

A STUDY OF PUPIL TRANSPORTATION
IN DICKSON COUNTY

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A STUDY OF PUPIL TRANSPORTATION
IN DICKSON COUNTY

An Abstract
Presented to
the Graduate Council of
Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Specialist in Education

by
Rodney Alvin Biter

January 1982

ABSTRACT

This study examined the pupil transportation system within Dickson County. An attempt was made to identify problems in order that improvements could be made. Special attention was given to the following areas:

Maintenance. Minimum safety requirements in many states are fearfully inadequate. The new federal safety standards for school buses will make school transportation safer, but the standards have built-in limitations. Bus manufacturers are building buses with more emphasis on improvement in safety. Preventive maintenance on all buses should be a major concern.

Budget. Tight budgets may be the reason many school boards are not purchasing better, safer buses. One way to combat a tight budget is retrofitting which means to outfit the current fleet of buses making them safer. The computer has saved money in the maintenance area of pupil transportation.

Driver Training. Only qualified drivers should be hired. They should have training in emergency procedures as well as trained in student discipline. The driver should have the authority to take any reasonable steps necessary to handle students who misbehave.

Bus Routes. Computers can be used in scheduling bus routings. Within minutes they can produce thousands of alternative routings and printouts of the most efficient ones.

After examination of this study, several problems were identified. Although some of these problems would require more funds, some could be solved with little or no additional expense.

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A Field Study
Presented to
the Graduate Council of
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In Partial Fulfillment
of the Requirements for the Degree
Educational Specialist

by
Rodney Alvin Biter
January 1982

To the Graduate Council:

I am submitting herewith a Field Study written by Rodney Alvin Biter entitled "A Study of Pupil Transportation in Dickson County." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Education Specialist, with a major in Administration and Supervision.

Allen E. Williams
Committee Chairman

We have read this field study
and recommend its acceptance:

Dwight Butler
Second Committee Member

George Rawline
Third Committee Member

Accepted for the
Graduate Council:

William H. Ellis
Dean of the Graduate School

ACKNOWLEDGEMENTS

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Chapter 1

INTRODUCTION

The Dickson County School District transportation system exists for the purpose of transporting students to and from school in as safe a manner as is humanly possible. There is a current, mutual feeling among students, parents, teachers, and school bus drivers that there are serious problems existing within the transportation system.

For the past fourteen years, this writer has been employed by the Dickson County Board of Education as a teacher and substitute bus driver. These positions provided insights into the transportation system. Association and communication with students, parents, teachers, drivers, and school administrators also provided opportunity to observe the transportation system from different points of view.

Considerable criticism has been aimed at the transportation system in recent times, especially during the preceding school year 1979-1980. The intention of this study was to determine if this criticism was justified. The investigation involved students, parents, teachers, drivers, and school administrators to identify the specific problems they felt existed within the transportation system.

Practical suggestions that could lead to changes within the transportation system was made after analysis of the research data and consideration of related literature.

Statement of the Problem

The problem explored concerning the Dickson County School District transportation system placed special emphasis on (1) maintenance, (2) bus routes, (3) driver training, and (4) student behavior on buses.

During the past decade, the Dickson County School District transportation system has grown from one of forty-five buses transporting 3,996 students to one of fifty-eight buses transporting 5,183 students daily. The budget of the transportation system has increased from \$185,679.25 in 1970 to \$485,386.00 in 1980. The total mileage traveled has increased from approximately 400,000 to 500,000 miles. Some basic problems are inherent to any transportation system. However, due to continual growing criticism in recent years, the writer felt it was worthwhile to identify some of these problems and to determine if any changes could be made to improve the transportation system. Therefore, the study was conducted to identify problems existing in the transportation system, rank the problems according to their seriousness, and to offer practical suggestions based on research data and related literature that could bring about changes in the transportation system.

The study was limited to the Dickson County School District. Furthermore, it involves only students who ride buses and parents that have students who ride buses.

This study was conducted during the year of 1980-81 school year.

Chapter 2

METHODOLOGY OF THE STUDY

An opinionnaire was used to obtain the research data used in this study (see appendix). It consisted of thirty questions. An attempt was made to include questions that would cover all phases of transportation. Also, an attempt was made to include questions that would be relevant to all of the different types of people who would be given an opinionnaire.

The opinionnaire was distributed to get a cross-section of the entire county. Teachers were used to distribute the opinionnaire to parents and students. The author distributed them to twenty-five bus drivers and fifty teachers. The only criterion imposed on students and parents is they either rode buses or had children who road buses. Also, teachers were asked to give them to students who they felt would return them. The students were given the opportunity to complete the opinionnaire in class eliminating the chance to lose or failure to return them.

The opinionnaires were distributed and the results were tabulated in five categories: students, parents, teachers, bus drivers, and total. Percentages were figured in each category on the basis of "Agree," "Disagree," and "No Opinion."

Permission to conduct this study was granted by Mr. James E. Sullivan, Superintendent of Schools, Dickson County, Charlotte, Tennessee.

Chapter 3

REVIEW OF RELATED LITERATURE

Introduction

To some educators the school bus delivering its load of excited, vibrant, eager children represents a large percentage of the education budget. To others it designates a tremendous amount of detail to schedule the routes properly. And, to a few, it is a modern version of Parnassus on wheels, spewing forth taped lessons and TV programs as the bus moves from home to school. Whatever the view, over a quarter-of-a million buses carrying more than six billion students at a cost of over \$2 billion a year represents an important part of education, one worthy of close examination.¹

Historical Development

History is vague about the starting date of formal school transportation, but we know Massachusetts in 1869 passed a law permitting the transportation of pupils at public expense. By 1920, in nearly all parts of the United States of America and Canada some pupils were being transported at public expense. The most common vehicle used to move children to and from schools during those years was called a "kid hack"--a vehicle much like an ordinary plantation wagon fitted out with a top of canvas or sailcloth and bench seats. It sold for \$80.00 to \$175.00.²

1

Robert Anderson, "Merrily We Roll Along," School Management, XVI, No. 11 (1980), 13.

2

Lverette M. Latta, "Can Anybody Remember the 'Kid Hacks'?" The American School Board Journal, CLXIII (November, 1976), L1.

Today, the "kid hacks" cost from \$12,000.00 to \$20,000.00 or more and, while improvement has been continuous, school bus safety is a primary concern of many educators, parents, and state and federal governments.

Safety

How safe is safe? Statistics show school buses are eight times safer than passenger cars. The injury rate for school buses is one injury per eight million passenger miles. The rate for automobiles is one injury per one million passenger miles. So, on the face of it, all appears well with school bus safety.³ These rates are not good enough. Statistics show that over 5,000 students are injured or killed inside of buses. And these statistics pertain only to injuries sustained when buses are involved in reported accidents. They do not include injuries occurring from sudden stops, for example. Furthermore, they do not include injuries occurring outside of the school bus.

"Approximately half of all school bus related accidents occur in the bus loading or unloading zones, and of these accidents, 86 percent of the fatalities involve elementary school children."⁴

In weighing attributes of various school buses on the market, every school board should review these statistics, and give safety topmost priority. It is the board's moral and legal obligation

3

James R. Russo, "Changes Needed in School Bus Safety," American School and University, XLVI (January, 1980), 36-38.

4

Joseph Cerico, "Found: A Cheap and Easy Way to Increase Safety at Bus Stops," The American School Board Journal, CLXIII (November, 1976), 40-41.

to protect the children entrusted to their district's care. The board, its individual members, and its employees may be held accountable for injuries or deaths resulting from a school bus accident. When accidents occur, accusing fingers are pointed and intense efforts are made to fix blame.⁵

School boards should not make the mistake of thinking all school buses are alike. They are yellow, to be sure. And, they all comply with minimum specifications; if they didn't, the manufacturers wouldn't be in business. But minimum safety requirements in many states are fearfully inadequate. Hopefully, the federal government's Standard 17 will correct this inadequacy.

Standard 17, signed into law on May 6, 1972, grants jurisdiction over all public school pupil transportation to the federal government. It is designed to improve state programs for transporting pupils safely in urban and rural areas by setting requirements for proper and safe equipment; selection, training, and supervision of drivers and maintenance personnel; and to mold administrative provisions in the world of pupil transportation.⁶

The new federal safety standards for school buses will undoubtedly help make school transportation safer, but the standards

⁵
Dudley Starr, "Quick! Tell Me How to Buy," The American School Board Journal, CLXI, No. 1 (January, 1980), 4.

⁶
David H. Soole, "A Talk With the Man Behind Standard 17," School Management, XVI, No. 11 (1980), 17.

have built-in limitations. First, they apply only to buses built after April, 1977. Second, they are minimum standards which have long since been surpassed by many major manufacturers. The third limitation is that half of the 98 children who are killed each year in bus-related accidents are killed outside the bus.⁷

Bus manufacturers are doing their part to improve safety by making the sides and roofs stronger by full length, one-piece side panels, reducing the number of panels, and double-lapping the panels for greater tensile strength. One body manufacturer ties the body to the chassis with complete wrap-around U-bolt mounting which helps prevent shifting or separation of the steel body from the chassis in the event of a crash or roll-over. In some new models, window escape openings beside each passenger seat are as much as one third larger than those in current school buses. Stronger bumpers that absorb more shock and spread it over a wider area have been developed. High-back seats, with shock-absorbing foam padding across tops and side rails, help reduce the chances of whiplash or other sudden stop injuries. Many other bus areas are being improved, such as the driver's compartment, brakes, larger windshield wipers, public address systems, light monitoring systems, and more buses are being built with power steering and brakes.⁸

⁷
Max Michellian, Jr., "School Bus Safety," American School and University, 1 (January, 1978), 40-45.

⁸
Ibid, p. 40.

Safety, according to the people who build, lease and maintain school buses, is not so much a matter of equipment as it is of the people who use it. Safety, they argue, belongs in the curriculum, and the school board can put it there. The school bus is an extension of the educational system, and if we want students to behave properly so they are safe on the bus, we should be giving them some behavioral criteria to live up to. Parents and pupils should know what is expected of them once youngsters board the school bus. Also, public awareness of safety can be the greatest deterrent to school bus accidents and student injuries. School boards can be instrumental in getting district safety supervisors to publicize bus safety regulations at the beginning of each year. The school board should see that every student rider is instructed in safe riding procedures and emergency drills.⁹

Local school boards can do more to promote transportation safety than any other group; and most of them don't. Budgets are the major excuse, and in some cases this may be all too true. However, there are several areas of safety that can be improved with very little additional expense.

A school board transportation committee should be put together and charged with investigating the school bus operation in the district. A survey of all accidents involving school buses should be

made. School boards should take an active part to ensure proper training for people who drive buses. Bus routes should be scrutinized by the school board. Preventive maintenance on all buses should be a major concern of the board. The school board should be responsible for seeing that all pupils who ride buses are thoroughly trained in bus safety procedures such as behavior in the bus, loading and unloading properly, and emergency procedures. The school board should involve parents in the safety training program and recommend that adult monitors ride the buses on a regular basis. A school board's involvement in transportation safety is unlimited; but all boards should be very active in all areas of transportation.

Other Factors

Pupil transportation can be divided into several areas, such as vehicles, budgets, scheduling, maintenance, and personnel. All are important, and must be effectively welded into a productive unit. But the single, most important contributor to the entire effort is the driver and his or her energy. The attitude and morale of countless bus drivers could be the difference between success and failure, profit and loss of the transportation system. The strength of people is awesome and tremendous, but it must be nurtured and developed.¹⁰

What type of person drives a school bus? No study conclusively pinpoints a classic profile, but some reveal school bus drivers typically represent a cross section of society--men and women, old and

young, outstanding as well as mediocre. Some are warm, productive, and proficient drivers who are important contributors to the educational system. Others are shoddy, below-average journeymen who lack morale and spirit, and cannot work with children. Their job is a lonely one. They cannot face their charges. There is no cohort to turn to when two boys start fighting, no experienced partner on whom one can rely when three girls smoke, and no witnesses when soft drink bottles are thrown at the windshield.¹¹

School boards can and must take an active part in insuring proper training for people who drive buses. Only qualified drivers should be hired, and they should be retested regularly. All drivers should have training in emergency procedures. The driver should be well schooled in student discipline. "An authoritarian bus driver may be the best solution to the problem of student misbehavior on the school bus."¹² Any driver should have the authority to take any reasonable steps he deems necessary to handle rowdy students. And, as long as he is right, he should have the complete backing of all school administrators. Student in-bus misbehavior can create a very unsafe situation.

Tight budgets get the blame as to why many school boards are not purchasing better, safer buses. This appears to be a weak excuse where child safety is concerned. In many cases, it would cost as

¹¹

Ibid.

¹²

David M. Ferguson, "And Listen To One Driver's Plea," The American School Board Journal, CLXII, No. 11 (November, 1975), 45.

little as one penny a day per pupil to purchase a much safer bus. For example, it is the school board's intention to use a bus for ten years, so if a stronger, safer bus was purchased at an added cost of \$1,000 this would break down to \$100 per year. Since there are 180 school days a year, the additional cost per day of the safer bus would be fifty-six cents. Most buses are used for at least two runs each morning and afternoon. They carry at least 120 children each day. So the added cost per pupil per day of a safer bus would be less than a penny.¹³

The use of computers in scheduling and maintenance is one method that has proven it can save tax dollars. Computers have no respect for the status quo. Ruthlessly and within minutes, they can try out thousands of alternative routings and disgorge printouts of the most efficient ones. By scanning the housing patterns of students, the locations of schools and the most direct and safest streets for bus routes, computers can help school officials trim fat from pupil transportation budgets. Computers can also give alternate routes as well as answers to many other questions.¹⁴

The details of an efficient transportation system are so many and so complex that the unaided human can't assimilate and calculate them all. Just consider the variables: student population, handicapped children, size and location of schools, weather and road conditions, and school board budgets. Because transporting children is

¹³

Ibid, p. 45.

¹⁴

Marc Salgado, "How Computerized Bus Scheduling Is Saving Money," The American School Board Journal, CLXI (November, 1980), 54.

becoming increasingly expensive and complex, many school systems have turned to professional transportation consultants. And, these consultants are increasingly depending on computers. They say a computer is essential to help a school system find the greatest number of alternatives in planning student transportation. One consultant, James Cuthbert, claims 25 to 35 percent of the \$1.7 billion spent annually on school bus transportation in this country could be saved without any loss in service by using computers and airplanes to plan bus routes. Some school districts have saved more than \$20,000 a year through the use of computers.¹⁵ School boards still have to set policies to determine what information they need from the computer.

In many school systems, the computer has saved money in the maintenance area of pupil transportation. Computers can keep and give records on gasoline and oil usage, miles per gallon, and repairs done on each bus. Records can be broken down to work done on the body and work done on the chassis of a particular vehicle, which helps pinpoint problems and helps to find solutions. Also, computers can print out monthly as well as yearly reports. These reports can help drivers drive more economically and safer.¹⁶

One piece of equipment that has proved its worth to a number of school districts is the two-way radio. There has proven to be several

¹⁵

"Invite a Computer to Schedule Your Buses and Maybe Make Life Easier, Too," The American School Board Journal, CLXIV (November, 1977), 42-43.

¹⁶

Richard Shell, "Computer Smooths Out Bumps In Bus Maintenance," Nation's Schools, XCII (November, 1980), 44.

advantages to having radio equipped buses. Safety is one. Bus mechanical failures, accidents, or traffic tie-ups can be reported immediately so that passengers receive prompt attention. Weather emergencies can be communicated to drivers, their normal schedules revised quickly, and weather related mishaps avoided. Economy is another advantage. Time, miles, and dollars can be saved when last minute bus scheduling changes have to be made. A disabled bus can get back into operation sooner if the central office or base station knows it is out of service and can dispatch necessary repair equipment. One school district credits two-way radios with a savings of \$75,000 a year. Another advantage is security. Two-way radio communication gives a school system knowledge of where buses and drivers are any time and what conditions they are facing. That information is invaluable when parents call the school demanding an explanation for a disruption in service. Also, assistance could be called for quickly in case of sickness or some other emergency. Drivers feel more secure with the radios, especially those traveling in isolated areas. The radios have helped with student control, as well as non-passenger individuals. They know the driver can get help quickly. Drivers can also help the general public by reporting accidents, road hazards, and traffic problems.¹⁷

The needs of school systems vary widely. There are two basic kinds of radio equipment: citizen band AM units and business band FM systems. Therefore, any school district planning to use a radio should seek expert advice before they purchase them. Usually, because of the many variables, a school bus communications system must be virtually custom designed.¹⁸

Another way to combat a tight budget is retrofitting. This means outfitting the current fleet of buses that will make them safer to ride and easier to drive.

Some school systems have experimented with using mass transit buses to transport students. In almost all of these cases the attempt has failed. There are several reasons. First, transit buses are the wrong color and don't have the proper lights and signs. They aren't inspected thoroughly. Usually, the transit buses are needed by the public at the same time the schools need them, especially in the morning. And, the initial cost of a transit bus is considerably more than a school bus.¹⁹

Any school system planning to use a mass transit system or to hire a local transit authority should answer some questions first. What are the real costs? Which system will be the safest and most efficient? Will the drivers control the students? What happens if the

¹⁸

Thomas A. Shannon, "School Bus Communications Equipment," The American School Board Journal, CLXV (January, 1978), 16.

¹⁹

Richard Herring, "How One School System Ignored Some Expert Advice and Sowed," The American School Board Journal, CLXII (November, 1975), L2-L3.

drivers strike? What control will the school board have over transportation? Also, upon investigation they will learn in practically every case school districts have found they could purchase and operate their own buses considerably cheaper than they could hire transit systems.

Randon Township, near Philadelphia, Pennsylvania, received a Federal grant to study the feasibility of using school buses to provide public transportation for everyone in the community. It appears this concept is more practical for schools than the one of using city transit buses. This proposal is an extension of the school district's philosophy which holds that the school buildings belong to the entire community and should be utilized to the fullest to meet community needs. Several advantages of this method have already surfaced. For example, school buses don't sit idle each day, poor and elderly people are provided transportation, and students are provided transportation for extra-curricular activities.²⁰

Summary

At the present time, it appears the major weaknesses in pupil transportation are due to a lack of proper action by local school boards. Many school boards are not doing their job properly concerning driver training and pupil instructions pertaining to safe and correct methods for loading and unloading, in-bus behavior, and emergency

procedures. Every school district should have a set policy to ensure all students receive proper safety instructions. Also, it should be the school board's duty to see that no one drives their buses who has not had training in school bus operation, student discipline, and emergency and first aid procedures. State and federal laws designed to improve pupil safety and continuous improvement by bus manufacturers are not much good if the people operating and riding in school buses do not know how to use them properly.

Chapter 4

ANALYSIS OF THE DATA

A variety of problems are inherent to any pupil transportation system and the Dickson County School District system is no exception. Some problems are more serious than others and need immediate attention. Also, some problems can be corrected without additional expenditures while some would require an increase in funds.

This study was confined to the Dickson County School District and an opinionnaire was the instrument used to identify existing problems. The opinionnaire consisted of thirty items that were selected in an attempt to cover all areas of transportation. Also, it was intended that some of the items would be relevant to all of the various people who would receive an opinionnaire. The basis for the items was the author's own experience and the reading of considerable literature related to pupil transportation.

To ensure a high percentage of the opinionnaires distributed, teachers assisted with the distribution and collection of the opinionnaires. The four teachers had twenty-five students complete an opinionnaire in class; therefore, all 100 were returned. The teachers were asked to send ten opinionnaires to parents by their students. When 93 were returned, seven more were sent out and all seven were returned. The reason for this was to make analysis simpler. The author

distributed fifty opinionnaires to teachers and twenty-five to bus drivers, all of which were returned. Table 1 shows the distribution and collection of the opinionnaire.

Table 1

DISTRIBUTION AND COLLECTION PATTERN OF OPINIONNAIRE

	Parents	Students	Teachers	Bus Drivers	Total
Distributed	107	100	50	25	282
Returned	100	100	50	25	275

The teachers selected to assist with the opinionnaire were chosen so the results would cover all areas of the county. The only criterion they were given was to see that only students who road buses and only parents who had pupils riding buses were given opinionnaires. The teachers and bus drivers who participated were selected to give a fair cross-section of the entire district. The results of the opinionnaire were tabulated in the following categories: parents, students, teachers, bus drivers, and total. The total number as well as the percentage for each item in each category is included in the appendix.

As seen in Table II, the items on the opinionnaire were grouped into categories according to the area they most nearly related to. Following are the categories used: budget and maintenance, bus drivers, routes, school zones, central office administration, students and parents.

TABLE 2

Results of Opinionnaire Showing Total Responses in Column 1
and Percentage Total in Column 2

			<u>Total and Percentage</u>						
1. My child(ren)'s school bus is in good operating condition.	A	<u>129</u>	(<u>47%</u>)	D	<u>78</u>	(<u>28%</u>)	N O	<u>68</u>	(<u>25%</u>)
2. School buses should be inspected at regular monthly intervals throughout the school year.	A	<u>252</u>	(<u>92%</u>)	D	<u>11</u>	(<u>4%</u>)	N O	<u>12</u>	(<u>4%</u>)
3. The school district should have a full-time supervisor of transportation.	A	<u>231</u>	(<u>84%</u>)	D	<u>9</u>	(<u>3%</u>)	N O	<u>35</u>	(<u>13%</u>)
4. The school district should buy better buses than those that barely meet the state minimum standards.	A	<u>231</u>	(<u>84%</u>)	D	<u>17</u>	(<u>6%</u>)	N O	<u>27</u>	(<u>10%</u>)
5. Spare buses should be kept in as good condition as a regular bus.	A	<u>262</u>	(<u>98%</u>)	D	<u>1</u>	(<u>0%</u>)	N O	<u>5</u>	(<u>2%</u>)
6. Buses should be equipped with snow tires and/or chains so schools could remain open in adverse weather.	A	<u>114</u>	(<u>41%</u>)	D	<u>105</u>	(<u>39%</u>)	N O	<u>56</u>	(<u>20%</u>)
7. Buses should be radio equipped to secure quick assistance in case of an emergency or breakdown.	A	<u>219</u>	(<u>80%</u>)	D	<u>29</u>	(<u>10%</u>)	N O	<u>27</u>	(<u>10%</u>)

8. Law officers, with radios should periodically ride buses to help control traffic around buses.	A	<u>137</u>	(<u>50%</u>)	D	<u>63</u>	(<u>23%</u>)	N O	<u>75</u>	(<u>27%</u>)
9. Immediate steps should be taken to provide a training program for all bus drivers.	A	<u>206</u>	(<u>75%</u>)	D	<u>14</u>	(<u>5%</u>)	N O	<u>55</u>	(<u>20%</u>)
10. The present driver salaries should be increased to maintain a satisfactory staff of bus drivers.	A	<u>124</u>	(<u>45%</u>)	D	<u>32</u>	(<u>11%</u>)	N O	<u>120</u>	(<u>44%</u>)
11. Substitute drivers should meet all the requirements of a regular driver.	A	<u>265</u>	(<u>96%</u>)	D	<u>2</u>	(<u>1%</u>)	N O	<u>8</u>	(<u>3%</u>)
12. Bus drivers should be required to attend clinics that test driving abilities at least once a year.	A	<u>237</u>	(<u>86%</u>)	D	<u>11</u>	(<u>4%</u>)	N O	<u>27</u>	(<u>10%</u>)
13. Bus drivers should inform parents and principals of any student who causes disturbances on a bus.	A	<u>257</u>	(<u>93%</u>)	D	<u>8</u>	(<u>3%</u>)	N O	<u>10</u>	(<u>4%</u>)
14. Bus drivers should have the authority to take whatever steps necessary to insure proper behavior on the bus.	A	<u>211</u>	(<u>77%</u>)	D	<u>38</u>	(<u>14%</u>)	N O	<u>26</u>	(<u>9%</u>)
15. Some drivers operate their buses in a reckless, unsafe manner.	A	<u>170</u>	(<u>62%</u>)	D	<u>26</u>	(<u>9%</u>)	N O	<u>79</u>	(<u>29%</u>)

16. Students who live within one and one half miles of their school should not be allowed to ride a bus.	A	<u>42</u>	(<u>15%</u>)	D	<u>191</u>	(<u>70%</u>)	N O	<u>42</u>	(<u>15%</u>)
17. No student should have to ride a bus standing up.	A	<u>253</u>	(<u>92%</u>)	D	<u>10</u>	(<u>4%</u>)	N O	<u>12</u>	(<u>4%</u>)
18. Alternate bus routes should be set up for use during adverse weather conditions, such as ice and snow.	A	<u>189</u>	(<u>69%</u>)	D	<u>49</u>	(<u>18%</u>)	N O	<u>37</u>	(<u>13%</u>)
19. Parents are properly informed about the conditions under which their child may lose the privilege of riding a bus.	A	<u>134</u>	(<u>49%</u>)	D	<u>101</u>	(<u>37%</u>)	N O	<u>40</u>	(<u>14%</u>)
20. There should be one set of behavior rules for every bus and student in the county.	A	<u>213</u>	(<u>77%</u>)	D	<u>26</u>	(<u>9%</u>)	N O	<u>36</u>	(<u>14%</u>)
21. Students are properly informed concerning their expected behavior and responsibility on a bus.	A	<u>155</u>	(<u>56%</u>)	D	<u>67</u>	(<u>24%</u>)	N O	<u>53</u>	(<u>20%</u>)
22. Any student who continually misbehaves on a bus should be removed from the bus, permanently if necessary.	A	<u>237</u>	(<u>86%</u>)	D	<u>24</u>	(<u>9%</u>)	N O	<u>14</u>	(<u>5%</u>)

23. Better communication between students, parents, school authorities, and the public could lead to a safer and more efficient transportation system.	A	<u>252</u>	(<u>92%</u>)	D	<u>3</u>	(<u>1%</u>)	N O	<u>20</u>	(<u>7%</u>)
24. Only three mechanics are needed to maintain a fleet of sixty buses.	A	<u>38</u>	(<u>7%</u>)	D	<u>169</u>	(<u>61%</u>)	N O	<u>87</u>	(<u>32%</u>)
25. Bus routes could be laid out in a more efficient manner to save time, expense, and to make bus travel safer.	A	<u>185</u>	(<u>67%</u>)	D	<u>15</u>	(<u>5%</u>)	N O	<u>75</u>	(<u>28%</u>)
26. Motorists who fail to obey a school bus's warning lights and stop signals used when loading and unloading should be issued a citation.	A	<u>268</u>	(<u>97%</u>)	D	<u>2</u>	(<u>1%</u>)	N O	<u>5</u>	(<u>2%</u>)
27. Local law officials could be more helpful on streets and highways around schools.	A	<u>225</u>	(<u>82%</u>)	D	<u>6</u>	(<u>2%</u>)	N O	<u>46</u>	(<u>16%</u>)
28. Some type of traffic patrol should be used in all school zones.	A	<u>239</u>	(<u>87%</u>)	D	<u>10</u>	(<u>4%</u>)	N O	<u>26</u>	(<u>9%</u>)
29. The practice of having many students spend one to two hours per day in a bus room at school should be changed.	A	<u>221</u>	(<u>80%</u>)	D	<u>14</u>	(<u>5%</u>)	N O	<u>40</u>	(<u>15%</u>)
30. More funds should be provided to ensure better service and maintenance of buses.	A	<u>204</u>	(<u>74%</u>)	D	<u>11</u>	(<u>4%</u>)	N O	<u>60</u>	(<u>22%</u>)

Some of the most serious problems lay in the area of budget and maintenance. A high percentage of the participants indicated better buses should be purchased, more maintenance people should be hired, buses should be inspected more often, and enough funds to ensure better equipment and service should be provided. The bus drivers are an area of major concern. The absence of adequate, continuing clinics in proper driver training is a serious problem. Other problems with drivers is their failure to maintain proper discipline on the buses and to obey all traffic rules and regulations. Most of the participants felt the routes could be improved and alternate routes should be set up for use during adverse weather conditions. The lack of proper supervision in the school zones and difficulties with public traffic are areas where a very high percentage of the participants felt there was a problem. Most of the participants felt there was a genuine need for a full-time supervisor of transportation and better communication among all the people involved with the transportation system. Student behavior in and around buses and students having to stand up while riding buses are other problems of significance.

The following examples are used to confirm the previously mentioned problems. Less than half of the parents felt their child's bus was in good operating condition. Eighty-four percent of the total felt better buses should be purchased than those that barely meet the state minimum standards. Eighty-six percent of the total indicated all drivers should attend driving clinics at least once a year. Sixty-eight percent of the bus drivers felt three mechanics were insufficient to properly

maintain the fleet of buses. Ninety-two percent of the total felt the buses should be inspected more than once a year. Seventy-one percent of the students indicated some bus drivers operate their buses in a reckless, unsafe manner. Sixty-nine percent of the total were in favor of setting up alternate routes for use during adverse weather conditions. Eighty-seven percent of the total felt some type of traffic patrol should be used in all school zones. One hundred percent of the bus drivers were in favor of a full-time supervisor of transportation. Ninety-six percent of the parents felt there was a need for better communication among all the parties involved in the transportation system. Eighty-six percent of the total felt any student who continually misbehaves should be removed from the bus, permanently if necessary. Ninety-two percent of the total indicated no student should have to ride a bus standing up.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was conducted in an attempt to identify problems within the Dickson County School District transportation system and then, based on the research and related literature, to make practical suggestions that could lead to improvements in the system. The research instrument was an opinionnaire distributed to students, parents, teachers, bus drivers, the chief of maintenance, and the supervisor of transportation.

The findings indicate serious problems do exist in the system. The most serious problems requiring immediate attention are in the areas of budget, maintenance, driver training, driver-student control, student training, and school zone patrols. The lack of central office supervision, poor routing, and inadequate communication are other problems.

Considering these findings and from the knowledge gained from the related literature, this system has problems similar to many other school districts. However, it appears little supervision is available to correct these problems.

Conclusions

After careful examination of the data, several serious problems were identified which would justify the recent criticism directed toward the transportation system. Some of these problems would

require an increase in transportation funds. However, some of the problems could be solved with little or no additional expense. Regardless, pupil safety should not have a price tag and the steps that are deemed necessary to make the system as safe as possible should be taken.

Recommendations

Based on the research and review of related literature the following recommendations are made.

1. The transportation budget should be increased for the purposes of employing more maintenance personnel and furnishing them with a proper facility for service.
2. The system needs to begin immediate participation in the state driver training program on a regular annual basis, or start an equal program of its own.
3. A program to teach students about proper loading and unloading procedures, in-bus behavior, and emergency procedures should be started immediately.
4. School zone safety patrols need to be set up and put into use.
5. A better system of communication between the schools, public, and administration should be initiated by the school board.
6. Rerouting of buses to save fuel needs to be considered.

The basic objective of this study was to identify problems. Further studies to find solutions to these problems would seem appropriate.

Also, a study concerning the pupil cost per miles traveled could prove beneficial.

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APPENDIX A

APPENDIX A

OPINIONNAIRE

- | | | | |
|------------------------------------------------------------------------------------------------------------|-------------|----------------|---------------------|
| 1. My child(ren)'s school bus is in good operating condition. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 2. School buses should be inspected at regular monthly intervals throughout the school year. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 3. The school district should have a full-time supervisor of transportation. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 4. The school district should buy better buses than those that barely meet the state minimum standards. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 5. Spare buses should be kept in as good condition as a regular bus. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 6. Buses should be equipped with snow tires and/or chains so schools could remain open in adverse weather. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 7. Buses should be radio equipped to secure quick assistance in case of an emergency or breakdown. | Agree _____ | Disagree _____ | No
Opinion _____ |

- | | | | |
|------------------------------------------------------------------------------------------------------------------|-------------|----------------|---------------------|
| 8. Law officers with radios should periodically ride buses to help control traffic around buses. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 9. Immediate steps should be taken to provide a training program for all bus drivers. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 10. The present driver salaries should be increased to maintain a satisfactory staff of bus drivers. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 11. Substitute drivers should meet all the requirements of a regular driver. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 12. Bus drivers should be required to attend clinics that test driving abilities at least once a year. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 13. Bus drivers should inform parents and principals of any student who causes disturbances on a bus. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 14. Bus drivers should have the authority to take whatever steps necessary to insure proper behavior on the bus. | Agree _____ | Disagree _____ | No
Opinion _____ |
| 15. Some drivers operate their buses in a reckless, unsafe manner. | Agree _____ | Disagree _____ | No
Opinion _____ |

16. Students who live within one and one half miles of their school should not be allowed to ride a bus.
17. No student should have to ride a bus standing up.
18. Alternate bus routes should be set up for use during adverse weather conditions, such as ice and snow.
19. Parents are properly informed about the conditions under which their child may lose the privilege of riding a bus.
20. There should be one set of behavior rules for every bus and student in the county.
21. Students are properly informed concerning their expected behavior and responsibility on a bus.
22. Any student who continually misbehaves on a bus should be removed from the bus, permanently if necessary.

Agree _____

Disagree _____

No
Opinion _____

Agree _____

Disagree _____

No
Opinion _____

Agree _____

Disagree _____

No
Opinion _____

Agree _____

Disagree _____

No
Opinion _____

Agree _____

Disagree _____

No
Opinion _____

Agree _____

Disagree _____

No
Opinion _____

Agree _____

Disagree _____

No
Opinion _____

23. Better communication between students, parents, school authorities, and the public could lead to a safer and more efficient transportation system.

Agree _____ Disagree _____ No
Opinion _____

24. Only three mechanics are needed to maintain a fleet of sixty buses.

Agree _____ Disagree _____ No
Opinion _____

25. Bus routes could be laid out in a more efficient manner to save time, expense, and to make bus travel safer.

Agree _____ Disagree _____ No
Opinion _____

26. Motorists who fail to obey a school bus's warning lights and stop signals used when loading and unloading should be issued a citation.

Agree _____ Disagree _____ No
Opinion _____

27. Local law officials could be more helpful on streets and highways around schools.

Agree _____ Disagree _____ No
Opinion _____

28. Some type of traffic patrol should be used in all school zones.

Agree _____ Disagree _____ No
Opinion _____

29. The practice of having many students spend one to two hours per day in a bus room at school should be changed.

Agree _____ Disagree _____ No
Opinion _____

30. More funds should be provided to insure better service and maintenance of buses.

Agree _____ Disagree _____ No
Opinion _____

APPENDIX B

of Education

LOM, CHAIRMAN
TN 37036

D FURNACE, TN 37051
HER
N 37025
RVEY
TN 37036
TTLETON
37055
TH
F, TN 37187
RPLEY
37055

OFFICE OF

Dickson County Board of Education

JAMES E. SULLIVAN, SUPERINTENDENT PUBLIC SCHOOLS
DICKSON COUNTY, TENNESSEE

Charlotte, Tennessee 37036

Administra

Personnel

F.D. BENNETT, SECOND
OF INSTRUCTION AND
OF FEDERAL PROJEC
MRS. SARA P. CAUDILL
ELEMENTARY SUPERV
TION
LARRY PENDERGRASS
ATTENDANCE SUPERV
WAGNER DUKE,
TRANSPORTATION SUP
MRS. MAY LANKFORD,
SECRETARY TO SUPER
MRS. WILMA B. TAYLOR
ADMINISTRATIVE ASSI
MRS. BETTY LOU WOLC
ASSISTANT DIRECTOR I
PROJECTS & SECRETAR
MRS. MARY ANN SELF
BOOKKEEPER

July 27, 1981

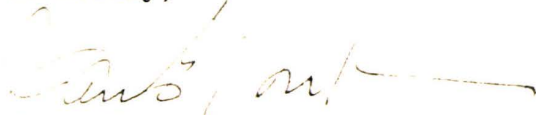
Dear Sir:

Rodney Biter has been granted permission by the Dickson County Board of Education to do a comprehensive survey of pupil transportation in Dickson County.

If we can be of service to you or Mr. Biter, our office is open to you at any time.

Thank you very much.

Sincerely,



James E. Sullivan, Secretary
Dickson County Board of Education

JES:blw