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## FOREWORD

This bulletin was prepared by the Division of Transportation of the Iowa State Department of Public Instruction. It includes a brief history of public school transportation in Iowa as well as a summary of the statistical information which is reported annually to the department in connection with the public school transportation program in the state 。

An effort was made to illustrate the growth of the transportation program by comparing current data with that of the years from 1949 through the 1958-1959 school year. In a few instances complete data for 1949-1950 were not available so it was necessary to use figures covering the next earliest year in which the information was available. Certain information on school buses was available for the 1959-1960 school year, and this was used whenever possible.

We hope this report will be of interest to school administrators and that it will be of assistance to them as they plan improvements in their transportation program.


State Superintendent of Public Instruction

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## DIVISION OF TRANSPORTATION

## Responsibilities

The Division of Transportation has the responsibility for the general supervision of public school transportation in the state. The personnel of this division are available at all times for consultative service to county and local school officials, boards of education and other interested parties. Specific responsibilities include:

1. Inspecting annually all school buses or other vehicles used as school buses. This is done in cooperation with the Iowa Highway Safety Patrod.
2. Providing schools of instruction for school bus drivers each year.
3. Developing uniform standards and regulations in the several important phases of public school transportation.
4. Processing school district applications for transportation aid.

## Chief Functions

1. To assure the efficient operation and maintenance of school transportation equipment and the protection of the health and safety of the children transported.
2. To assure the adequate construction of school transportation equipment.
3. To establish qualifications for school bus drivers and issue the Iowa School Bus Driver's Permit to applicants who meet the qualifications.
4. To establish procedures and requirements for designating the school for attendance of all pupils residing in a district wherein the school is closed.
5. To establish standards for the location of bus routes.
6. To collect data on transportation in Iowa and other states for distribution to school officials。
"The past winter was a favorable time to test the question of transportation. One morning last winter, a visitor at Marathon saw six bob loads of country boys and girls unload before the schoolhouse. It was a sight that he was glad to have gone miles to see. They were a happy, contented lot of boys and girls, and gave evidence of arriving at the schoolhouse more comfortable than some who walked."

From these early beginnings transportation service grew rapidly as the following figures attest.

> Iowa School Reports Transportation Costs

| School Year | Total Cost |
| :--- | ---: |
| $1903-1904$ | $\$ 14,321.65$ |
| $1906-1907$ | $25,758.48$ |
| $1911-1912$ | $51,127.60$ |
| $1913-1914$ | $72,032.44$ |
| $1915-1916$ | $265,365.95$ |

Beginning in 1916 the Iowa School Reports include, for a number of years, together with the cost, the number of pupils transported and the number of "hacks" used to transport them。

| School Year | Number of <br> Pupils | Number of <br> Hacks | Cost |
| :--- | :---: | :---: | :---: |
| $1916-1917$ | 17,477 | 997 | $\$ 474,866,00$ |
| $1917-1918$ | 20,820 | 1234 | $668,654,50$ |
| $1918-1919$ | 23,161 | 1339 | $791,257.95$ |
| $1919-1920$ | 26,986 | 1575 | $1,147,996,41$ |
| $1920-1921$ | 37,696 | 2212 | $1,844,095,33$ |
| $1921-1922$ | 43,198 | 2494 | $1,724,646,21$ |

## INTRODUCTION OF AUTO-BUSES:

Motor-driven school buses made their appearance in Iowa in 1915. During the 1919-1920 school year there were 262 auto-buses reported in operation. The number increased to 574 in the 1921-1922 school year. The rest of the fleet, about 1920 , were horse drawn hacks.

The Biennial Report for the years 1916-1918 contains the following account of the appearance of "auto-buses":
"Transportation (1916-1917) is usually by wagon, although automobiles are used quite extensively by drivers at their own expense. One district purchased auto buses last year, and depended upon them entirely for transportation. They report that they were able to transport their children throughout the year, except one conveyance was not used for a single week. The district of Whiting provided part auto-truck and part wagons for transportation last year (1915-1916), but has this year purchased a sufficient number of auto buses to provide transportation for the entire district, and has offered its wagons for sale. The state paid practically $\$ 475,000$ for transportation for the year ending June 30, 1917, and an average of $\$ 60.83$ per month per driver, which was $\$ 8.00$ more than the previous year."
"Some districts provide wagons with heater attachments, but more of them depend upon proper clothing, robes and foot warmers. It has been found that the length of the ride need be no longer in a thirty-six section district than in a sixteen section district."

Transportation costs continued to increase as can be noted from the following table:

## State Transportation Costs

| School Year | Total Cost | School Year | Total Cost |
| :--- | :---: | :---: | :---: |
| $1926-1927$ | $\$ 2,046,589.39$ | $1940-1941$ | $\$ 1,649.448 .13$ |
| $1927-1928$ | $2,089.725 .83$ | $1941-1942$ | $1,735.239 .11$ |
| $1928-1929$ | $2,010,824.06$ | $1942-1943$ | $1,538,106.61$ |
| $1929-1930$ | $2,224,012.54$ | $1943-1944$ | $2,029.643 .30$ |
| $1930-1931$ | $2,125,353.65$ | $1944-1945$ | $2,380,681.54$ |
| $1931-1932$ | $1,911,576.79$ | $1945-1946$ | $3,201.947 .45$ |
| $* * * *$ | $1,706,828.67$ | $1946-1947$ | $3,987,291.92$ |
| $1938-1939$ | $1,655.278 .90$ | $1947-1948$ | $5,011.784 .50$ |
| $1939-1940$ | $*$ | $1948-1949$ | $5,608,962.55$ |

## STATE AID AND STATE SUPERVISION:

The Transportation Division of the Department of Public Instruction, was created by the 51st General Assembly in 1945. It was given general supervision over the transportation program in the state public schools.

The Division was organized and in operation early in the 1945-1946 school year.
The Biennial Report, covering the school year 1946-1948, has this to say on the slubject of public school transportation.
"For the first time in the history of the state some direction and semblance of order in the administration of transportation is possible. Unbridled competition, overlapping and inefficient operation of routes, together with little or no regard for pupil safety has been all too prevalent. The change will be slow and considerable tact must be exercised in bringing this situation under regulations in the interests of safety and economy. The introduction of state aid for transportation should serve to eliminate the wide difference in opportunity for education between rural and urban centers."

The appropriation for state aid was in the amount of $\$ 2,000,000$ per year beginning with the $1945-1946$ school year. This was increased to $\$ 3,000,000$ per year by the 53 rd General Assambly in 1949. The $\$ 3,000,000$ fund was made available for the 1948-1949 school year. The annual amount of state aid remains unchanged to the present time.

Aid was paid to transporting districts on the basis of a formula which attempted to equalize aid paid to the several districts according to: (1) Average number of pupils transported, (2) miles of bus travel per pupil per year, and (3) type of roads on which the buses traveled.

The 58th session of the General Assembly abolished the formula and stipulated that henceforth state aid should be paid at a flat rate of $\$ 30$ per pupil transported per year. However, in any case where the claim of a given high school district was in excess of $\$ 30$ per pupil for the 1957-1958 school year, the claim of that school district for each subsequent year prior to July 1 , 1962 , shall be on the basis of the same per pupil claim as for the 1957-1958 school year.

State aid to local districts for transporting school children has been a contributing factor to the growth of the transportation program in Iowa. This growth is illustrated by the data shown in the remainder of this report.
$\left.\begin{array}{lrr}\text { 1. Total number of school buses } \\ \text { in operation }\end{array} \quad \begin{array}{l}1949-1950 \\ \text { 2. Number of other vehicles used } \\ \text { as school buses }\end{array}\right)$

[^0]Table I and Chart I show the per cent of the total reimbursement claims paid. The decrease each year has ranged from 1.307 per cent in 1953-54 to 5.707 per cent in 1950-1951. The decrease in the 1958-59 school year from the previous year was 5.577 per cent.

From the table it will also be noted that the number of districts filing claims for reimbursement has declined by nearly forty-two per cent during the past ten years.

TABLE I
NUMBER OF DISTRICTS RECEIVING TRANSPORTATION REIMBURSEMENT
AID AND PER CENT OF TOTAL AMOUNT OF CLAIMS PAID

| Year | No. of Districts | Per Cent Paid |
| :--- | :--- | :--- |
| $1949-1950$ | No record <br> available <br> 2300 | 92.70 |
| $1950-1951$ | 2117 | 86.993 |
| $1951-1952$ | 2044 | 82.696 |
| $1952-1953$ | 1890 | 77.360 |
| $1953-1954$ | 1818 | 76.053 |
| $1954-1955$ | 1764 | 71.314 |
| $1955-1956$ | 1661 | 67.458 |
| $1956-1957$ | 1493 | 64.189 |
| $1957-1958$ | 1241 | 60.205 |

CHART I

PER CENT OF'
TOTAL RETMBURSEMENT CI.ATMS PAID


Table II and Chart II show the per cent of all pupils transported to public schools in Iowa. The per cent has increased each year during the past ten years, and the increase has ranged from .41 per cent in 1952-1953 to 1.63 per cent in 1958-1959.

TABLE II
PER CENT OF PUPILS TRANSPORTED

|  | Total Public <br> School <br> Year | Enrollment | Per Cent of <br> Transported |
| :--- | :---: | :---: | :---: |
| All Pupils |  |  |  |
| $1949-1950$ | 455,132 | Transported |  |
| $1951-1951$ | 461,514 | 127,669 | 28.05 |
| $1952-1953$ | 469,887 | 145,114 | 29.27 |
| $1953-1954$ | 488,460 | 149,150 | 30.12 |
| $1954-1955$ | 500,846 | 157,318 | 30.53 |
| $1955-1956$ | 516,543 | 177,554 | 31.41 |
| $1956-1957$ | 530,036 | 184,660 | 32.43 |
| $1957-1958$ | 542,842 | 197,091 | 33.41 |
| $1958-1959$ | 552,904 | 211,045 | 34.01 |

## CHART II

PER CENT OF ALL PUPILS TRANSPORTED


Table III shows the average operating cost per bus for the years 1952-1953 and 1958-1959. It will be noted that the average operating cost per bus increased about $\$ 300.00$ during this six-year period. Excluding depreciation, however, the increase was only $\$ 200.00$.

TABLE III
OPERATING COSTS
SCHOOL OWNED BUSES
195.8-1959

1952-1953

Depreciation

| Driver's Salaries | 4,311,495.05 |
| :---: | :---: |
| Gasoline | $\begin{aligned} & 1,632,912.60 \\ & (6,372,740.9 \text { gals. }) \end{aligned}$ |
| Lubricants | 106,638.17 |
| Tires | 275,965. 55 |
| Repairs | 1,091,3,50.82 |
| Insurance | 253,227.14 |
| Bus Garage | 191,853.90 |
| Other Expenses | 368,733.17 |
| Total | \$11,044.554.79 |

$$
\begin{aligned}
& \$ 2,812,378.39 \\
& 4,311,495.05 \\
& 1,632,912.60 \\
& (6,372,740.9 \text { gals. })
\end{aligned}
$$

$106,638.17$
275,965. 55
$1,091,3,50.82$
253,227.14
191,853.90
368,733.17
$\$ 11,044.554 .79$
$\$ 6,827,592.95$

Number of buses -
4,669
$\$ 2,365.51$
$\$ 2,067.09$
cost per bus -
Average operating
cost per bus -
$\$ 1,763.16$
$\$ 1,570.14$
(Excluding depreciation)

The number of pupils transported by school bus as well as the total number transported has increased each year. It will be noted from Table IV that the number of pupils transported by parents decreased by approximately sixty-five per cent in the ten-year period. There has been no significant change in the number transported by street car or common carrier.

TABLE IV

NUMBER OF PUPILS
TRANSPORTED

| Year | School Bus | Parent | Street Car | Comm. Carrier | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1949-1950 | 112,325 | 11,638 | 2,468 | 1,238 | 127,669 |
| 1958-1951 | 120,958 | 9,873 | 3,245 | 1,038 | 135,114 |
| 1951-1952 | 129,502 | 8,198 | 2,355 | 1,521 | 141,576 |
| 1952-1953 | 137,954 | 7,283 | 2,464 | 1,449 | 149,150 |
| 1953-1954 | 147,238 | 6,045 | 2,608 | 1,427 | 157,318 |
| 1954-1955 | 157,817 | 5,545 | 2,831 | 1,361 | 167,554 |
| 1955-1956 | 167,590 | 5,174 | 2,817 | 1,554 | 177,135 |
| 1956-1957 | 175,318 | 5,147 | 2,849 | 1,346 | 184,660 |
| 1957-1958 | 188,147 | 4,718 | 2,873 | 1,353 | 197,091 |
| 1958-1959 | 202,388 | 4,130 | 3,122 | 1,405 | 211,045 |

TOTAL NUMBER OF PUPILS TRANSPORTED

School Bus
All Vehicles
7 (2xy


YEAR
-14-

Table $V$ shows that the average length of bus routes increased from 19.95 miles in 1949-1950 to 24.26 miles in 1958-1959, or 22 per cent. While the number of routes showed an increase of about 43 per cent in this period, the number did not keep pace with the additional one trip miles which increased by 74 per cent.

TABLE V
AVERAGE LENGTH OF BUS ROUTES

| Year | One Trip Miles | No. of Routes | Average Length In Miles |
| :---: | :---: | :---: | :---: |
| 1949-1950 | 69,386.68 | 3478 | 19.95 |
| 1950-1951 | 73,942.25 | 3637 | 20.33 |
| 1951-1952 | 78,586.08 | 3727 | 21.09 |
| 1952-1953 | 84,136.39 | 3947 | 21.32 |
| 1953-1954 | 89,772,25 | 4116 | 21.81 |
| 1954-1955 | 96,387.99 | 4326 | 22.28 |
| 1955-1956 | 100,824.79 | 4481 | 22.50 |
| 1956-1957 | 106,622.78 | 4641 | 22.97 |
| 1957-1958 | 113,813.43 | 4899 | 23.23 |
| 1958-1959 | 120,852.55 | 4982 | 24.26 |

Table VI shows that the one trip mileage of school buses increased each year from 69, 386.68 miles in 1949-1950 to $120,852.55$ miles in 1958-1959. The percentage of increase was 74 .

The data also reveal the improvement in Iowa roads. In 1949-1950 the buses traveled roads of which 13.7 per cent were dirt, 13.8 per cent hard surfaced, and 72.5 per cent gravel compared with only 3.1 per cent of dirt roads, 19.3 per cent hard surfaced, and 77.6 per cent gravel roads in 1958 -1959.

TABLE VI
ONE TRIP MILEAGE AND TYPE OF ROADS

| Year | Miles Dirt | Miles Gravel | Miles Hard Surfaced | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1949-1950 | 9,508.30 | 50,314.83 | 9,563.55 | 69,386,68 |
| 1950-1951 | 8,977.25 | $54,820.31$ | 10,144.69 | 73,942.25 |
| 1951-1952 | 9,080.90 | 58,351.86 | 11,420.57 | 78,586.08 |
| 1952-1953 | 8,331.93 | 63,891. 205 | 11,913.25 | $84,136.39$ |
| 1953-1954 | 7,287.87 | 69,728,98 | 12,755.39 | 89,772.25 |
| 1954-1955 | $6,866.05$ | 75,656.91 | 13,865.03 | 96,387.99 |
| 1955-1956 | 5,618.32 | 79,896.17 | 15,310.30 | 100,824.79 |
| 1956-1957 | 5,081.2 | 84,163.76 | 17,377.82 | 106,622.78 |
| 1957-1958 | 4,523.7 | 89,399.19 | 19,890.54 | 113,813.43 |
| 1958-1959 | 3,758.7 | 93,787.01 | 23,325.84 | 120,852.55 |

It can be noted from Table VII that the yearly miles traveled by Iowa school buses increased from over 24 million miles in 1949-1950 to over 41 million miles in 1958-1959. This represents an increase of 70 per cent.

## TABLE VII

YEARLY MILES TRAVELED

## Year

1949-1950
1950-1951
1951-1952
1952-1953
1953-1954
1954-1955
1955-1956
1956-1957
1957-1958
1958-1959

| Privately Owned Equipment | Total |
| :---: | :---: |
| 3,995,152.38 | 24,473,401.68 |
| 3,916,365.67 | 25,930,423.38 |
| 2,692,595.40 | 28,053.163.60 |
| 3,057,911. 20 | 29,873,727. 30 |
| 3,388,021.04 | 32,045,686.14 |
| 3,280,828.00 | 33,843,001.04 |
| 3,036,704.90 | 35,355,239.90 |
| 2,835,415.95 | 37,160,132.71 |
| No Record | 39,169,436.00 |
| No Record | 41,544,842.00 |

Table VIII shows that the total cost of pupil transportation has nearly doubled since 1949-1950. Cost of school bus transportation increased by 105 per cent compared with an increase of 442 per cent in the cost of street car transportation and 156 per cent for common carrier. Cost of parent transportation decreased by 48 per cent in the same period.

TABLE VIII
TOTAL COST

| Year | School Bus | Parent | Street Car |  | Comm。Carrier | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1949-1950$ | $\$ 5,812,658.61$ | $\$ 402,672.03$ | $\$ 22,089.61$ |  | $\$ 25,086.96$ | $\$ 6,262,507.21$ |
| $1950-1951$ | $6,420,742.45$ | $444,188.69$ | $42,574.65$ |  | $26,212.59$ | $6,933,718.38$ |
| $1951-1952$ | $7,191,496.83$ | $410,864.71$ | $38,569.30$ |  | $25,820.37$ | $7,666,751.21$ |
| $1952-1953$ | $7,852,139.55$ | $382,411.80$ | $30,485.36$ |  | $44,878.21$ | $8,309,914.92$ |
| $1953-1954$ | $8,487,396.36$ | $312,948.09$ | $45,922.46$ |  | $59,135.13$ | $8,905,402.04$ |
| $1954-1955$ | $8,922,836.53$ | $298,955.04$ | $77,146.44$ | $59,582.39$ | $9,358,520.80$ |  |
| $1955-1956$ | $9,456,261.84$ | $277,513.15$ | $79,095.20$ |  | $69,043.95$ | $9,971,914.14$ |
| $1956-1957$ | $10,092,282.19$ | $269,616.95$ | $75,478.54$ |  | $56,522.35$ | $10,493,900.03$ |
| $1957-1958$ | $10,837,313.43$ | $253,698.05$ | $102,384.60$ |  | $57,469.35$ | $11,250,865.43$ |
| $1958-1959$ | $11,922,332.80$ | $208,506.37$ | $119,650.37$ |  | $64,315.29$ | $12,314,804.83$ |

It will be noted from Table IX that the cost per pupil for all means of conveyance increased from $\$ 54.96$ in $1949-1950$ to $\$ 62.89$ in 1958 1959, or a percentage increase of 15.3 .

The cost per pupil transported by school bus increased 10.6 per cent during this period compared with increases of 38.3 per cent for parent transportation, 322.4 per cent for street car, and 144.2 per cent for common carrier transportation。

TABLE IX

COST PER PUPIL

| Year | School Bus | Parent | Street Car | Common Carrier | Combined |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1949-1950 | 57.20 | 39.97 | 11.81 | 20.27 | 54.56 |
| 1950-1951 | 59.114 | 50.217 | 19.595 | 27.519 | 57.49 |
| 1951-1952 | 61.61 | 56.52 | 19.00 | 48.18 | 60.59 |
| 1952-1953 | 62.37 | 57.74 | 18.89 | 35.66 | 61.41 |
| 1953-1954 | 62.45 | 56.13 | 26.29 | 46.23 | 58.23 |
| 1954-1955 | 61.45 | 58.41 | 41.54 | 48.93 | 61.01 |
| 1955-1956 | 61.75 | 57.89 | 35.66 | 47.82 | 61.17 |
| 1956-1957 | 61.97 | 56.59 | 34.63 | 43.66 | 61.34 |
| 1957-1958 | 61.87 | 57.11 | 46.42 | 46.64 | 61.44 |
| 1958-1959 | 63.29 | 55.27 | 49.89 | 49.47 | 62.89 |

Table $X$ shows that the cost per mile has increased about five cents since 1949-1950. This is not surprising, however, in view of increased salaries paid to drivers, and the rising costs of tires, other equipment, and repairs.

TABLE X
COST PER MILE

Year
1949-1950
1950-1951
1951-1952
1952-1953
1953-1954
1954-1955
1955-1956
1956-1957
1957-1958
1958-1959

Cost Per Mile
.237
.247
. 256
.271
. 264
.263
.270
.271
.276
.286

## TRANSPORTATION COSTS

BEFORE AND AFTER REORGANIZATION


| School A | $8,917.62$ | 62.71 | 142.19 |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| School B | $7,247.36$ | 71.91 | 100.77 |  |  |  |
| School C | $3,649.65$ | 53.83 | 67.80 |  |  |  |
| Totals | $19,814.63$ | 62.81 | 301.76 | $26,272.35$ | 59.40 | 442.27 |

1955-1956
$\begin{array}{llll}\text { DISTRICT NO. } 3 & 32,247.79 \quad 53.86 \quad 598.72\end{array}$

| School A | $15,388.00$ | 63.91 | 240.77 |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| School B | $6,798.48$ | 43.44 | 156.50 |  |  |  |
| School C | $6,342.03$ | 67.63 | 93.77 |  |  |  |
| Totals | $28,528.51$ | 58.32 | 491.04 | $32,247.79$ | 53.86 | 598.72 |

1956-1957
$\begin{array}{llll}\text { DISTRICT NO. } 4 & 32,062.19 \quad 62.04 \quad 516.77\end{array}$

| School A | $9,146.19$ | 72.56 | 126.05 |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| School B | $4,926.54$ | 46.14 | 106.77 |  |  |  |
| School C | $6,797.07$ | 68.97 | 98.55 |  |  |  |
| Totals | $20,869.80$ | 62.56 | 331.37 | $32,062.19$ | 62.04 | 516.77 |

TOTAL OF ALL
FOUR DISTRICTS

$$
91,642.42 \quad 63.31 \quad 1,446.28 \quad 117,321.68 \quad 59.03 \quad 1,997.26
$$

Total costs increased..... \$25,679. 26
Total Transported increased ... 550.98
Total cost per pupil decreased. . $\$ 4.28$

Table XII and Chart IV show there are approximately thirty-six per cent more school buses now than in 1949-1950. The number of privately owned school buses decreased from 562 in 1949-1950 to only 227 in 1959-1960 which represents a drop of about sixty per cent. In the early years other vehicles used in transporting pupils were for the most part privately owned. In the past few years, however, more and more schools are purchasing station wagons which can be used very economically on kindergarten routes or as shuttle buses. These vehicles can also be used for other school purposes.

TABLE XII

## VEHICLES

| Year | School <br> Owned | Privately Owned | School <br> Owned | Privately Owned | School <br> Owned | Privately Owned |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1949-1950 | 2568 | 562 | 0 | 212 | 2568 | 774 |
| 1950-1951 | 2822 | 528 | 0 | 159 | 2822 | 687 |
| 1951-1952 | 3373 | 162 | 9 | 139 | 3382 | 301 |
| 1952-1953 | 3303 | 383 | 7 | 117 | 3310 | 500 |
| 1953-1954 | 3497 | 412 | 8 | 107 | 3505 | 519 |
| 1954-1955 | 3685 | 420 | 8 | 110 | 3693 | 530 |
| 1955-1956 | 3929 | 358 | 20 | 102 | 3949 | 460 |
| 1956-1957 | 4109 | 345 | 14 | 89 | 4123 | 434 |
| 1957-1958 | 4279 | 240 | 76 | 102 | 4355 | 342 |
| 1958-1959 | 4451 | 220 | 118 | 127 | 4569 | 347 |
| 1959-1960 | 4693 | 227 | 172 | 96 | 4865 | 323 |

NUMBER OF VEHICLES USED IN TRANSPORTING PUPILS


Table XIII and Chart $V$ show a comparison of the per cent of the total buses in operation of varying seating capacity ratings for the school years 1951-1952 and 1959-1960.

It will be noted that during the 1951-1952 school year the 42 -passenger bus was by far the most popular followed by the 36 -passenger vehicle。 Today, the 48 -passenger bus is considerably more popular.

There is a definite trend in the direction of the larger buses. Where the road surfaces are adequate and the concentration of pupils dense enough so as not to make the runs too long, the larger bus can be operated at a considerable saving on the per pupil cost of transportation.

TABLE XIII

A COMPARISON OF SIZE OF SCHOOL BUSES

> 1959-1960

1951-1952

| Capacity | Number | Per Cent | Number | Per Cent |
| :---: | :---: | :---: | :---: | :---: |
| 24 or less | 48 | . 97 | 188 | 5.45 |
| 30 | 53 | 1.08 | 184 | 5.33 |
| 36 | 575 | 11.69 | 1209 | 35.06 |
| 42 | 1292 | 26. 26 | 1296 | 37.58 |
| 48 | 2242 | 45.57 | 469 | 13.60 |
| 54 | 553 | 11.24 | 16 | . 46 |
| 60 | 115 | 2.34 | 10 | - 29 |
| 63 and up | 18 | .37 | 0 | 0 |
| Misc. Sizes | 24 | .48 | 77 | 2. 23 |
| Total Buses | 4920 |  | 3449 |  |

CHART V
SIZE OF BUSES


Table XIV and Chart VI show the age distribution of school buses being used in Iowa during the 1959-1960 school year.

It is interesting to note that more than one-half of the 4920 buses are less than six years old, and nearly three-fourths of them fall within the depreciation period of seven years. Only 289, or 5.9 per cent, are older than 10 years.

TABLE XIV

AGE OF SCHOOL BUSES
1959-1960


CHART VI
AGE OF SCHOOL BUSES
4920 Buses 1959-1960

Per Cent


Age in Years

Table XV reveals that during the past five years there has been a steady increase in the number of accidents involving school buses. In 1954-1955 there was one accident every 497,691 miles compared with one accident every 151,623 miles in 1958-1959. The average for the five-year period was one accident for every 210,194 miles traveled。

The table also shows that the number of injured decreased in only one of the five years. In 1954-1955 there was one injury for every 890,605 miles compared to one for every 264,617 miles in 1958-1959. For the five year average, there was one person injured for every 450,777 miles traveled. There were six deaths in the five-year period.*

There has been considerable improvement in reporting procedures for accidents during the five-year period. Not all of the accidents were reported to the Division of Transportation in the earlier years which accounts in part for the alarming increase in the accident rate.

TABLE XV

## SCHOOL BUS ACCIDENTS

| Year | Total Mileage | No. of Accidents | Miles Per Accident | No. of Injuries | Miles Per Injury | No. of Deaths* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1954-1955 | 33,843,001.04 | 68 | 497,691 | 38 | 890,605 | 2 |
| 1955-1956 | 35,355,239.9 | 134 | 263,845 | 70 | 505,075 | 1 |
| 1956-1957 | $37,160,132.71$ | 185 | 200,865 | 68 | 546,473 | 1 |
| 1957-1958 | 39,169,436 | 227 | 172,552 | 84 | 466,303 | 2 |
| 1958-1959 | 41,544, 842 | 274 | 151,623 | 157 | 264,617 | 0 |
| 5-year |  |  |  |  |  |  |
| average | 37,414,530 | 178 | 210,194 | 83 | 450,777 | 1.2 |

*Only one of the six fatalities was a pupil in the public schools. His death occurred while crossing the road after he had been delivered to his regular bus stop.

Table XVI reveals that of the 6,284 school bus drivers in Iowa only 4.4 per cent are women. Student drivers comprise 4.7 per cent of the total number of drivers.

TABLE XVI

SCHOOL BUS DRIVERS 1959-1960

|  | Number | Per Cent |
| :--- | ---: | :---: |
| Male Drivers | 6005 | 95.6 |
| Female Drivers | 279 | 4.4 |
| Total Drivers | 6284 | $-7 .-$ |
| Regular Drivers | 4923 | 78.3 |
| Substitute Drivers | 1361 | 21.7 |
| Student Drivers | 296 | 4.7 |
| Mechanic-Drivers | 295 | 4.7 |


[^0]:    * 1950-1951 school year

