Y N	Y N
8. Does your state require all drivers to take the National Safety Council's Driver Improvement or Defensive Driving Course?	Y N	Y N
9. Does your state have an administrative guide, (manual) to provide the driver with the basic knowledge of pupil transportation? If question #9 is no, skip question #10.	Y N	Y N

	CURRENT PRACTICES	RECOMMENDED PRACTICES
10. Does the guide have a unit or section pertaining to the handicapped student?	Y N	Y N
11. Does your state permit handicapped students to be transported by regular school buses?	Y N	Y N
If yes, are there any problems mixing students?	Y N	Y N
Please list some of the problems. _____		
12. What is the total number of handicapped (physically, mentally and emotionally disturbed) students transported in your state?	(estimate)	
13. How many drivers are hired specifically to transport handicapped students in your state?	(estimate)	
14. How many vehicles are used specifically to transport handicapped students in your state?	(estimate)	
15. Does your state cooperate with the state licensing agency to establish school bus operator qualifications?	Y N	Y N
16. Does the state licensing agency require the applicant to pass, in addition to the regular written test, supplemental questions dealing with information required to properly operate a school vehicle?	Y N	Y N
17. Does your state require on-road tests for a license to operate school vehicles?	Y N	Y N
If yes, is the test given in the bus the driver will use or of equivalent size?	Y N	Y N
18. Does your state provide certification to all drivers who have successfully completed all courses of instruction to meet the standards set by the state department of education?	Y N	Y N
-- SELECTION OF DRIVERS --		
19. Do all new applicants complete an application form when applying for employment?	Y N	Y N
If yes, please enclose a copy of your form.		
20. Does your state require the following information in addition to the basic application?	Y N	Y N
a. Personal application?	Y N	Y N
b. A check of the applicant's driving record?	Y N	Y N
c. Fingerprint check?	Y N	Y N
d. Other: specify _____		
21. Does your state require each school bus driver applicant to pass a medical examination before being employed to transport handicapped students?	Y N	Y N
If yes, please enclose the form used. (Example -- A.M.A. Medical Form)		

	CURRENT PRACTICES	RECOMMENDED PRACTICES
22. Does your state require each school bus driver applicant to pass a visual examination before being employed to transport handicapped students?	Y N	Y N
23. May the visual examination in your state be performed by either a licensed physician or a licensed optometrist?	Y N	Y N
24. Does your state require a tuberculosis test?	Y N	Y N
If yes, check -- X-ray _____; Tuberculin test _____		
25. Does your state require all medical examinations to be performed by licensed physicians?	Y N	Y N
26. Does the medical form used by your state require the physician to certify that the driver is medically qualified to transport students?	Y N	Y N
If yes, are the medical requirements different for drivers transporting handicapped students?	Y N	Y N

27. Who is expected to defray the cost of the driver applicant medical examination in your state? _____

28. After the initial medical and visual examination, how often does the driver report for re-examination? (Please check)

Physical:		Visual:	
One year	_____	One year	_____
Two years	_____	Two years	_____
Other	_____	Other	_____

29. What are the age limits for drivers transporting handicapped students in your state?
Minimum _____ Maximum _____

30. Would you suggest a change in the age limits? Y N
If yes, what change? _____

_____

Why the change? _____

_____

-- INSTRUCTIONAL PROGRAMS --

31. Does your state use qualified instructors to prepare drivers transporting students to and from school? Y N Y N
If yes, please list the standards that your state has adopted for qualified instructors. (Please enclose any materials)

_____

_____

	CURRENT PRACTICES	RECOMMENDED PRACTICES
32. Who is responsible for the preparation and training of drivers transporting handicapped students in your state?		
a. State Department of Education?	Y N	Y N
b. Local school system?	Y N	Y N
c. Other: specify _____		
33. Does your state require the preparation of drivers transporting handicapped students in the following areas?		
a. Classroom instruction?	Y N	Y N
b. In-the-bus road instruction?	Y N	Y N
c. An understanding of the problems that handicapped students meet each day.	Y N	Y N
Please list any other recommendations that you feel are important: _____		
34. Are the following areas included in the classroom phase of instructions?		
a. Driving laws and regulations?	Y N	Y N
b. School vehicle operating procedures?	Y N	Y N
c. Natural laws and their effects on control?	Y N	Y N
d. Use of special equipment for the handicapped student?	Y N	Y N
e. Loading and unloading handicapped students?	Y N	Y N
f. Emergency procedures for all students?	Y N	Y N
g. Completion of reports, including accident reporting procedures?	Y N	Y N
35. How many hours of classroom instruction does your state require for school bus drivers? _____		
36. Does your state require additional classroom instruction for drivers transporting handicapped students?	Y N	Y N
37. How many hours within this instruction are devoted to transporting handicapped students? _____		
38. Are the following areas included in the behind-the-wheel (bus) phase of instruction?		
a. Basic school bus operating procedures?	Y N	Y N
b. Driving conditions the driver will encounter? (Example--rural, mountain, ice)	Y N	Y N
c. Loading and unloading procedures with use of equipment to aid the handicapped?	Y N	Y N
d. Emergency procedures?	Y N	Y N
39. How many hours of in-the-bus road instruction does your state require for school bus drivers? _____		
40. Does your state require additional in-the-bus road instruction for drivers transporting handicapped students?	Y N	Y N
41. How many hours within this instruction are devoted to transporting handicapped students? _____ What kind of instruction is covered? _____		

(Please enclose any materials used for above)

	CURRENT PRACTICES	RECOMMENDED PRACTICES
42. Does your state require emergency evacuation drills on all vehicles transporting handicapped students? If yes, how many times during the year? _____ Please list any other recommendations that should be adopted in emergency evacuation drills. _____	Y N	Y N
43. Does your state require all drivers to successfully complete a final examination at the end of the course?	Y N	Y N
44. Does your state require the driver to take a road test at the completion of the course in the vehicle used for transporting handicapped students, or one of equivalent size? If yes, please enclose road test form and other materials used in the program.	Y N	Y N

-- VEHICLE AND EQUIPMENT --

45. Does your state have minimum standards with respect to vehicles constructed or modified for transportation of handicapped students? (8 to 23 passengers)	Y N	Y N
46. Please check the type of vehicle(s) used in your state for transporting handicapped students: a. Compact buses _____ b. Carry-all _____ c. Station wagons _____ d. Regular school bus _____ e. Other: specify _____		
47. Does your state require all vehicles (with the exception of station wagons) to be painted National School Bus Glossy-Chrome Yellow for transporting handicapped students?	Y N	Y N
48. Does your state require a special door opening on the right side of the carry-all, no less than 48 inches in width?	Y N	Y N
49. Do all ramps used for loading and unloading students require sufficient strength and rigidity to support a wheel chair, occupant and attendant?	Y N	Y N
50. Is all power lift equipment required to be of sufficient capacity to lift a wheel chair and the occupant?	Y N	Y N
51. Does your state require all special equipment to be constructed of sufficient strength and rigidity to support the handicapped student?	Y N	Y N
52. Does your state require vehicles carrying handicapped students to have two-way radios? If yes, Skip question #53.	Y N	Y N

	CURRENT PRACTICES	RECOMMENDED PRACTICES
53. Are any vehicles carrying handicapped students equipped with two-way radios?	Y N	Y N
54. Does your state require vehicles carrying handicapped students to use restraining devices whenever the vehicle is in motion?	Y N	Y N

55. How often does your state require inspection of school vehicles transporting handicapped students? (Please check)
    a. No special requirement _____
    b. Annual _____
    c. Semi-annual _____
    d. Other: specify _____

56. Is this inspection different from regular school bus inspections? Y N
    If yes, how is it different?

    _____

    _____

(Please enclose any forms used for inspection)

"A SURVEY TO IDENTIFY CURRENT AND RECOMMENDED PRACTICES IN THE TRANSPORTATION OF HANDICAPPED STUDENTS"

School System Questionnaire

A series of responses concerning the bus program in your school system are requested. Most questions are applicable to those drivers transporting mentally, physically, and emotionally handicapped students. Please circle the letter (Y) YES or (N) NO for the Current Practices in your school system. Under the column Recommended Practices circle the (Y) YES or (N) NO response that you think should or should not be a recommended practice for a school system. All other questions should be completed as specified. This survey questionnaire is planned to take approximately 12 minutes to complete.

Please return the completed questionnaire in the self-addressed, stamped envelope to:

Daniel E. Della-Giustina
Room 72, Kellogg Center
Michigan State University
East Lansing, Michigan 48823

Name of person completing questionnaire:

_____

Title or Official Position: _____

Address of School System _____

_____

IT WOULD BE APPRECIATED IF YOU WOULD ENCLOSE COPIES OF THE FORMS AND/OR MATERIALS WHICH ARE REQUESTED, TO HELP ME BETTER UNDERSTAND YOUR PROGRAM. I WOULD APPRECIATE RECEIVING, UNDER SEPARATE COVER, ANY ADDITIONAL MATERIAL TOO BULKY TO ENCLOSE.

ADMINISTRATIVE PROCEDURES

	CURRENT PRACTICES	RECOMMENDED PRACTICES
1. Does your school system have official printed policies covering job descriptions for drivers transporting handicapped students? If yes, please enclose a copy of your form.	Y N	Y N
2. Does your school policy for drivers transporting handicapped students include the following?		
a. Character?	Y N	Y N
b. Mental Ability?	Y N	Y N
c. Health?	Y N	Y N
d. Physical and visual abilities?	Y N	Y N
e. Emotional stability?	Y N	Y N
f. Personal appearance?	Y N	Y N
Please state any other personal qualities that you would recommend. _____		
3. Does your school policy provide an evaluation of drivers transporting handicapped students by use of the following procedures:		
a. Physical examination?	Y N	Y N
b. Personal references?	Y N	Y N
c. Personal interviews?	Y N	Y N
d. Personality inventory?	Y N	Y N
e. A periodic driving test?	Y N	Y N
f. Other: specify _____		
4. Does your school system require any pre-service instruction (classroom or in-the-bus) before the applicant starts driving the bus? If yes, how many hours of instruction does he receive? _____ What kind of instruction does he receive? _____	Y N	Y N
5. Does your school system provide in-service instruction for drivers transporting handicapped students?	Y N	Y N
If yes, does the driver receive this in-service instruction every year?	Y N	Y N
If not yearly, how many hours of instruction does he receive?___		
6. Does your school system require the basic Red Cross First Aid Course for all drivers? If question #6 is no, skip question #7.	Y N	Y N
7. Does your school system require drivers transporting handicapped students to take the Advanced Red Cross First Aid Course?	Y N	Y N
8. Does your school system require all drivers to take the National Safety Council's Driver Improvement or Defensive Driving Course?	Y N	Y N

	CURRENT PRACTICES	RECOMMENDED PRACTICES
9. Does your school system have an administrative guide, (manual) to provide the driver with the basic knowledge of pupil transportation? If question #9 is no, skip question #10.	Y N	Y N
10. Does the guide have a unit or section pertaining to the handicapped student?	Y N	Y N
11. Does your school system permit handicapped students to be transported by regular school buses?	Y N	Y N
If yes, are there any problems mixing students?	Y N	
Please list some of the problems: _____		
_____		
12. What is the total number of handicapped (physically, mentally and emotionally disturbed) students transported in your school system?	_____ (estimate)	
13. How many drivers are hired specifically to transport handicapped students in your school system?	_____ (estimate)	
14. How many vehicles are used specifically to transport handicapped students in your school system?	_____ (estimate)	
-- SELECTION OF DRIVERS --		
15. Do all new applicants complete an application form when applying for employment?	Y N	Y N
If yes, please enclose a copy of your form.		
16. Does your school system require the following information in addition to the basic application:		
a. Personal references?	Y N	Y N
b. A check of the applicant's driving record?	Y N	Y N
c. Fingerprint check?	Y N	Y N
d. Other: specify _____		
17. Does your school department require each school bus driver applicant to pass a medical examination before being employed to transport handicapped students?	Y N	Y N
If yes, please enclose the form used. (Example--A.M.A. Medical Form)		
18. Does your school system require each school bus driver applicant to pass a visual examination before being employed to transport handicapped students?	Y N	Y N
19. May the visual examination in your school system be performed by either a licensed physician or a licensed optometrist?	Y N	Y N

	CURRENT PRACTICES	RECOMMENDED PRACTICES
20. Does your school system require a tuberculosis test? If yes, check -- X-ray _____; Tuberculin test _____	Y N	Y N
21. Does your school system require all medical examinations to be performed by licensed physicians?	Y N	Y N
22. Does the medical form used by your school system require the physician to certify that the driver is medically qualified to transport students?	Y N	Y N
If yes, are the medical requirements different for drivers transporting handicapped students?	Y N	Y N

23. Who is expected to defray the cost of the driver applicant medical examination in your school system? _____

24. After the initial medical and visual examination, how often does the driver report for re-examination? (Please check)

Physical:		Visual:	
one year	_____	one year	_____
two years	_____	two years	_____
other	_____	other	_____

25. What are the age limits for drivers transporting handicapped students in your school system:
Minimum _____ Maximum _____

26. Would you suggest a change in the age limits? Y N
If yes, what change? _____

_____

Why the change? _____

_____

-- INSTRUCTIONAL PROGRAMS --

27. Does your school system use qualified instructors to prepare drivers transporting students to and from school?	Y N	Y N
If yes, please list the standards that your school system has adopted for qualified instructors. (Please enclose any materials)		

_____

_____

28. Who is responsible for the preparation and training of drivers transporting handicapped students in your school system?		
a. State Department of Education?	Y N	Y N
b. Local school system?	Y N	Y N
c. Other: specify _____		

	CURRENT PRACTICES	RECOMMENDED PRACTICES
29. Does your school system require the preparation of drivers transporting handicapped students in the following areas:		
a. Classroom instruction?	Y N	Y N
b. In-the-bus road instruction?	Y N	Y N
c. An understanding of the problems that handicapped students meet each day.	Y N	Y N
Please list any other recommendations that you feel are important: _____		
30. Are the following areas included in the classroom phase of instruction:		
a. Driving laws and regulations?	Y N	Y N
b. School vehicle operating procedures?	Y N	Y N
c. Natural laws and their effects on control?	Y N	Y N
d. Use of special equipment for the handicapped student?	Y N	Y N
e. Loading and unloading handicapped students?	Y N	Y N
f. Emergency procedures for all students?	Y N	Y N
g. Completion of reports, including accident reporting procedures?	Y N	Y N
31. How many hours of classroom instruction does your school system require for school bus drivers? _____		
32. Does your school system require additional classroom instruction for drivers transporting handicapped students?	Y N	Y N
33. How many hours within this instruction are devoted to transporting handicapped students? _____		
34. Are the following areas included in the behind-the-wheel (bus) phase of instruction:		
a. Basic school bus operating procedures?	Y N	Y N
b. Driving conditions the driver will encounter? (Example--rural, mountain, ice)	Y N	Y N
c. Loading and unloading procedures with use of equipment to aid the handicapped?	Y N	Y N
d. Emergency procedures?	Y N	Y N
35. How many hours of in-the-bus road instruction does your school system require for school bus drivers? _____		
36. Does your school system require additional in-the-bus road instruction for drivers transporting handicapped students?	Y N	Y N
37. How many hours within this instruction are devoted to transporting handicapped students? _____ What kind of instruction is covered? _____		

(Please enclose any materials used for above)

	CURRENT PRACTICES	RECOMMENDED PRACTICES
38. Does your school system require emergency evacuation drills on all vehicles transporting handicapped students? If yes, how many times during the year? _____ Please list any other recommendations that should be adopted in emergency evacuation drills. _____	Y N	Y N
39. Does your school system require all drivers to successfully complete a final examination at the end of the course?	Y N	Y N
40. Does your school system require the driver to take a road test at the completion of the course in the vehicle used for transporting handicapped students, or one of equivalent size? If yes, please enclose road test form and other materials used in the program.	Y N	Y N

-- VEHICLE AND EQUIPMENT --

41. Does your school system have minimum standards with respect to vehicles constructed or modified for transportation of handicapped students? (8 to 23 passengers)	Y N	Y N
42. Please check the type of vehicle(s) used in your school system for transporting handicapped students: a. Compact buses _____ b. Carry-all _____ c. Station wagons _____ d. Regular school bus _____ e. Other: specify _____		
43. Does your school system require all vehicles (with the exception of station wagons) to be painted National School Bus Glossy-Chrome Yellow for transporting handicapped students?	Y N	Y N
44. Does your school system require a special door opening on the right side of the carry-all, no less than 48 inches in width?	Y N	Y N
45. Do all ramps used for loading and unloading students require sufficient strength and rigidity to support a wheel chair, occupant and attendant?	Y N	Y N
46. Is all power lift equipment required to be of sufficient capacity to lift a wheel chair and the occupant?	Y N	Y N
47. Does your school system require all special equipment to be constructed of sufficient strength and rigidity to support the handicapped student?	Y N	Y N

	CURRENT PRACTICES	RECOMMENDED PRACTICES
48. Does your school system require vehicles carrying handicapped students to have two-way radios? If yes, skip question #49.	Y N	Y N
49. Are any vehicles carrying handicapped students equipped with two-way radios?	Y N	Y N
50. Does your school system require vehicles carrying handicapped students to use restraining devices whenever the vehicle is in motion?	Y N	Y N

51. How often does your school system require inspection of school vehicles transporting handicapped students? (Please check)
    a. No special requirement _____
    b. Annual _____
    c. Semi-annual _____
    d. Other: specify _____

52. Is this inspection different from regular school bus inspections? Y N
    If yes, how is it different?

    _____

    _____

APPENDIX C

LETTERS SENT TO STATE DEPARTMENTS OF EDUCATION AND TO RANDOMLY SELECTED SCHOOL SYSTEMS

APPENDIX C

Handicap Transportation Survey

January 9, 1973

Dear Sir:

As a part of my doctoral studies at Michigan State University, East Lansing, Michigan, I am attempting to identify the current and recommended practices in the transportation of handicapped students in your state. If you will take a few minutes from your busy schedule to complete the enclosed questionnaire it will be greatly appreciated.

The questionnaire is concerned with the administration, selection and education of drivers transporting handicapped students to and from school. Kindly answer each question pertaining to your state's program in pupil transportation.

Your cooperation and response hopefully will provide the necessary data to eventually improve upon current programs. I will be happy to forward to you an abstract of the study when it is completed. Enclosed please find a self-addressed, stamped envelope for returning the completed questionnaire.

Sincerely yours,

Daniel E. Della-Giustina

Danniel E. Della-Giustina
Graduate Assistant
Room 72 - Kellogg Center
Michigan State University
East Lansing, Michigan 48823

Handicap Transportation Survey

January 9, 1973

Dear Sir:

As part of my doctoral studies at Michigan State University, East Lansing, Michigan, I am attempting to identify the current and recommended practices in the transportation of handicapped students in your school system. If you will take a few minutes from your busy schedule to complete the enclosed questionnaire it will be greatly appreciated.

The questionnaire is concerned with the administration, selection and education of drivers transporting handicapped students to and from school. Kindly answer each question pertaining to your school system's program in pupil transportation.

Your cooperation and response hopefully will provide the necessary data to eventually improve upon current programs. I will be happy to forward to you an abstract of the study when it is completed. Enclosed please find a self-addressed, stamped envelope for returning the completed questionnaire.

Sincerely yours,

Daniel E. Della-Giustina

Daniel E. Della-Giustina
Graduate Assistant
Room 72 - Kellogg Center
Michigan State University
East Lansing, Michigan 48823

APPENDIX D

QUESTIONNAIRE RESPONDENTS FROM STATE DEPARTMENTS OF EDUCATION

APPENDIX D

Mr. Lewis McGee, Consultant
School Transportation
State Dept. of Education
Montgomery, Alabama 36104

J. L. Eidson
Supervisor of School Trans.
State Dept. of Education
Little Rock, Arkansas 72201

Dr. Stanley McDougall
Field Representative of
Pupil Transportation
State Dept. of Education
Sacramento, California 95814

Dr. James Naughton, Consultant
Transportation
State Dept. of Education
P.O. Box 2219
Hartford, Connecticut 06115

John F. Dial, Jr., Administrator
School Transportation
State Dept. of Education
Tallahassee, Florida 32304

Henry Imanaka
State Program Administrator
Student Transportation
State Dept. of Education
1037 S. Beretania Street
Honolulu, Hawaii 96804

Ralph L. Sarto
Director, Pupil Transportation
Office of the Superintendent
of Public Instruction
316 South 2nd Street
Springfield, Illinois 62702

Jack L. Summe, Consultant
Sch. Traffic Safety Educ. Div.
State Dept. of Public Instr.
Indianapolis, Indiana 46204

Arthur Roberts, Director
Transportation Division
State Dept. of Public Instr.
Grimes State Office Building
Des Moines, Iowa 50319

Harold Pellegrino, Asst. Director
of Highway Safety
Kansas Highway Comm.
Topeka, Kansas 66612

Paul E. Jones, Assistant Director
Division of Pupil Trans.
State Dept. of Education
Frankfort, Kentucky 40601

Louis J. Michot, Supervisor
School Transportation
State Dept. of Education
Baton Rouge, Louisiana 70804

Robert Hasenfus, Consultant
Pupil Transportation
State Dept. of Education
Augusta, Maine 04330

Bennie C. Hartman, Specialist
in Transportation
State Dept. of Education
P.O. Box 8717
Baltimore, Maryland 21240

George J. Collins
Assistant Commissioner
School Facilities and Related
Services
State Dept. of Education
Boston, Massachusetts 02116

Harold B. Wagner, Supervisor
Pupil Transportation Section
State Dept. of Education
Lansing, Michigan 48902

George W. Blin, Assistant Director
of Transportation
State Dept. of Education
400 Centennial Building
St. Paul, Minnesota 55101

Walter L. Corban, Assistant Supervisor
Pupil Transportation
P.O. Box 771
State Dept. of Education
Jackson, Mississippi 39205

Wayne F. Haefer
Pupil Transportation Supervisor
Office of the Supt. of Public
Instruction
Helena, Montana 59601

James H. Menath, Director of
Logistical Support Services
Branch
State Dept. of Education
Carson City, Nevada 89701

Orville G. Parrish, Director
Bureau of Transportation
State Department of Education
225 W. State Street
Trenton, New Jersey 08625

C.B. Lemon, Director
School Transportation
State Dept. of Education
Santa Fe, New Mexico 87501

Delphos S. Dark, Director of
Transportation
State Board of Education
State Dept. of Public Instruction
Raleigh, North Carolina 27603

Donald Day, Consultant
Administrative Services
State Dept. of Education
410 State House Annex
Concord, New Hampshire 03301

Richard R. Ahola, Associate
Bureau of Special School
Business Management Services
State Dept. of Education
Albany, New York 12224

J.T. Carlson, Director
School Transportation
State Dept. of Public Instr.
1708 Eighth Street
Bismarck, North Dakota 58501

Hanford L. Combs, Chief
Pupil Transportation
State Department of Education
65 S. Front Street
Columbus, Ohio 43215

Frank Duke, Administrator
Transportation
State Dept. of Education
Oklahoma City, Oklahoma 73105

Jack Sperr, Director of
Transportation
Oregon Board of Education
Salem, Oregon 97310

John F. McElhany, Chief
Division of Transportation
Bureau of School Administrative Services
State Department of Public Instruction
Harrisburg, Pennsylvania 17123

Ralph M. Hendrix, Director
Schoolhouse Building
Planning and Transport
State Department of Education
Rutledge Building
Columbia, South Carolina 29201

Elwin R. Schmidt, Consultant
School Transportation
State Department of Public Instr.
Pierre, South Dakota 57501

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Pupil Transportation
State Department of Education
Cordell Hull Building
Nashville, Tennessee 37219

Duane Carr
Statistical Analyst and Transportation
State Board of Education
1400 University Club Building
136 East South Temple
Salt Lake City, Utah 84111

Edward L. Ryan, Chief
Education Field Service
State Dept. of Education
State Office Building
Montpelier, Vermont 05602

R.A. Bynum
Supervisor of Pupil Trans.
State Board of Education
Richmond, Virginia 23216

Lewis Bloom, Consultant for Facilities and Transportation
Office of the State Superintendent of Public Instr.
Olympia, Washington 98501

Charles H. Keehan, State Director of Driver Education and Transportation
State Dept. of Education
Charleston, West Virginia 25305

Del A. Kobs
Pupil Transportation Supervisor
State Dept. of Public Instr.
126 Langdon Street
Madison, Wisconsin 53701

APPENDIX E

LETTERS SENT TO MEMBERS OF THE ADVISORY GROUP

APPENDIX E

March 8, 1973

Dear:

As part of my doctoral studies at Michigan State University I am conducting a research evaluation of current and recommended practices in the school transportation of handicapped students. In a recent telephone conversation, Mr. Dave Soule, United States Department of Transportation, recommended I ask you to serve as a member of a jury of experts to evaluate current practices and make recommendations for improvements in transportation methods, because of your active leadership in the area of school transportation.

In the near future the completed survey results will be mailed to you if you agree to be a member of this jury. I would like to have you make a critical evaluation of current practices, and make recommendations significant to the specific field of transporting handicapped students.

I hope, and Mr. Soule agrees, that these research results and recommendations from the jury members could lead to a better, more safe program for transportation of handicapped students on the national level.

Your cooperation will be deeply appreciated in this important study.

Sincerely,

Daniel E. Della-Giustina
Graduate Assistant
Traffic Safety Center
Michigan State University
East Lansing, Michigan 48823

Dear :

Recently I asked for your assistance in a nationwide survey to identify current and recommended practices in transporting handicapped students to and from school. As one of six members of the panel, it is hoped that you will take a few minutes from your busy schedule to complete the enclosed questionnaire pertaining to Recommended Practices.

Most questions are applicable to those drivers transporting mentally, physically, and emotionally handicapped students. Please circle the letter under the column Recommended Practices that you think should or should not be a recommended practice for a school system. Any additional comments or recommendations you can make would be deeply appreciated.

On completion of the study, I will be most happy to send you an abstract of our findings. Please return the questionnaire in the self-addressed, stamped envelope provided at your earliest convenience.

Sincerely,

Daniel E. Della-Giustina
Room 72, Kellogg Center
Michigan State University
East Lansing, MICHIGAN 48823

Enclosure

APPENDIX F

LIST OF ADVISORY GROUP MEMBERS

APPENDIX F
ADVISORY GROUP MEMBERS

David Soule
Department of Transportation
National Highway Traffic
Safety Administration
7th and D Streets, S.W.
Washington, D.C.

Floyd D. Smith, Ph.D.
Director of Transportation
Services
Oakland County Schools
2100 Pontiac Lake Road
Pontiac, Michigan

A.E. Florio, Ph.D.
Professor, Safety Education
University of Illinois
Department of Health & Safety
Education
Champaign, Illinois

Orville G. Parrish
Director of Pupil Transportation
Department of Education
225 West State Street
Trenton, New Jersey

Lilian Seymour, Chairman
Education and Information
California Association for
Neurologically Handicapped
Children
11291 McNab Street
Garden Grove, California

Thaddeus Budynikiewicz
Director, Health Physical Education & Transportation
Chicopee Public Schools
Chicopee, Massachusetts

APPENDIX G

FOLLOW-UP LETTER SENT TO STATE DEPARTMENTS OF EDUCATION AND TO RANDOMLY SELECTED SCHOOL SYSTEMS

APPENDIX G

Handicap Transportation Survey

February 17, 1973

Dear Sir:

A few weeks ago I mailed you a questionnaire requesting your aid in a survey to determine the current and recommended practices for transporting handicapped students to and from school.

This request may have come at a time when you were extremely busy and thus unable to complete the questionnaire. Your answers will have significant bearing on the outcome of the study. I have enclosed another questionnaire in case you may have failed to receive or misplaced the one previously mailed. I have also included a self-addressed, stamped envelope for returning the completed questionnaire.

I will be happy to send you a copy of the results if you would so indicate on your questionnaire when you return it.

Thank you for your consideration.

Respectfully,

Daniel E. Della-Giustina

Daniel E. Della-Giustina
Graduate Assistant
Room 72 - Kellogg Center
Michigan State University
East Lansing, Michigan 48823

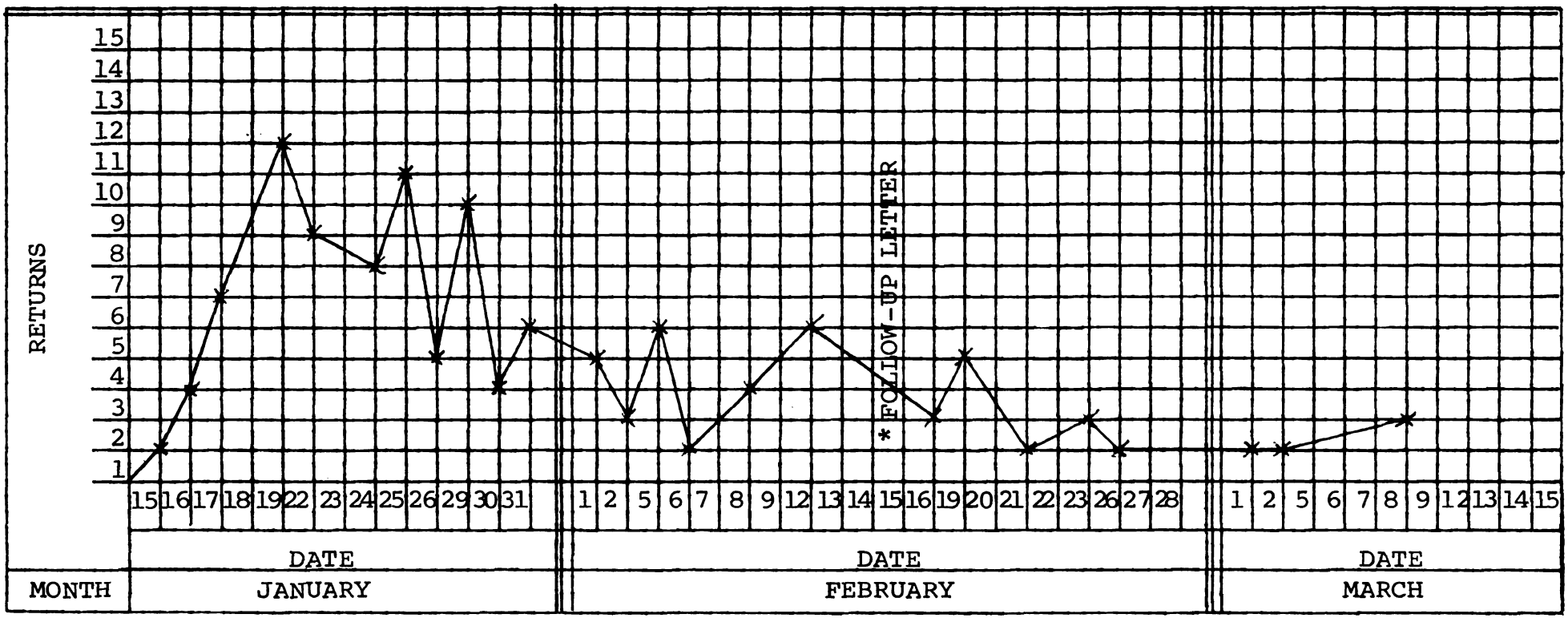
APPENDIX H

A GRAPH SHOWING RETURNS OF QUESTIONNAIRE

APPENDIX H

1973

QUESTIONNAIRE RETURN GRAPH



Total returns for January = 66
Total returns for February = 30
Total returns for March = 4
TOTAL 100

* Total returns submitted before follow-up letter = 86

APPENDIX I

QUESTIONNAIRE RESPONDENTS FROM RANDOMLY SELECTED SCHOOL SYSTEMS

APPENDIX I

Randomly Selected School Systems

Alabama

a) Margaret P. Vann
210 Wilson Street, N.E.
Decatur, Alabama 35601

b) Silas B. Cross, Asst. Superintendent
Board of Education, Box 128
Huntsville, Alabama 35801

Alaska

a) Charles R. Clark, Dir. of Instruction
North Star Borough School District
P. O. Box 1250
Fairbanks, Alaska

Arizona

a) Dr. David Lloyd, Exec. Dir. Pupil Research
39 South Hibbert
District 4
Mesa, Arisona 85201

b) William Gillin, Asst. Supt.
District 1 High School Dist. 20
701 N. Kendrick
Flagstaff, Arizona 86001

Arkansas

a) Clarence Geis, Superintendent
1300 S. Church Street
Jonesboro, Arkansas 72403

b) Chris D. Corbin, Superintendent
3205 Jenny Lind Road
Fort Smith, Arkansas 72901

California

a) Don McIntosh, Director of
Transportation
Mt. Diablo Unified Dist.
2300 Bisso Lane
Concord, California 94520

b) Dr. Anita Mitchell, Director of
Research & Pupil Services
Culver City Unified D.
4034 Irving Place
Culver City, California 90230

Colorado

a) I. K. Boltz, District Superintendent
Poudre School Dist.
2407 LaPorte Avenue
Fort Collins, Colorado 80521

b) Ivan Leck, Bus Foreman
Adams-Arapahoe S.D. #28J
1085 Peoria Street
Aurora, Colorado 80010

Connecticut

a) Michael J. Bohara, Assistant
Superintendent
Court House
Norwich, Conn. 06360

b) A. M. Bookmiller, Director of
Business Affairs
Greenwich Public Schools
Havemeyer Bldg., P. O. Box 292
Greenwich, Conn. 06830

Delaware

a) John G. Parres, Director of
Research & Planning
Wilmington, Del. 19801

Florida

a) H. H. Stewart, Director of
Bus Routes
Box 391
Bartow, Florida 33830
(Polk County Superintendent)

b) James A. Hightower, Director of
Transportation
2418 Hatton Street
Sarasota, Florida 33577
(Sarasota County Superintendent)

Georgia

a) Julius Gholson
Bibb County School District
2064 Vineville Avenue
Macon, Georgia 31204

Idaho

a) Darrel Deide, Assistant Superintendent
Caldwell School District #132
415 South Kimball
Caldwell, Idaho 83605

Illinois

a) Dr. Mary Laker, Director of Special
Education
District 186
444 West Reynolds
Springfield, Illinois 62702

Indiana

a) William J. Hamrick, Assistant
Superintendent for Instruction
Vigo County School Corporation
667 Walnut Street
Terre Haute, Indiana 47801

Iowa

a) G. R. Gardiner, Director of Physical Operations
Sioux City Comm. Dist.
1221 Pierce
Sioux City, Iowa 51105

b) Duane B. Payer, Business Manager
Centerville Comm. Sch. Dist.
Box 323
Centerville, Iowa 52544

Kansas

a) Don B. Barnes, Adm. Asst. for Tranportation
Pitt. Crawford Unfd. Dist 250
1310 N. Broadway
Pittsburg, Kansas

b) W. J. Green, Director of Special Education
Topeka Shawnee Unfd. Dist. 501
415 W. 8th Street
Topeka, Kansas 66603

Kentucky

a) James C. Hilliard
Owensboro Ind. Dist
620 Walnut Street
Owensboro, Kentucky 42301

Louisiana

a) Thomas E. Bicham, Supervisor of Transportation
Iberville Parish Schools
P. O. Box 151
Plaquemine, Louisiana 70764

b) Ralph Butler, Director of Transportation
Caddo Parish Schools
501 Courthouse, P. O. Box 37000
Shreveport, Louisiana 71101

Maine

a) Joseph Deschenes
Superintendent Lewiston Schools
Lewiston, Maine 04240

b) Frank Schmidt, Superintendent of
Special Education
Portland Public Schools
Rm. 306, City Hall
Portland, Maine 04111

Maryland

a) Anthony R. Miller, Superintendent of
Transportation
Prince George's County Schools
Upper Marlboro, Maryland 20870

b) William P. Kerns, Supervisor of
Transportation
Ann Arundel Public Schools
Rt. 5., Box 160
Arnold, Maryland 21012

Massachusetts

a) Joseph H. Gurlo, Supervisor of
Attendance & Transportation
Chicopee H. S. - 650 Front Street
Chicopee, Mass. 01013

b) Wilbur F. Parry Sr., Transportation
Coordinator
49 Lexington Street
Framingham, Mass. 01701

Michigan

a) Robert C. Bursian, Director of
Transportation
Public Schools
Miliken & Eastern
Traverse City, Michigan 49684

b) Karl Lutz, Supervisor of Transportation
1220 Howard Street
Kalamazoo, Michigan 49008

Minnesota

a) Robert H. Norman, Superintendent
of Schools
Ind. Sch. Dist. N - 656
315 N.W. 4th Avenue
Faribault, Minn. 55021

b) Ray King, Adm. of Buildings &
Transport
Ind. Sch. Dist - 623
1251 W. Co. Rd B-2
Roseville, Minn. 55113

Mississippi

a) Curtis G. Summerlin, Director
of Research
P. O. Box 2338
Jackson, Miss. 39205

Missouri

a) Dr. J. E. Kulenski
940 N. Jefferson
Springfield, Missouri 65802

Montana

a) Jerry D. O'Reilly, Supervisor
of Transportation
P. O. Box 2669
1100 4th Street S.
Great Falls, Montana 59403

b) Oliver L. Holo
Thompson Falls
Montana 59873

Nebraska

a) Jack G. Elliott
Superintendent of Schools
North Platte, Nebraska 69101

Nevada

a) Dr. G. P. Killian, Director
of Research & Development
Washoe County
425 East 9th Street
Reno, Nevada 89502

New Hampshire

a) Harry S. Tentas, Attendance
& Transportation Officer
Manchester Union 37
88 Lowell Street
Manchester, N. H. 03104

b) Frederick C. Walker
Municipal Building
Dover Union 11
Dover, N. H. 03820

New Jersey

a) Lillard E. Law
Westfield School District
305 Elm Street
Westfield, N. J. 07090

New Mexico

a) Louis McDonald, Coordinator
of Special Education
Roswell, New Mexico 88201

b) Gene Sheward, Director of
Transportation
Las Cruces Public Schools
301 W. Amador
Las Cruces, New Mexico 88001

New York

a) Gary A. Jadwin, Administrative
Assistant
376 Butterfield Ave.
Watertown, New York 13601

b) Mrs. R. Faulhaber, Office of
Special Services
515 North Avenue
New Rochelle, New York 10801

North Carolina

a) Joel B. Long, Director of
Transportation
601 Devereaux Street
Raleigh, North Carolina 27605

b) Joseph R. Ramsey, Coordinator
of Special Education
Box 7347
Ashville, North Carolina 28807

North Dakota

a) Duane Taylor, Assistant
Superintendent
Grand Forks School System
Grand Forks, North Dakota 58201

Ohio

a) Joseph C. Casey, Director of
Driver Education
14101 Franklin Blvd.
Lakewood, Ohio 44107

b) Wayne Cunningham
Chairman, Driver Education Dept.
1710 Blue Ave.
Zanesville, Ohio 43701

Oklahoma

a) Robert Dishmuke, Director
of Transportation
753 N.W. Ft. Sill Blvd.
Lawton, Oklahoma 73501

Oregon

a) Charles Hamby, Assistant Director
of Business Affairs
Eugene Sch. Dist. #4
200 N. Monroe Street
Eugene, Oregon 97402

Pennsylvania

a) Carl R. Troxal, Transportation Supervisor
Greensburg - Salem Dist.
534 E. Pittsburgh Street
Greensburg, Penn. 15601

b) Eugene Langan
Scranton City Dist. Supt.
425 N. Washington Avenue
Scranton, Penn. 18503

Rhode Island

a) Robert Jenckes, Transportation Manager
Warwick Sch. Dist.
34 Warwick Lane Avenue
Warwick, R. I. 02889

South Carolina

a) Mrs. Barbara Bradford, Coordinator of Special Education
Columbia Dist. #1
1616 Richland Street
Columbia, S. Car. 29201

South Dakota

a) Adair Callison, Director of Pupil Services
201 E. 38th St.
Sioux Falls, So. Dakota 57102

Tennessee

a) Donald Yates
City Superintendent
Cleveland, Tenn. 37311

b) Mrs. Rebecca M. Finnd, Coordinator of Special Education
101 East 5th Ave.
Knoxville Public Schools
Knoxville, Tenn. 37917

Texas

a) Walter J. Pierpont, Director of
Transportation
Box 981
Abilene, Texas 79604

b) Arden Richardson, Director of
Special Education
Box 959
Conroe, Texas 77301

Utah

a) Roye Evani, Transportation Director
20 N. Main St.
Davis Sch. Dist.
Farmington, Utah 84025

Vermont

a) S. C. Faryniarz, Assistant
Superintendent
163 So. Willard
School Dist. #15
Burlington, Vermont 05401

b) William Evans, Director of
Pupil Personnel Services
Rutland Cent. & City Dist. 40
Rutland, Vermont 05701

Virginia

a) D. G. Trayitz, Supervisor of
Transportation
P. O. Box 15204
1021 Great Bridge Blvd.
Chesapeake, Virginia 23320

Washington

a) Russel M. Esvelt
Wenatchee Sch. Dist. #246
235 Sunset Avenue
Wenatchee, Washington 98801

Wisconsin

a) Miles T. Mitchell, Supervisor of Transportation
Madison Public Schools
545 W. Dayton
P. O. Box 2189
Madison, Wisconsin 53703

b) Carlyle Holtan, Director of Transportation
521 Westover Street
Oconomowoc, Wisconsin 53066

Wyoming

a) Marshall E. Broyles, Supervisor of Transportation
Laramie County Sch. Dist.
Dist. #1
Cheyenne, Wyoming 82001