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A survey of school transportation problems in the six northern townships of Putnam County, Indiana

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A SURVEY OF SCHOOL TRANSPORTATION PROBLEMS IN THE
SIX NORTHERN TOWNSHIPS OF PUTNAM COUNTY INDIANA

A Thesis
Presented to
the Faculty of the School of Education
Indiana State Teachers College

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

By
Vernon Wayne Gardner
August 1950

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The thesis of Vernon W. Gardner,
Contribution of the Graduate School, Indiana State
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A SURVEY OF SCHOOL TRANSPORTATION PROBLEMS
IN THE SIX NORTHERN TOWNSHIPS OF PUTNAM
COUNTY, INDIANA

is hereby approved as counting toward the completion
of the Master's degree in the amount of 4 hours'
credit.

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

Education in its infancy was centered in the small one-room district school. In the beginning of the public school system, the children attended school only in the winter months when the weather conditions were such that they were unable to do farm work. It was therefore necessary that the district school be established in such a manner that the pupils attending it would live near enough so that they could walk to and from school with no physical handicap due to weather conditions. But with the passing of time this type of school proved inadequate, and a township consolidated school replaced it. Upon the creation of the township consolidated school, it was necessary that the pupils be able to attend it. Thus, pupil transportation was born.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study (1) to make a survey of the present transportation routes of the six northern townships in Putnam County, Indiana; (2) to make an analysis of the survey; and (3) to propose changes that would improve the efficiency as well

Indiana. This

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as decrease the cost of transporting the pupils to and from school.

Importance of the study. Transportation of school children has been one of the most unsatisfactory services of the public school systems for many years. Many miles of useless travel have been driven. Under the township system the expense has been multiplied because there was no bargaining power in purchasing the small number of articles needed for pupil transportation. The road that was established as the geographical boundary between two counties or two townships has been traveled by two busses, one from each county or township, to transport the pupils to their respective home township schools. However, this overlapping did not occur only on county or township lines, but also occurred within the township. Because of the routing, two busses from the same township often traveled the same road. In this study an attempt has been made to find these overlappings and to suggest a means of correction.

Limitations of the study. Pupil transportation presents many problems and this study has been limited to a survey of the routes from the viewpoint of efficiency and economy. The area used as the basis for this survey was the six townships in the northern part of Putnam County, Indiana. This area is composed of Clinton, Floyd, Franklin,

Jackson, Monroe and Russell townships. These townships are contiguous and embody approximately the same number of school children. The topography of the townships is practically the same and five of the six townships border with other counties.

II. DEFINITIONS OF TERMS USED

Transportation. Transportation shall be construed as meaning the conveying or hauling of school children from their homes to school and return them to their homes after school has been dismissed for the day.

School children. School children shall be construed as meaning any child under twenty-one years of age attending school up to and including the twelfth grade.¹

School bus driver. A school bus driver was interpreted as meaning any person who has entered into a contract with the public school authorities of the State of Indiana to convey school children to and from school or to and from school activities by automobile, hack, motor conveyance or any other vehicle.²

¹ Dr. Otto T. Hamilton, compiler, School Laws of Indiana, 1946. State of Indiana, Department of Public Instruction, Bulletin No. 154, p. 501.

² Ibid., p. 500.

School bus. The term school bus has been construed as meaning a bus body mounted upon a truck chassis, but the School Laws of Indiana have defined a school bus as any bus, hack, conveyance or motor vehicle used to transport school children to and from school, and from school athletic games or other school contests or functions.³ However, the definition stated that a privately owned automobile with a capacity of five passengers should not be classified as a school bus, but school authorities could, under certain conditions, contract for a conveyance of this type.

Administrator. The name administrator as used in this study was interpreted as meaning the high school principal. Although he had nothing to do with the choosing of the school bus drivers or the routing of the buses, he did have an interest in the welfare of the pupils, and was interested in their safety and comfort in traveling to and from school.

School authorities. School authorities and school officials were used interchangeably in the study. They were construed as meaning the employing officials, who, in this study, are the township trustees.

Board. The board as used in this study was construed

³ Ibid., p. 501.

as meaning the township advisory board. This board served at the time and place of the letting of the contracts for the bus routes. They discussed the ability of the bidder and his qualifications and advised the trustee who they thought to be the lowest and best bidder for each of the advertised routes.

III. ORGANIZATION OF REMAINDER OF THE THESIS

The organization of the balance of the thesis was on the chapter basis. It was the endeavor of the writer to review the available literature on pupil transportation and embody that material along with his findings, as the result of his survey in this study. Chapter II was devoted to the condensation of the review. Chapter III was used to show the results of the survey in the six northern townships in Putnam County, Indiana. In Chapter IV the writer gave his conclusions and recommendations. The outside readings used were listed in the bibliography.

CHAPTER II

REVIEW OF LITERATURE ON TRANSPORTATION

I. REVIEW OF LITERATURE ON TRANSPORTATION

Schools are generally located so that a substantial proportion of the children reside conveniently close to the buildings, but there are many pupils, especially in rural areas, who must travel long distances to reach schools. Pupils that live along the edges of the school districts have always had more difficulties in maintaining regular school attendance than those living near the buildings.

Prior to the development of the motor vehicles, students living beyond reasonable walking distances had a number of unpleasant choices. They might give up school attendance, endure the hardships of walking great distances daily, use a horse and buggy, ride to school on horseback, board near the school or urge the family to move to a home closer to the school.

As a partial solution to this problem of traveling great distances, authorities made a determined effort to establish schools, however small and weak, in all areas close to the home of the children. Later this decentralization process was reversed and school officials since 1920 have seen greater advantages in transporting pupils

to larger schools. In this school-consolidation effort, made possible by the motor bus, school transportation has developed into an important part of the school program in all states.

During the twenty-six years from 1917-1918 to 1943-1944 the number of one-teacher schools declined from 195,000 to 97,000.¹ School buses have brought the advantages of the large modern school to thousands of children who otherwise would have attended small one-teacher units. They have also helped to increase school attendance.

The expenditure of public funds for school transportation was first legalized in 1869 in Massachusetts, next in Ohio in 1898. From these early instances in Massachusetts and Ohio, pupil transportation has grown until it is now permitted by statutes in all the forty-eight states and many of them have made pupil transportation mandatory under certain conditions, that is, for all children residing more than two miles from school.

The summaries of the various reports on pupil transportation received from the reporting states prior to World War I are meager. The reports that were turned in before

¹ Walter S. Monroe, Transportation of Pupils, Encyclopedia of Educational Research (New York: The Macmillan Company, 1950), p. 1489.

the war were in round numbers and as such they indicated that they were not too reliable. However, on the basis of these reports, it is estimated that approximately \$8,000,000 was spent for the transporting of pupils to and from school during the school year of 1917-1918.² This phase of the public school program has increased in cost until during the school year of 1943-1944 transportation costs amounted to \$108,000,000. These figures show a vast amount of outlay of cash for the transportation of about one-fifth of the pupils attending school.

Since World War II the costs of pupil transportation have continued to increase, but the patrons have not been too excited about this fact. Attendance at the letting of transportation contracts has been small, usually attended only by the parties that were interested in getting the contracts. The school authorities met in closed session, opened the bids, awarded the contracts, announced the winners and the meeting adjourned.

Under actions of this type, the important problems in pupil transportation were pushed to one side and neglected or forgotten. Two of these problems are outstanding, namely, efficiency and economy. A great amount of thought should be given to these two problems to increase efficiency and to

² Ibid., p. 1490.

secure greater economy in providing this service in order to hold to a minimum the part of the school dollar which must be devoted to pupil transportation.

Featherstone³ stated in his report that there were three phases in the program of pupil transportation that needed strengthening: administration, financing and efficiency.

Pupil transportation has very little administration since the school administrator is not particularly interested in how the pupils get to school just so they are there at the proper time. The school administrator is completely ignored when it is time to let the contracts for the transporting of pupils to his school. As a result, the administrator assumes the attitude that his duties begin with the arrival of the children in the morning and ends with their dismissal in the afternoon. This attitude must undergo a radical change before a good system of administration is founded. There must be a recognition on the part of the school authorities and the school administrator that pupil transportation has become one of the important parts of the school program before they can contribute much to the planning of this service.

³ E. Glenn Featherstone, "Transportation of Pupils, a Growing Problem," School Life, 31:4-6, January, 1949.

Another vital need in many states is to work out a sound scheme for financing and administering the transportation program. The community with little wealth has a greater problem in financing the transportation of their children than does the wealthy community. The wealth of a community has little effect on the problem of transportation and if there were a relationship, it would probably be in an inverse order because it has been found that the communities with a large program of transportation were not as a rule as wealthy as some with smaller programs. The wealthier communities were more densely populated and the program was more easily handled by them than it was by the sparsely settled areas.

The third phase that needs to be considered is efficiency. The majority of the school units have a program that is adequate but not as efficient or economical as it could be. The unit was too small for a good program to be mapped efficiently. It was necessary for the small unit to have as many buses as the larger unit and travel about the same number of miles while transporting only a small number of pupils. The unit should be large enough so that it could purchase larger buses and route them for efficiency and economy.

School bus ownership. Most transportation is now

provided under one of five types of arrangements.⁴

1. The service-contractor. Under this arrangement the successful bidder owns all the equipment which includes the motor chassis and the bus body. The contractor must also furnish a bond of performance, carry insurance and pay all the fees required by law for carriers of this type.

2. Joint ownership. The successful bidder furnishes the truck chassis but the school corporation furnishes the bus body. Under this type of contract the contractor also pays all the necessary fees and the school corporation has no responsibilities.

3. School owned unit. This type of contract was found to be the best of the various arrangements. The school corporation would purchase the entire vehicle and employ a responsible person to operate it. The insurance necessary for its operation was secured under the policy the corporation held as protection against any school liability. Other fees were not charged against the corporation as it was considered a part of the civil government.

4. The school children rode to and from school on conveyances belonging to public service companies and the corporation reimbursed the parents for the fares paid for such transportation.

There was no reference to the parent

the parent.⁴ Monroe, op. cit., p. 1490.

5. In some instances it was considered more economical to pay parents to transport their own children to school.

Of the five methods mentioned, the third or school owned conveyance was determined to be the best as well as the most economical form of transportation. This type was the easiest to administer. The route could be altered without additional cost to the corporation and the driver was directly responsible to the school authorities. In this type of contract, the driver had no financial worries such as insurance and surety bonds. He was merely employed to drive the route as directed by the proper officials.

In some areas the service-contractor type of contract was used. This was expensive because the contractor must realize a sufficient amount of cash from his contract to liquidate, at least, his investment. In many cases he also included in his bid, an amount which he considered as his wages. Under this type of transportation the corporation would pay for the body and chassis several times before it was necessary to replace them with new ones. Of course the bus bodies were used again and again until an inspection showed them to be past the usable condition.

Since this study was written concerning a rural area there was no instance of the school corporation reimbursing the pupils for fares paid to public service companies; how-

ever, this type of transportation could be used in cities.

When it was necessary to pay parents to convey their own children to and from school, it might have been more economical but did not promote the best in transportation facilities. It was more expensive when you consider that only one family was transported..

Joint ownership was the vogue in the early days of pupil transportation, but when the school authorities began to analyze the transportation problems, they discovered that this type of contract was also expensive. The contractor expected to make wages as well as pay for the motor chassis he used. Some contracts were awarded for only two years and that would naturally increase the cost when the bids were opened.

Almost all investigations of transportation costs reported in the past twenty years conclude that public ownership is preferable. School transportation is expensive but where the corporation owns the vehicles the cost to the corporation was only about one-third as much as joint ownership, which was considered the second best means of transportation.⁵ The national survey showed that about sixty per cent of all the buses used in the United States were school owned. In the State of North Carolina, the State

⁵ Monroe, op. cit., p. 1491.

Board of Education purchases the equipment for all the school corporations in the State and then the local school corporations reimburse the State for the equipment they had ordered.⁶ In this manner a great saving in the initial cost is made because of large quantity purchases. The savings in some instances have been as much as three hundred dollars per unit purchased.

Bus routes and schedules. There are many different phases of pupil transportation but two of them are very important. These are routing and the schedule. There are three different methods of operation: the straight line, multiple trips and the circuit route.

The most expensive of the three is the straight line route. The bus must travel to the farthest home before beginning to pick up the children. It then gathers the children along the way as it approaches the school building. The bus is empty on one-half of its trip. The life of a bus is determined by its age not by the miles it has traveled. In the operation of a straight line route, therefore, the bus delivers only one-half its efficiency.

The best type of routing is the circuit route. The operator of a circuit route begins to gather his load at a

⁶ Pupil Transportation, The Forty-eight State School Systems, (Chicago; Illinois, The Council of State Governments, 1949), p.105.

point about two miles from the school building and continues to take on passengers, traveling in a circle, until he is completely loaded about two miles from school. In a routing of this type the bus travels very few miles empty. It also tends to equalize the school day for the pupils since the first child to get on the bus in the morning is the first to reach home in the afternoon. All the children ride the same distance and are away from home the same amount of time.

The third system of routing has been called multiple trips and means just that. Under this planning the bus would make one route, leave the first load at the school building and continue on a second route. This is the most economical method. However it makes the school day longer for the pupils that ride on the first load.

Each bus driver should make out a time schedule as soon as possible after school begins in the fall. This schedule should state the time the driver expects to reach the home of the child in the morning and also in the afternoon. Some of the children may live a short distance off the road and it is necessary for them to know approximately when to expect the bus to arrive. This time element is especially important during the winter months when the weather is bad. No child should be exposed to the weather longer than is absolutely necessary.

Pupil transportation in Indiana. The foundation of every State is the education of its youth. Indiana has tried to make an education available to every child within its boundaries.

Although Ohio is credited with passing the second law legalizing pupil transportation in 1898, it was found that the Legislature of the State of Indiana had passed the first of many laws with reference to this school service in 1889. This law merely gave the school authorities permission to transport pupils to and from school at public expense.⁷ From this first law, transportation has increased rapidly in the Hoosier State. Indiana has always been blessed with one of the best systems of roads in the nation and for that reason the conveying of pupils was not a difficult problem. Another reason for the rapid growth was the fact that a larger school unit existed in Indiana than in most states. In most of the other states, the district was still the local unit while in Indiana the school unit was the same as that for the civil government, the township.⁸ These two

⁷ Pupil Transportation "An Evaluation of the Indiana Public Schools, Indiana School Study Commission," (Indianapolis, Indiana, 1949), p. 174.

⁸ Maurice E. Stapley, Suggested Procedure for Securing Economical and Efficient Pupil Transportation (Division of Research and Field Service, Indiana University, Bloomington, Indiana, July, 1947), Volume 23. p. 2.

facts coupled with the improvement of the motor vehicles made pupil transportation a simple matter, both with reference to the time element and the comfort of the pupils.

Even though pupil transportation is not a part of the school program, it has become one of the most important of the auxiliary services of the school both from the standpoint of the number of pupils transported and from the standpoint of the cost of the service. The function of pupil transportation is merely to get the pupils to and from school. However, it is an integral part of the school program because without pupils our program for education would collapse.

During the past ten years this service to the rural families has increased rapidly. At the present time about one-third of all the school children in the State of Indiana are taken to and from school at public expense.⁹ Of course the reason for this high per cent is the fact that the schools are now centered in townships and practically every township in the state has a consolidated school regardless of the number of pupils enrolled. The percentage of pupils enrolled that are transported in Indiana is probably one of the highest in the nation. If the enrollment of the city schools were subtracted from the total enrollment in the

⁹ Ibid., p. 3.

State and only the township consolidated schools considered, this percentage would be considerably higher.

Transportation of school children has advanced and improved with the improvement of the motor vehicle. It is also closely interwoven with the abandonment of schools. As soon as it was determined that a district school no longer filled the needs of the community and the children residing in the district, the school authorities would abandon the school. Then, under a State Law enacted in 1907, it was necessary that the school officials furnish transportation for the pupils to the school they were required to attend.¹⁰ Not all of the children were furnished transportation, only those attending elementary school; high school students were required to furnish their own conveyance. The original law was amended in 1921 and again in 1933. The original law provided transportation if the child lived farther than one mile from the new school he was to attend. This distance was lowered to one-half mile by the 1933 amendment. It is still not mandatory for the school authorities to furnish transportation for high school students.

If a township does not maintain a high school and there are fifteen or more high school students in that township, and the majority of the parents of these students

¹⁰ School Laws of Indiana. pp. 487-489.

petition the trustee for transportation to a high school, then the trustee shall provide this transportation from some central location which he has designated. The trustee also has the power to determine the high school that shall be attended by the students of his township.¹¹

The transportation of school children is a responsible undertaking. The youth of our nation must be protected in their movements. For this reason the school buses are painted an orange yellow to distinguish them from other motor vehicles. All drivers of other motor vehicles know that it is necessary for them to come to a complete stop if the school bus has stopped on the highway for the purpose of loading or unloading children. All buses are equipped with lights to designate their use and have a red flasher stop-light also to attract the attention of any one following a bus closely. All buses are equipped with safety glass and the seats are so arranged that the children face the front of the bus.

Not only the safety of the children must be considered, but all buses have facilities for the ventilation and heating of the bus. In this manner the health of the child has been considered. Another fact in the protection of the health of the children is the requirement of a health cer-

¹¹ School Laws of Indiana, Ibid., pp. 493-498.

tificate from the bus driver. The bus must also be kept clean and as tidy as possible.

The school bus driver shall be a responsible person and be at least twenty-one years of age.¹² The owner of the chassis is required to carry public liability and property damage insurance as an added protection for the children and their parents or guardians.

II. SUMMARY OF THE CHAPTER

The evolution of the public schools from the small one-room district schools to the larger township consolidated schools was slow. This change became widespread during the 1920's and the one-room schools disappeared by the hundreds. It was during this same period that the motor vehicle became a common means of conveyance. Transportation prior to that time had been by horseback or horse and buggy but the smaller children could not use either of these by themselves. When the old type of school became inadequate something had to be done. Transportation of school children was the answer and it has grown into an expensive school service.

Massachusetts was the first state to legalize pupil transportation at public expense but the remaining forty-

¹² School Laws of Indiana, Ibid., p. 507.

seven states have now done the same.

Two of the most important phases of transportation are efficiency and economy but school patrons do not seem to be too interested in them. Even the administration of this part of the school service is in need of strengthening.

The ownership of the facilities for the transportation of school children falls into five classes. Transportation of school children is, to a certain extent, comparable to any other type of transportation and a time schedule should be established and followed. The school bus routes belong to one of three types of which the circuit route is best.

Indiana was in reality the second state to legalize pupil transportation at public expense. Its first law on this phase was passed by the state legislature in 1889. The township unit in Indiana was larger than the district unit used in other states and made transportation a simpler problem. Indiana's system of roads also aided in making the routing of the buses easier. All children attending elementary schools and living more than one-half mile from the school buildings are furnished transportation to and from school. The transportation of high school students is left to the discretion of the trustee. The health and safety of the pupils transported are protected by laws on school bus operation.

School buses have a standard color and are inspected annually to determine their condition and usability. The drivers must be examined for physical fitness before being awarded a contract. Public liability and property damage insurance must be carried by the contractor in an adequate amount.

School buses are a major part of the transportation system in many communities. They are used to transport students to and from school, and they are also used for field trips and other educational activities. School buses are a vital part of the education system, and they play a major role in ensuring that all students have access to a quality education.

CHAPTER III

PRESENTATION AND ANALYSIS OF BASIC MATERIAL

I. PRESENTATION OF BASIC MATERIAL

Pupil transportation is a public school service, but it is also the backbone of our educational program. It is doubtful whether our schools would have as high an average daily attendance if the school officials did not provide the children with a convenient means of going to and from school. The township trustees realize this fact, and even though it is not mandatory that they provide transportation for high school students, they do furnish it. In reality the transportation of high school students causes no inconvenience, the buses travel the public highway past their homes and with very little extra expense there is plenty of room for them to ride. This extra expense represents the difference between a large and a small bus body.

The trustees of Clinton, Floyd, Franklin, Jackson, Monroe and Russell townships, the six northern townships in Putnam County, Indiana, are furnishing transportation to any person desiring to attend the public schools of their townships. This represents the democratic form of living we have in our free nation.

School buses. A school bus has been defined as any

conveyance used to transport school children to and from school. In the beginning of pupil transportation this meant horse drawn vehicles--buggies, wagons or the old time hack. This type of equipment was used until the motor vehicle became sufficiently improved that it could be satisfactorily used. With the improvement of the motor vehicle, the number of buses needed was reduced, because the amount of time needed to cover the route was reduced by the faster vehicle. It was recognized by the school authorities in the early days of pupil transportation that the school day of a child should not be too long, and the child's school day begins and ends on the school bus.

Modern means of pupil transportation in the six townships used in this survey fall into three general types, the automobile, the station wagon and the standard school bus. Each of three types had its part to play in the transportation program. In these six townships twenty-seven school buses were used. Of these twenty-seven buses, twenty-five were the conventional type, a truck chassis with a school bus body mounted upon it. There was also one station wagon and one passenger car used as school buses.

The life of a school bus body is determined by the years used and not by the miles traveled. The ages of the bus bodies in these six townships ranged from one year to

Indiana Code, Sec. 22-2-1-1, 22-2-1-2, 22-2-1-3, 22-2-1-4, 22-2-1-5, 22-2-1-6, 22-2-1-7, 22-2-1-8, 22-2-1-9, 22-2-1-10, 22-2-1-11, 22-2-1-12, 22-2-1-13, 22-2-1-14, 22-2-1-15, 22-2-1-16, 22-2-1-17, 22-2-1-18, 22-2-1-19, 22-2-1-20, 22-2-1-21, 22-2-1-22, 22-2-1-23, 22-2-1-24, 22-2-1-25, 22-2-1-26, 22-2-1-27, 22-2-1-28, 22-2-1-29, 22-2-1-30, 22-2-1-31, 22-2-1-32, 22-2-1-33, 22-2-1-34, 22-2-1-35, 22-2-1-36, 22-2-1-37, 22-2-1-38, 22-2-1-39, 22-2-1-40, 22-2-1-41, 22-2-1-42, 22-2-1-43, 22-2-1-44, 22-2-1-45, 22-2-1-46, 22-2-1-47, 22-2-1-48, 22-2-1-49, 22-2-1-50, 22-2-1-51, 22-2-1-52, 22-2-1-53, 22-2-1-54, 22-2-1-55, 22-2-1-56, 22-2-1-57, 22-2-1-58, 22-2-1-59, 22-2-1-60, 22-2-1-61, 22-2-1-62, 22-2-1-63, 22-2-1-64, 22-2-1-65, 22-2-1-66, 22-2-1-67, 22-2-1-68, 22-2-1-69, 22-2-1-70, 22-2-1-71, 22-2-1-72, 22-2-1-73, 22-2-1-74, 22-2-1-75, 22-2-1-76, 22-2-1-77, 22-2-1-78, 22-2-1-79, 22-2-1-80, 22-2-1-81, 22-2-1-82, 22-2-1-83, 22-2-1-84, 22-2-1-85, 22-2-1-86, 22-2-1-87, 22-2-1-88, 22-2-1-89, 22-2-1-90, 22-2-1-91, 22-2-1-92, 22-2-1-93, 22-2-1-94, 22-2-1-95, 22-2-1-96, 22-2-1-97, 22-2-1-98, 22-2-1-99, 22-2-1-100.

fifteen years and averages nine years in use. Only two new bodies had been purchased during the past year. However, in Jackson Township only one old body was in use, the other three had been purchased during the last three years. Neither Russell nor Floyd Townships had purchased any new bodies during the past ten years.

The complete survey showed that two bodies were purchased in 1949, five in 1947, two in 1946 and one in 1943. The remaining fifteen buses had been in use ten years or more. One had been in use fifteen years and five had been used fourteen years.

The period from 1941 to 1946 showed the purchase of only one new bus body. World War II was in progress at this time and rationing was in effect. The one purchased in 1943 was to replace one that had been destroyed by fire. During the War period the trustees used anything that was usable for transportation, it worked and now they are very hesitant to ask for an appropriation to buy new equipment until the old ones they have fall apart.

Contracts. Contracts for the privilege of transporting children to and from school are let to the lowest and most responsible bidder.¹ The lowest bidder is not always

¹ Dr. Otto T. Hamilton, compiler, School Laws of Indiana 1946. State of Indiana, Department of Public Instruction, Bulletin No. 154, p. 503.

the successful one. The trustee, with the help of the advisory board, determines who is the most responsible bidder and his bid may not be the lowest. The lives of the children riding in a school bus are in the hands of the driver and if he is not a person who will assume responsibility, then he should not be awarded a contract even though his bid is lowest. This phase of contract letting may cause the cost of transportation to be more but the safety of the children more than offsets the added expense. If politics were to enter into the contract letting, the most responsible bidder clause furnishes the trustee with the desired protection.

Contracts for the transportation of school children may be let for a period of either two or four years.² A newly elected trustee usually awards the contracts for four years and does this his first year in office. By doing this he has eliminated the necessity of advertising for bids a second time during his tenure of office. A contract automatically expires with the expiration of the awarding official's term of office. Of course, the contract covers the school year, which is the number of days for which teachers receive pay.

The contracts are not general but are specific. The route is established by the trustee and the successful bid-

² Ibid., p. 505

der is awarded a contract to serve the children on the route as it was advertised. Any additional mileage means additional pay to the contractor. However this does not work in reverse, if the route is shortened the contractor still receives the per diem he stated in his bid.

When the successful bidder is awarded his contract, he must perform the duties as prescribed. He cannot sublet his contract to another person.³ The trustee usually specifies that the successful bidder shall drive the bus himself, but he may designate a substitute driver. This driver must be acceptable to the school officials and he may serve only in extreme circumstances.

In the townships covered by this survey, all except Russell awarded four year contracts. The trustee of Jackson Township however found it necessary to award a one year contract to fill a vacancy due to the death of one of his school bus drivers.

The trustee of Jackson Township awarded his contracts by districts. Rather than establish specific routes he divided the township into four districts and advertised for bids on this basis. The contract specifically stated that the successful bidder was to map his own route and the bidders understood that the successful one was to furnish trans-

³ School Laws of Indiana, Ibid., p. 508.

portation to all the school children that lived in his district or might move into his district. Thus there was no change in the per diem of the successful bidders during the life of his contract.

School bus ownership. As was stated earlier in this study the ownership of school buses falls into three categories: service-contractor, joint and school corporation.

The only service-contractor ownerships in the six townships were the station wagon and the passenger car. There were none of the conventional school buses that were owned in their entirety by the contractor.

Floyd Township and Jackson Township each owned one unit. The remaining twenty-three pieces of transportation equipment were jointly owned.

Transportation costs. The cost of transporting school children has increased about one-third in the last decade. If the contracts in the six townships surveyed had not been let for four years these costs would have been higher. This fact was discovered in Russell Township where the contracts were for two years. There the bids for the current contracts were about one dollar per day higher for each route than the successful bidders received on the previous contracts.

By referring to Table I it was disclosed that the variation in the per diem was from \$3.50 for the station

wagon in Monroe to \$9.30 for route 2 in Franklin, with an average per diem of \$7.11 for each of the twenty-seven routes.

There was a difference of almost eight cents per mile between the high and low routes with a high of 24.9 cents per mile and a low of 10.2 cents. The average cost per mile was 17.1 cents.

In the six townships a total of 838 pupils were transported daily at an average cost of 22.9 cents per pupil per day. Russell Township was high in this respect with route 1 showing a per pupil cost of 49.8 cents per day while route 1 in Jackson Township showed a cost of only 14.3 cents.

Clinton Township has discontinued its high school and now transports the high school students to Bainbridge, a distance of nine miles from Clinton Center, the location of the Clinton Township elementary school. This is an additional expense of fifteen cents per student per day. With this added travel, the total cost of transporting the high school students to their seat of learning is 37.9 cents per day per pupil.

School bus routing. The routing of school buses is one of the difficulties a trustee encounters when he is preparing the notices to advertise for contract bids. Trustees in rural areas must establish routes according to the school

TABLE I

ANALYSIS OF PUPIL TRANSPORTATION COSTS IN THE SIX NORTHERN TOWNSHIPS OF PUTNAM COUNTY, INDIANA, 1949-1950

Township	Route number	Type of route	Type of owner	Pupils transported	Per diem wage	Per pupil cost	Age of body	Length of route	Per mile cost
Clinton	1	Circuit	Joint	34	\$7.00	.206	10	40	.175
	2	Circuit	Joint	26	7.45	.287	12	40	.186
	3	Circuit	Joint	36	7.39	.205	4	40	.185
	4	Circuit	Joint	32	7.30	.228	3	40	.182
	5	S.L.*	Joint	30	7.11	.237	3	40	.178
				<u>158</u>	<u>36.25</u>	<u>.229</u>		<u>200</u>	<u>.181</u>
Floyd	1	S.L.	Joint	32	7.90	.247	12	40	.197
	2	S.L.	Joint	36	6.25	.174	12	40	.156
	3	Circuit	Joint	31	7.25	.234	14	40	.181
	4	S.L.*	S.C.*	30	4.50	.150	12	44	.102
	5	Mul.*	Cont.*	17	8.00	.471	1	48	.167
				<u>156</u>	<u>33.90</u>	<u>.217</u>		<u>212</u>	<u>.160</u>
Franklin	1	S.L.	Joint	24	7.50	.312	14	36	.208
	2	S.L.	Joint	35	9.30	.266	3	42	.221
	3	Circuit	Joint	36	7.75	.215	14	46	.168
	4	S.L.	Joint	35	7.00	.200	14	30	.233
				<u>130</u>	<u>31.55</u>	<u>.243</u>		<u>154</u>	<u>.205</u>
Jackson	1	District	Joint	45	6.50	.143	11	28	.232
	2	District	Joint	30	6.50	.217	3	50	.130
	3	District	Joint	35	6.50	.186	3	52	.125
	4	District	S.C.	35	6.50	.186	1	56	.116
				<u>145</u>	<u>26.00</u>	<u>.179</u>		<u>186</u>	<u>.140</u>
Monroe	1	S.L.	Joint	46	8.00	.174	1	50	.160
	2	Circuit	Joint	26	8.00	.308	6	56	.143
	3	S.L.	Joint	23	6.49	.282	15	52	.125
	4	S.L.	Joint	25	7.25	.290	11	40	.181
	5	S.L.	Cont.	10	3.50	.350	1	16	.219
				<u>130</u>	<u>33.24</u>	<u>.256</u>		<u>214</u>	<u>.219</u>
Russell	1	Circuit	Joint	16	7.98	.498	10	32	.249
	2	S.L.	Joint	24	7.92	.330	10	33	.240
	3	Circuit	Joint	42	7.80	.186	12	50	.156
	4	Circuit	Joint	37	7.40	.200	14	41	.180
				<u>119</u>	<u>31.10</u>	<u>.261</u>		<u>156</u>	<u>.200</u>
Totals				838	192.04	.229		1122	.171
Average								41.6	

* S.L.---Straight line: Mul.--Multiple trips: S.C.---Service-contractor: Contractor--Cont.

population at the time set for bidding. Tenants change often and as a result the school population of the township also shifts. These shifts cannot be anticipated by the school authorities. A bus route established today may be obsolete tomorrow.

As was stated earlier in the study, bus routes fall into three general types: straight line, circuit and multiple. It was found that the division of the routes among the three types was twelve straight line, eleven circuit and four multiples.

Figures one through six show the various pupil transportation routes as established for each of the six townships for the school year 1949-1950.

Two of the four multiple routes were in Clinton Township. These two buses made their regular routes, routes three and four, and then transported the high school students from Clinton Center to Bainbridge for their high school classes. Floyd and Jackson Townships had the other two multiple routes. In Jackson the bus from district 1 conveyed the high school students from Barnard, the only elementary school in Jackson Township, to Roachdale high school after having covered his regular route. The other multiple route was the passenger car route or route 5 in Floyd Township.

Each of the six townships had at least one straight line route. The straight line routes were, as a whole, bid

in and driven by contractors who lived near the farthest point on the route. They merely started gathering the children near by and continued on toward the school. In this instance the first child on the bus in the morning was the last to get off in the afternoon.

Each of the townships also had at least one circuit route. In Clinton, four of the five routes were of the circuit type.

In five of the six townships there was an overlapping of routes within the township. Floyd township had no overlapping. All of the six townships except Monroe border with some other county and it was found that the county line roads were traveled by buses from both counties. The most flagrant abuse of pupil transportation was found at the little village of Portland Mills. This hamlet, with a population of about fifty persons, lies in two counties and four townships. Two times daily four school buses, one from each township, go into this small town. Two of the buses must travel roads outside their own county in order that they may get into the town to get their respective pupils.

The county line road was found to be used by buses from both counties. Each county furnished transportation for the pupils that lived within its boundary. The trustee of Jackson Township gave the high school students that lived on the county line their choice of high schools. In one

instance here it was found that two brothers, living in the same house in Jackson Township, were attending different high schools, one going to school on a Hendricks County bus, the other riding on a Jackson Township bus. Jackson Township also borders Montgomery County and there were two buses traveling this county line road.

The same was true between Russell Township and Parke County. Russell Township and Greene Township, Parke County, both routed buses over the same road, each gathering pupils on their respective side of the road.

This overlapping of routes between townships and between counties might be explained as being the result of the teaching unit. The trustees were hesitant to transfer any pupil out of the township for fear the daily average attendance might drop sufficiently that the township would lose a teaching unit. Therefore the trustee sent buses after every available pupil.

The overlapping of routes within the township was heaviest in Franklin Township. Three buses traveled the same road for a distance of approximately two miles. Two of the three buses took on passengers. This was a sort of a skip-stop operation; one bus would get a child and then skip a house or two while a second bus would gather the children from the houses skipped by the first bus. Russell township had a routing similar to it.

A reciprocal agreement was made by the trustees of Floyd and Jackson Townships. Under this agreement the township line road was divided to prevent overlapping and the pupils were transported by the bus passing their house whether it belonged to their township or not. This method was satisfactory since all the pupils in this area were taken to the same school. A bus from Monroe Township also transported the children from one home in Clinton Township.

II. ANALYSIS OF BASIC MATERIAL

No district school remains in any of the six northern townships of Putnam County, Indiana. Floyd Township maintains no schools, transferring all school children to either Fillmore or Bainbridge. Since all district schools have been abandoned, it is necessary that the children be transported to and from school at public expense.

The pupils are transported by means of school buses. The school buses, in the majority of cases are jointly owned, with the school corporation furnishing the bus body. These bodies are getting old. Most of them have been in service more than ten years. Only two of the twenty-five in use were new, and six were fourteen years old.

Contracts to the bus drivers were either two or four years in length and were let to the lowest and most responsible bidder. Twenty-three of the twenty-seven contracts

designated specific roads to be traveled. If any mileage were added to the route, the per diem of the contractor was increased. If the route were shortened, the daily wage was not decreased.

Two types of contract letting were discovered, by district and by specific routing. The former method was used by the trustee of Jackson Township only.

Transportation costs were higher than ten years ago. The tendency is for them to go still higher at the next letting. The average cost of transporting a pupil was found to be 22.9 cents per day, with the high school students of Clinton Township costing an additional fifteen cents per pupil per day.

The average cost per mile of the twenty-seven routes was 17.1 cents. Each bus traveled an average of 41.6 miles per day.

The routes were about evenly divided between the straight line and circuit types. Routes of each of these two types were found in each of the six townships.

There were overlappings of routes within the townships, but in only two of the townships, Franklin and Russell, were these noticeable. Figures 3 and 8 show these overlappings and suggested changes are shown on Figures 7 and 8.

Buses from two counties traveled the county line

roads but the overlapping between the townships of Putnam County was negligible.

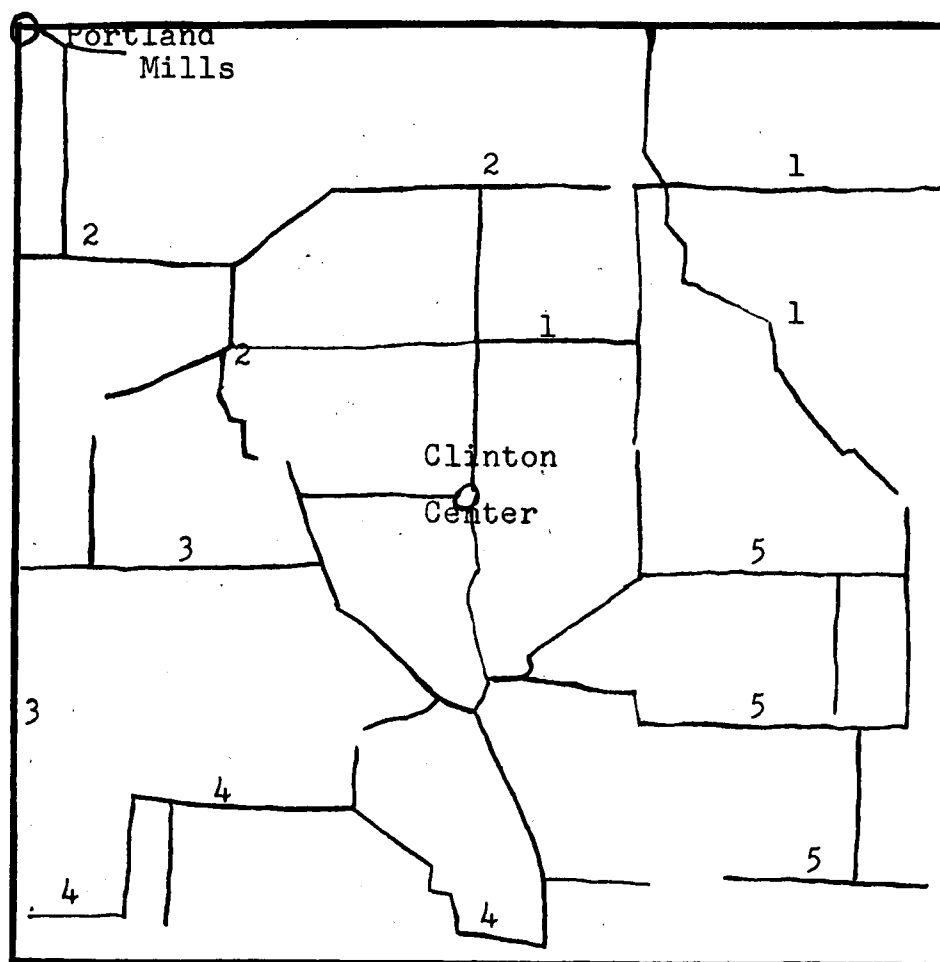


FIGURE 1

MAP OF
PUPIL TRANSPORTATION ROUTES AS ESTABLISHED
FOR CLINTON TOWNSHIP FOR SCHOOL YEAR
1949-1950

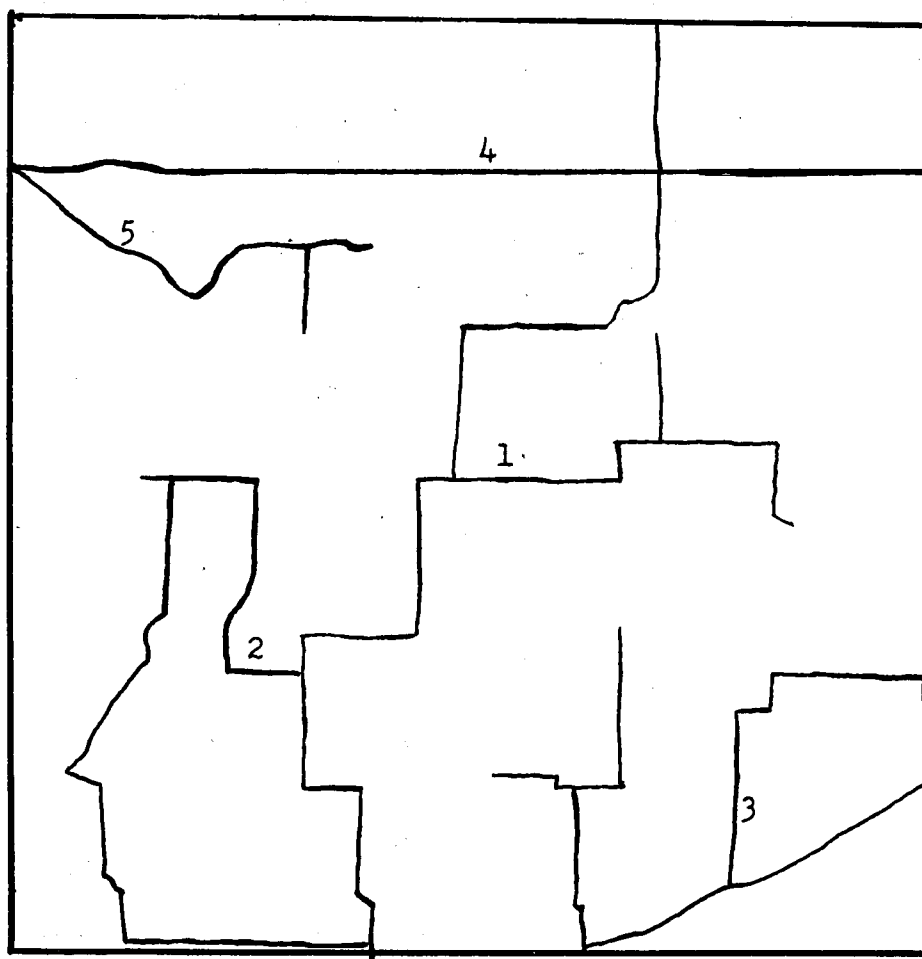


FIGURE 2

MAP OF
PUPIL TRANSPORTATION ROUTES AS ESTABLISHED
FOR FLOYD TOWNSHIP FOR SCHOOL YEAR
1949-1950

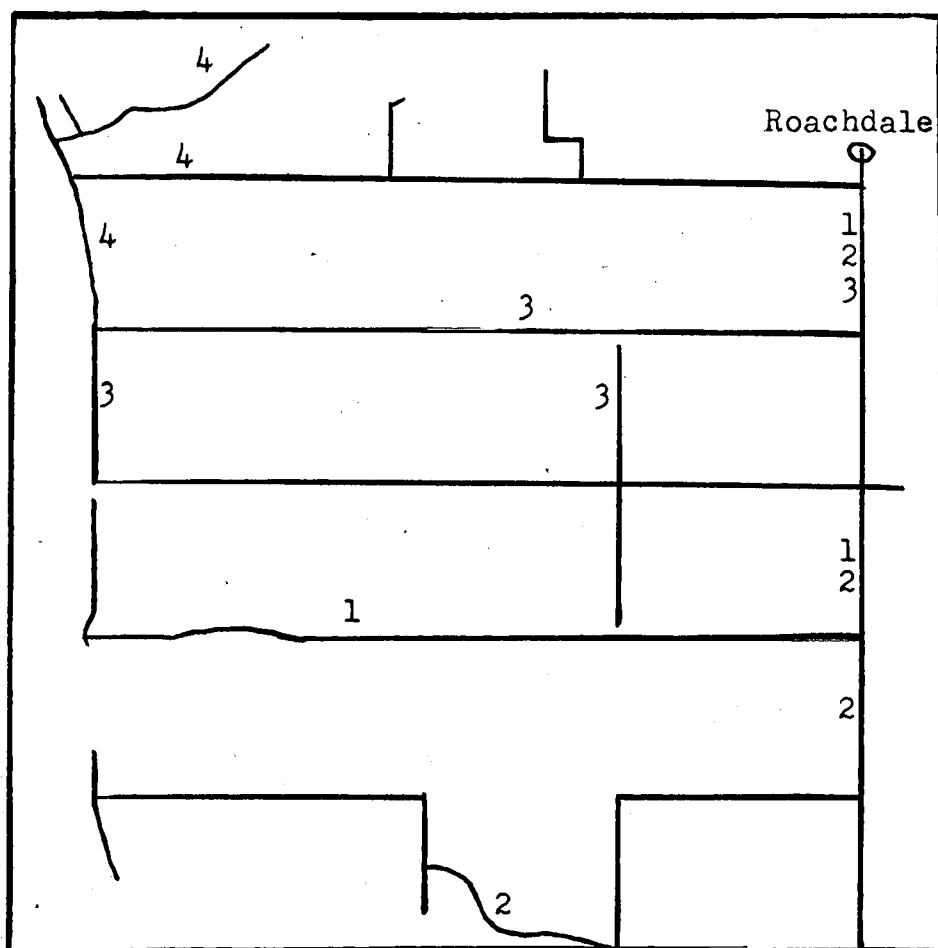


FIGURE 3

MAP OF
PUPIL TRANSPORTATION ROUTES AS ESTABLISHED
FOR FRANKLIN TOWNSHIP FOR SCHOOL YEAR
1949-1950

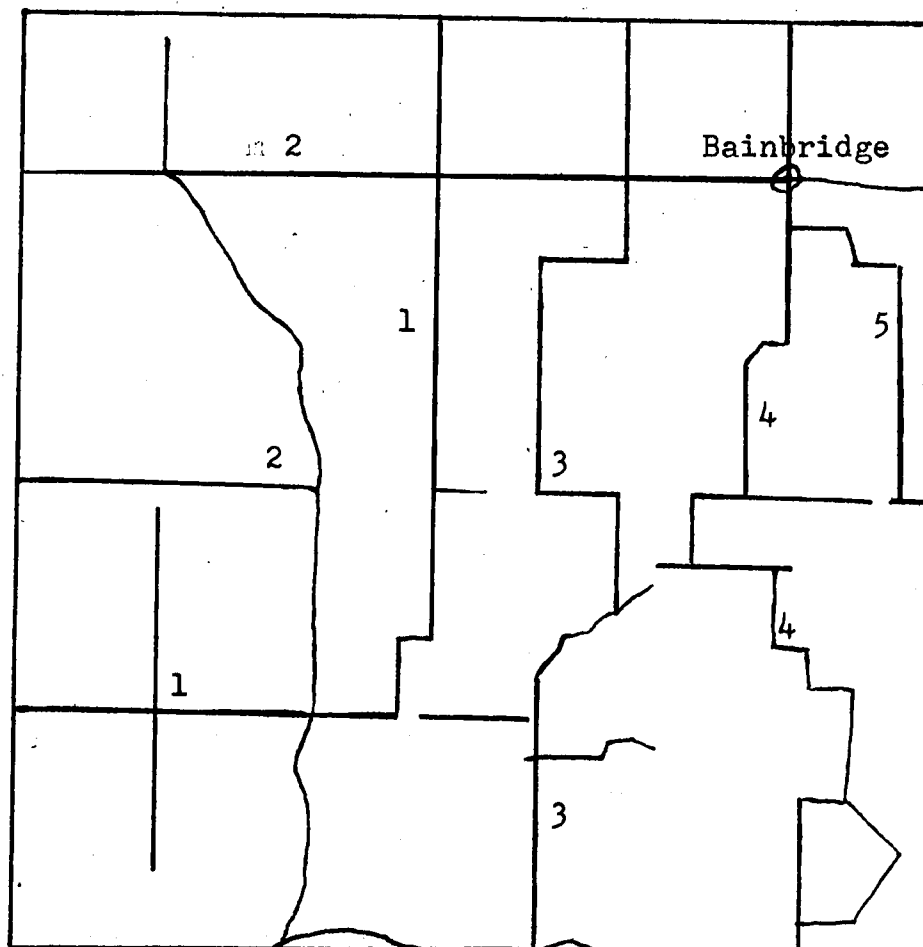


FIGURE 5

MAP OF
PUPIL TRANSPORTATION ROUTES AS ESTABLISHED
FOR MONROE TOWNSHIP FOR SCHOOL YEAR
1949-1950

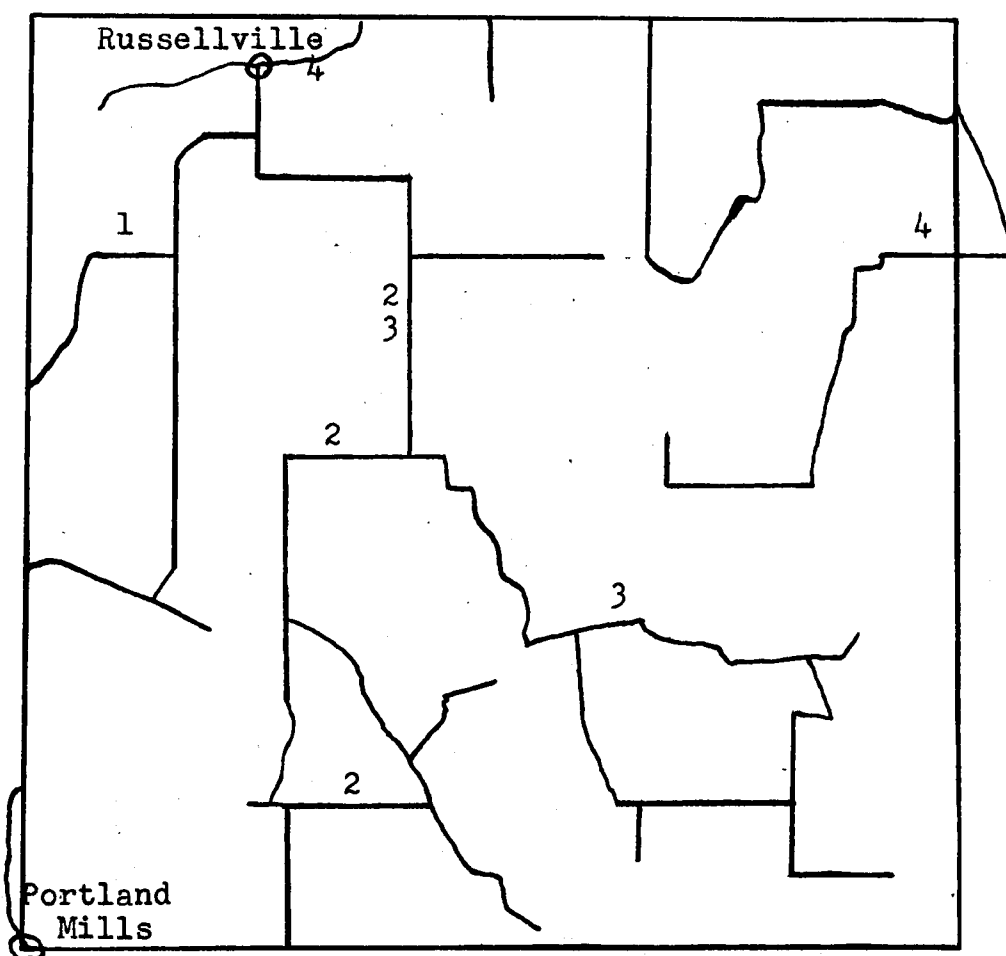


FIGURE 6

MAP OF
PUPIL TRANSPORTATION ROUTES AS ESTABLISHED
FOR RUSSELL TOWNSHIP FOR SCHOOL YEAR
1949-1950

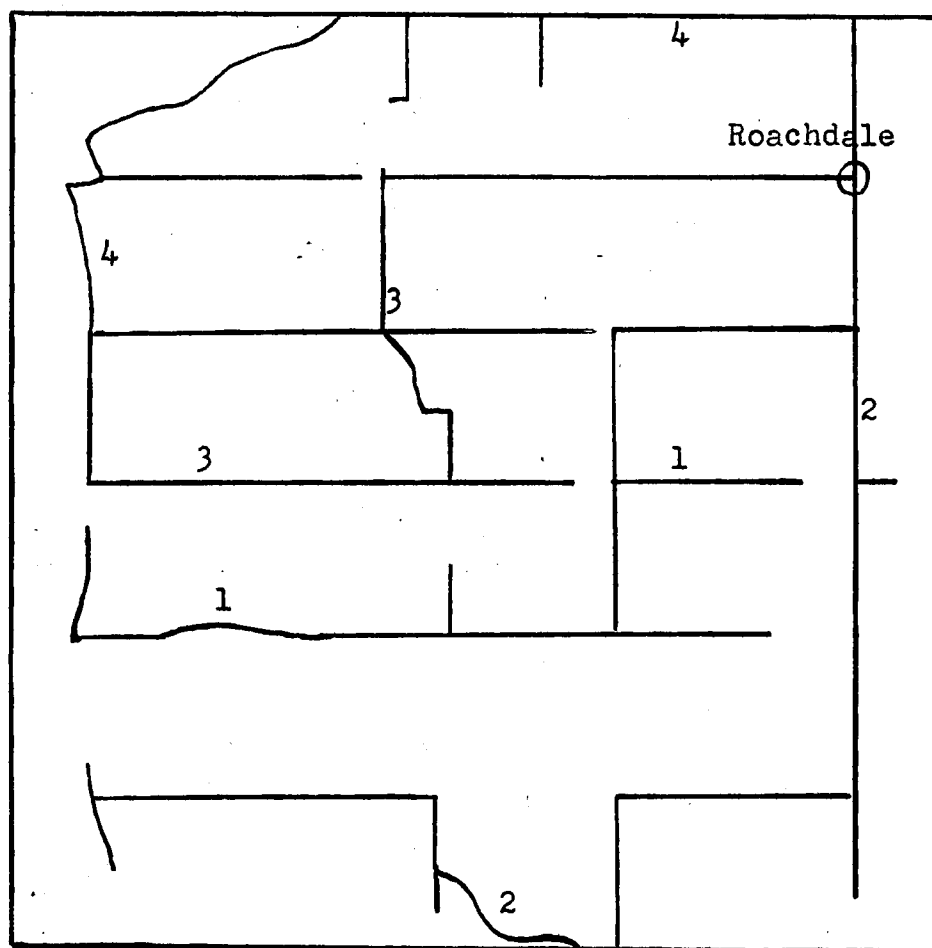


FIGURE 7

MAP OF
PROPOSED PUPIL TRANSPORTATION ROUTING FOR
FRANKLIN TOWNSHIP TO ELIMINATE
OVERLAPPING OF ROUTES

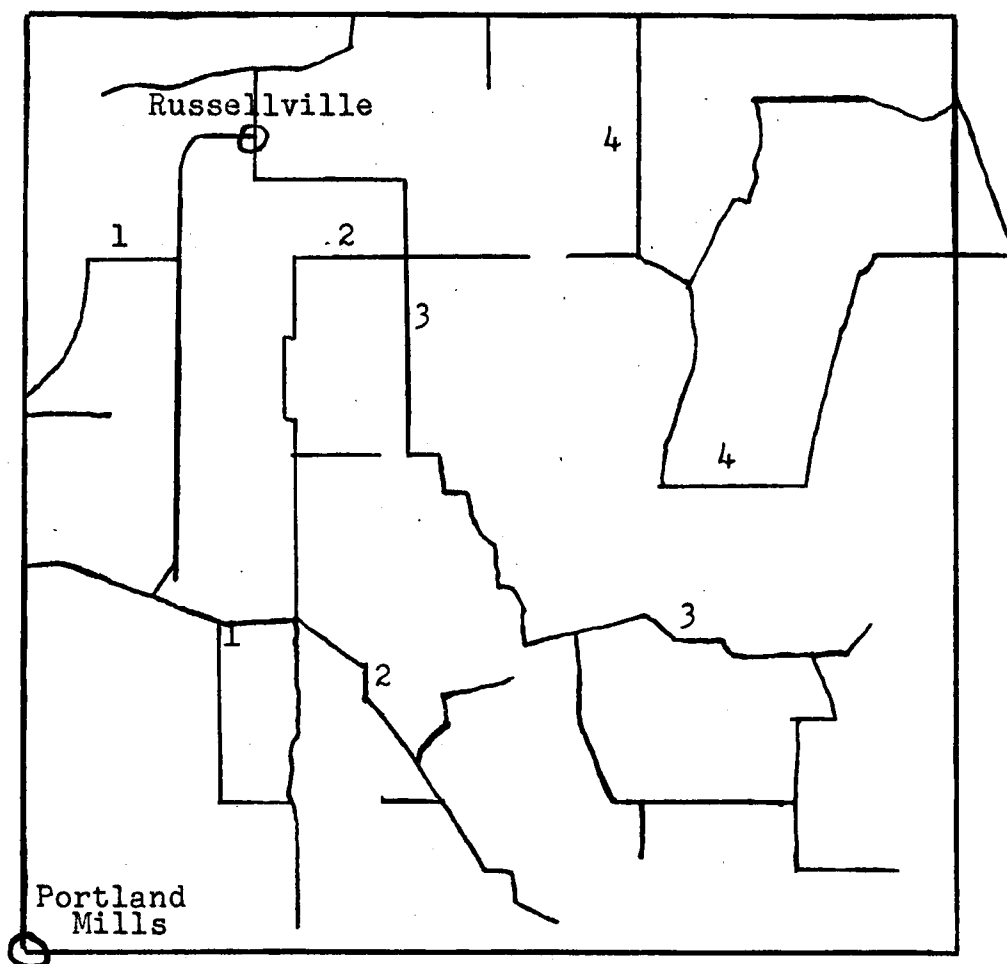


FIGURE 8

MAP OF
PROPOSED PUPIL TRANSPORTATION ROUTING FOR
RUSSELL TOWNSHIP TO ELIMINATE
OVERLAPPING OF ROUTES

CHAPTER IV

SUMMARY AND RECOMMENDATIONS

I. SUMMARY

When the district one-room school was found to be inadequate, a new era of education began. It was discovered that the pupils could receive a broader scope of studies in a larger school, and thus be better equipped to meet the problems of life. This discovery also launched a new, important service to the pupils and to the school, pupil transportation. The beginning of this service was a problem that had to be tried before it could be perfected. Through the years it has been improved until it is now possible to transport the pupils of a township with about one-half the number of buses used thirty years ago. Pupil transportation still presents problems to be solved. Some of these are efficient operation, economy and correct routing.

The trustees have been able to make an education available to every child in their townships by routing a school bus along the road past the child's door. They have sacrificed efficiency at times to provide a conveyance. It was found in this survey that as many as three buses from the same township, traveled the same road. These overlappings were the most serious in Franklin and Russell Townships. The skip-stop method was used in these two town-

ships to avoid overloading the buses. The children living along township and county line roads were taken to a school in the township in which they lived regardless of the nearness of another school to their home. The buses covered by this survey were old but the trustees hesitated to levy an appropriation to buy new ones because pupil transportation was considered expensive.

The ownership of the bus was found to be an important item in the economy of transportation. It was more expensive under the joint ownership type of operation than under school corporation ownership. If the entire transportation unit were owned by the contractor, it would be still more expensive. Any change in the contract awarded the bidder entailed some added expense.

School bus routing is probably the basic feature of both efficiency and economy in pupil transportation. That feature has caused the trustees more difficulty than any other phase of the transportation problems. Shifting population causes the original routing to become obsolete. The overlapping of routes could be caused by this shifting of population.

II. RECOMMENDATIONS

Since no district schools remain and it is necessary to transport the rural children, the pupil transportation

should be conducted with as much efficiency and economy as possible. These two phases call for good administration. The administration should be in the hands of a person trained for the job. The teacher training schools should offer a course on pupil transportation and make this course a required subject for all desiring administrator's licenses. After having taken a course of this type, the public school principal should become the administrator of pupil transportation for his school.

The school bus bodies that have been in service ten or more years should be replaced with new and larger bodies. The six townships covered by this survey should band themselves together as a purchasing unit. There is economy in purchasing several units at one time. The buses should operate with capacity loads and no wasted mileage. The school corporation should purchase the entire unit and employ a competent person to operate it. The possibility of having a teacher drive the bus is worthy of consideration.

Contract bids should be let on a per mile basis instead of a per day wage. In this manner the cost of transportation would not increase during the tenure of the contract. The mileage added to one route would be offset by a decrease in another.

The school bus driver is required to submit a health certificate before he receives his contract. He should also

be neat and personable when driving the bus. Too many of our bus drivers go directly from their other work to take the children home. Especially is this true of the farmer-driver. The driver should have a pleasing personality. The child needs a smile to start him off to a day in school.

The school patrons are not as interested in pupil transportation as they should be. They do not know the cost of getting their children to and from school and do not understand the problems facing the trustee. They should be awakened.

There should be no overlapping of bus routes between counties nor between townships. A reciprocal agreement could be reached to eliminate this difficulty. Some overlapping in townships may be caused by the small number of roads leading to the school. However a careful study of routing could reduce this to a minimum. Figures 7 and 8 show suggested routes for Franklin and Russell Townships to eliminate overlapping of routes.

These recommendations would provide efficiency in transportation, economy to the public and be pleasant for the pupils transported.

BIBLIOGRAPHY

Featherstone, E. Glenn, "Transportation of Pupils, a Growing Problem," School Life, 31:4-6, January, 1949.

Hamilton, Otto T., compiler, School Law of Indiana, State Indiana Department of Public Instruction, Indianapolis, Indiana, Bulletin No. 154, 1946, 1008 pp.

Monroe, Walter S., Encyclopedia of Educational Research (New York: The Macmillan Company, 1950), 1520 pp.

Pupil Transportation, An Evaluation of the Indiana Public Schools (Indiana School Study Commission, Indianapolis, Indiana, 1949), 448 pp.

Pupil Transportation, The Forty-eight State School Systems, (Chicago, Illinois, The Council of State Governments, 1949), 245 pp.

Stapley, Maurice E., "Suggested Procedure for Securing Economical and Efficient Pupil Transportation," (unpublished Doctor's Dissertation, Division of Research and Field Service, Indiana University, Bloomington, Indiana, July, 1947, July, 1947, Volume 23), 24 pp.

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