

Special Bulletin No. 229

January, 1933

**RURAL SCHOOL ORGANIZATION
IN MICHIGAN**

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SECTION OF ECONOMICS

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RURAL SCHOOL ORGANIZATION IN MICHIGAN

F. M. THRUN

Introduction

At a time when all governmental expenditures are being critically scrutinized by the public and by legislative bodies, with the purpose of effecting economies and reductions, public school expenditures come prominently to view because no other governmental function of the State requires so large an outlay of funds as does the public school system. Along with other governmental costs, public school expenditures in the State have increased rapidly in the past few decades until in 1930 the annual outlay for this service amounted to approximately 135 million dollars.¹

Appendix Tables I and II present a rather comprehensive picture of the rise in school costs and school population since 1900. Appendix Table III presents some of these data for the decade 1920-1930 in the form of percentages of the year 1920. Costs have risen more rapidly than school attendance and this can be accounted for in part by the general rise in the price level over the period covered and, in part by the increased percentage of high school attendance and the improved quality, on the whole, of the educational program.

The portion of the increase in cost of public school education which has been due to a demand for a richer and better educational program has probably been justified. At any rate, this phase of the school cost problem is more properly left for discussion to persons occupying positions of leadership and trust in the field of education.

However, assuming the quality of the educational offering as now given to be necessary and desirable, the question arises whether the present form of organization and administration of the school system of the State is efficient in rendering this educational service or whether some other form of organization could be devised which would result in economies as well as improvement in the service.²

The one-room school districts are most frequently cited as proof that some organizational change in the public school system is desirable. Of the 6,775 school districts in the State, approximately 5,138 are one-room school districts. In the year 1930-31, 549 of these schools operated with an average daily attendance of 10 or less, and an average operating cost per pupil of \$13.95 per month. At the other extreme, there were 220 one-room schools with an average daily attendance above 40, having an operating cost per pupil of \$3.96 per month. It thus appears that

¹ Includes debt service.

² There are many excellent bibliographies of the material in this field. The following two should prove helpful to the reader: "Bibliography on School Finance"—by Alexander and Covert—United States Dept. of the Interior—Bul. No. 15, 1932; and "Organization and Control"—National Education Association, Research Division, May, 1932, Washington, D.C.

these extremes point to an inefficient use and distribution of school facilities.

Anther problem, largely due to the independent district system, is the great variation in tax burdens imposed upon the taxpayers in the different school districts. Even when there is no apparent difference in the quality of the educational service or the efficiency in rendering the service, the variation in tax burdens between local districts is great. Nor is this condition remedied by the present method of distributing state funds to local districts.³

The Michigan Legislature of 1929, created a state educational survey commission to inquire into these problems. This commission, because of the limited amount of funds at its disposal, centered its attention on the problem of equalizing the school taxes and recommended a plan for this purpose to the legislature. In its report, however, the commission had the following to say regarding the present district organization.⁴

“The two largest items in the cost of a one-room school are the teacher’s salary and the building. A county board of education by rearranging thy districts could reduce the number of buildings necessary and cut down the number of teachers required. The larger classes resulting would be advantageous to the pupils and would permit better supervision.”

“The beginning of a county system of education should be set up at once. This should be accompanied by a continuance of the present study of school finances, together with a study of county school district organization of administration.”

The recommendation of this commission with respect to continuing the study of school finances, together with a study of school district government, was acted upon by the legislature of 1931 by including “School District Government” when it created the “State Commission of Inquiry into County, Township, and School District Government.” This study and report has been prepared in cooperation with this last named commission.

³ For more complete discussion of this subject, see “School Financing In Michigan,” Special Bulletin No, 212. Agr. Exp. Sta., Michigan State College, 1931.

⁴ Report of the State, Educational Survey Commission, March, 1931, p. 18.

I. ORGANIZATION OF THE SCHOOL SYSTEM OF MICHIGAN⁵

The District System

The local school districts in Michigan are a creation of the legislature; the state constitution vests complete authority and control of the public schools in that body. Article II, Section 9, of the Constitution reads in part:

“The legislature shall continue a system of primary schools, whereby every school district in the state shall provide for the education of its pupils without charge for tuition; . . . “

And the first Constitution of the state, adopted in 1835, said in part:

“The legislature shall provide for a system of common schools by which a school shall be kept up and supported in every school district at least three months in every year; . . . ”

In compliance with these constitutional mandates, the legislature has from time to time established various kinds of school districts so that to date the following types are authorized: primary districts, graded districts, township unit districts, rural agricultural districts (consolidated districts), county agricultural high school districts, and city districts.

Primary School Districts

The foundation for the present district system of schools in Michigan was laid in the early territorial legislation. In 1809, the territorial government provided for the division into school districts of all settled portions of the territory, and in 1819 an act was passed requiring each township board to divide the township into school districts. After Michigan was admitted as a state, an act passed in 1837 and revised in 1838 provided for the subdivision of the townships into school districts, no district to exceed nine sections of land. The primary districts which exist today are the result of this legislation.

City School Districts

Soon after the primary district system was established, it became apparent that some other form of organization was necessary in order to meet efficiently the requirements of the cities. So, in 1842, the city of Detroit was permitted to unite all of the districts within its area into single union district. In 1846, this privilege was extended to other cities in a general act. Today, there are four classes of city school districts, the basis of classification being the population. These classes are: fourth class, population 500 to 10,000; third class, population 10,000 to 125,000; second class, population 125,000 to 500,000; and first class, population over 500,000. These classes of districts differ from each other in the powers of the school districts and

⁵ “The Legal and Constitutional Basis of a State School System”—by J. B. Edmonson, Public School Publishing Co., Bloomington, Ill., 1926; an excellent treatise of the historical and legal phases of the development of the district system in Michigan.

school officers and in the qualifications of school electors.

Graded School Districts

A primary district which has a school census of not less than 75 and a total population of less than 10,000 may elect to become a graded school district. In this type of district, the board consists of five instead of three members and is given the power to grade the school children and to establish and maintain a high school. This legislation was first passed in 1859.

Incorporated villages located in a county whose population is over a million may be formed into single districts and are governed by the laws applicable to graded districts.

Township Unit Districts

As the name implies, township districts are school districts which in general are coterminous with the township. Legislation permitting this form of organization in the Upper Peninsula was passed in 1891 and extended to the rest of the State in 1909. Any village or city over 15,000 in population is exemption the operation of the act but may become part of a township unit upon a majority vote of both the incorporated place and of the remainder of the affected territory.

Rural Agricultural School Districts

Rural agricultural school districts, more often called consolidated districts, are formed by the combination of three or more contiguous primary or graded school districts. A majority vote of the qualified school electors of the territory desiring to combine is required in each of the districts in order to effect a consolidation. This legislation was first passed in 1917 and amended in 1919 and 1921. The law requires the school board of a consolidated district to furnish transportation to the consolidated school to all children living more than a mile from the school, and further requires the teaching of certain vocational subjects.

Table I.—Number of school districts of each type and the average daily attendance for each group. School year 1930-31.

	Number of Districts	A.D.A.
Primary	5,526	111,385.4
Graded	961	219,260.1
Third Class Cities	39	192,113.9
Second Class Cities (Flint and Grand Rapids)	2	53,452.8
First Class City (Detroit)	1	233,719.0
Township Units	167	37,513.9
Rural Agricultural (Township Units)	41	11,722.0
Rural Agricultural	38	10,791.2
Total	6,775	869,958.3

County Agricultural High Schools

In addition to the Rural Agricultural School Act, there is an act on the statute books passed in 1907 which permits the establishment of a county agricultural high school, for which a school board is elected by the county and the tax assessed against the county. There are no schools of this type in existence at the present time.

From the brief description of the various kinds of school districts authorized by the legislature, it is apparent that the legislature has from time to time attempted to solve this phase of the problem of school organization. Table I which lists the number of districts of each type for the school year 1930-1931 shows that relatively little use has been made of this permissive legislation in the rural districts of the State, as is indicated by the large number of one-room or primary school districts still in existence. This raises the question whether this gradual development through permissive legislation has been effective in giving to the State an efficient form of public school organization. In order to obtain the necessary facts to attack this problem, a field survey was conducted in a selected list of counties.

II. RURAL SCHOOL SURVEY IN SELECTED COUNTIES

Method of Survey

The immediate purpose of the field survey was to obtain a "spot map" of each school district showing the exact residence location of each school child and to obtain a physical inventory of the school building and educational equipment.

The general financial and child accounting data used in the study were obtained from the annual reports of the school districts rendered to the Superintendent of Public Instruction. All other information was obtained through visits to the schools and from the various county school commissioners.

On the basis of the field data obtained, rural schools were divided into the three groups, standard schools, schools which approached standard and poor schools. The standard schools are those which have fulfilled the state requirements for such schools and have been awarded their standard plates. The list of the more important of the physical requirements follows:⁶

A—Yards and Outbuildings

1. Ample ground of at least one-half acre.
2. Some trees and shrubs.
3. Good approaches to the house.
4. Indoor toilets, or two well kept, widely separated sanitary toilets.
5. Convenient fuel house.

⁶ Taken from the list of requirements for a standard school used by the Department of Public Instruction.

B—The Schoolhouse

1. House well built, in good repair, and painted.
2. Good foundation.
3. Well lighted. Glass area should be 20 per cent of floor area, and must be at least 16 per cent. Windows should be set in bank at left of pupils.
4. Attractive interior decorations.
5. Good blackboards, some suitable for small children. Slate recommended. Painted or slated cloth, paper, wood, or plaster cannot be approved.
6. Heated with ventilating floor furnace or basement furnace which brings clean air in through the furnace and removes foul air from room.
7. Hardwood floor. Interior clean and tidy.

C—Furnishings and Supplies

1. Properly placed desks suitable for children of all ages.
2. Good teacher's desk.
3. Good bookcases.
4. A good collection of juvenile books suitable as aids to school work as well as for general reading.
5. Sets of good maps, a globe, a dictionary, thermometer, sanitary water supply.

In classifying schools which were not standard, the following factors were taken into consideration: the general state of repair of the building, including the condition of the floors, walls, seating equipment, and cloakroom; the lighting, heating, and ventilating system the sanitary conditions; and the nature and condition of the grounds and playground equipment.

In general, the schools in the second group had fulfilled more than 50 per cent of the standard requirements. The third group had met few or none of these requirements. There appeared to be such a wide divergence in the third group or poor schools that it became advisable to classify them again as fair, poor, and very poor schools.

A clearer picture of the meaning of these quality classes of rural buildings may be obtained from a description of a school typical of each group.

Second Group

The school⁷ has a yard an acre in area, well drained and graded. There are six large shade trees, a playground, and permanent play equipment including swings and bars. The outdoor toilets are in need of repair and are in poor condition. The 40-year-old frame building is in good state of repair, has two separate cloakrooms, and hardwood floors. The room is adequately lighted by a bank of windows, and electric lights are installed. The heating and ventilating system is new. The seats are new and adjustable. The blackboard is painted wall board but in good condition. The library includes the World Book series and 180 general library volumes.

⁷ Leroy 2 Fr. —Ingham County.

This school, with the exception of its sanitary equipment and blackboards, has passed most of the state requirements for standard schools.

Third Group

Fair:

The school⁸ yard, (one acre) has no trees and no care other than drainage. The playground is level, but there is no outdoor play equipment. The outdoor toilets are poorly maintained. The 30-year-old brick building is in good repair; its floors are hardwood. The room is inadequately lighted from three sides by eight windows; there is no provision for artificial lighting. A good heating and ventilating furnace is located in a back corner. The seats are non-adjustable but are in fair condition. A small entry hall is used for a cloakroom. The slate blackboards are adequate in amount. The library contains 200 volumes aside from two sets of general reference books. The maps and globe are of recent date.

Poor:

The school⁹ yard is very small, quarter of an acre and poorly drained. There is no adequate play space nor play equipment. The outside toilets are newly built and in good condition. The frame building is 60 years old and is in fair repair. It has two separate unheated cloakrooms; the floors are softwood with wide boards. The room is adequately lighted but it has windows on three sides, resulting in bad cross lighting. There are also electric lights. A jacketed stove is located in the back of the room and no provision is made for ventilation. There are 11 new adjustable seats and a row of old double seats. The blackboards are fibre. The educational equipment, (maps globe, and library) is very good.

Very Poor

This school¹⁰ is located in a quarter acre clearing in the woods, which location affords much shade but no level playground. The outside toilets are in very poor condition. The 60-year-old frame building is in fair state of repair. The floors are softwood. The room is inadequately lighted from windows on two sides with no provision for artificial light. The unjacketed stove is in the center of the room. There is no system of ventilation. The seats are old and non-adjustable. There are no cloakrooms, and the two sections of slate boards are very inadequate.

The counties of Ingham, Cass, Saginaw, Antrim, Roscommon, and Marquette were chosen for the survey since each seemed to represent a sample of the various types of school situations to be found in the State. The number of counties that could be selected for detailed study in this project was necessarily limited, both on account of expense and time.

⁸ Chesaning 10—Saginaw County.

⁹ Williamston 6—Ingham county.

¹⁰ Howard 8 Fr. —Cass County.

Ingham County

Ingham County, located in the south central part of the State, was set as the first county to be surveyed, since in this county there is to be almost every type of school organization authorized under the school. The county contains one large city and numerous small cities and villages. Appendix Table IV shows the distribution of school attendance and by types of districts for the year 1930-31.

The spot map presents a visual picture of the survey results and brings to light many interesting facts regarding the school situation in the county. To those not familiar with the district system as it exists in Michigan, probably the first fact of interest is the irregularity of the district boundaries. Primary school districts may be established or altered by the township board, which consists of the township supervisor, the two senior justices of the peace, and the township clerk.

Of greater significance is the great variation of the quality of school facilities in the rural schools. Table II shows in tabular form the distribution of the one-room schools according to quality classes. It will be noted that of the 97 one-room schools in operation in the county, 59 fall in the "poor" class, and of these, 20 are classed as "very poor."

Table II.—Distribution of one-room schools in Ingham County by quality class.

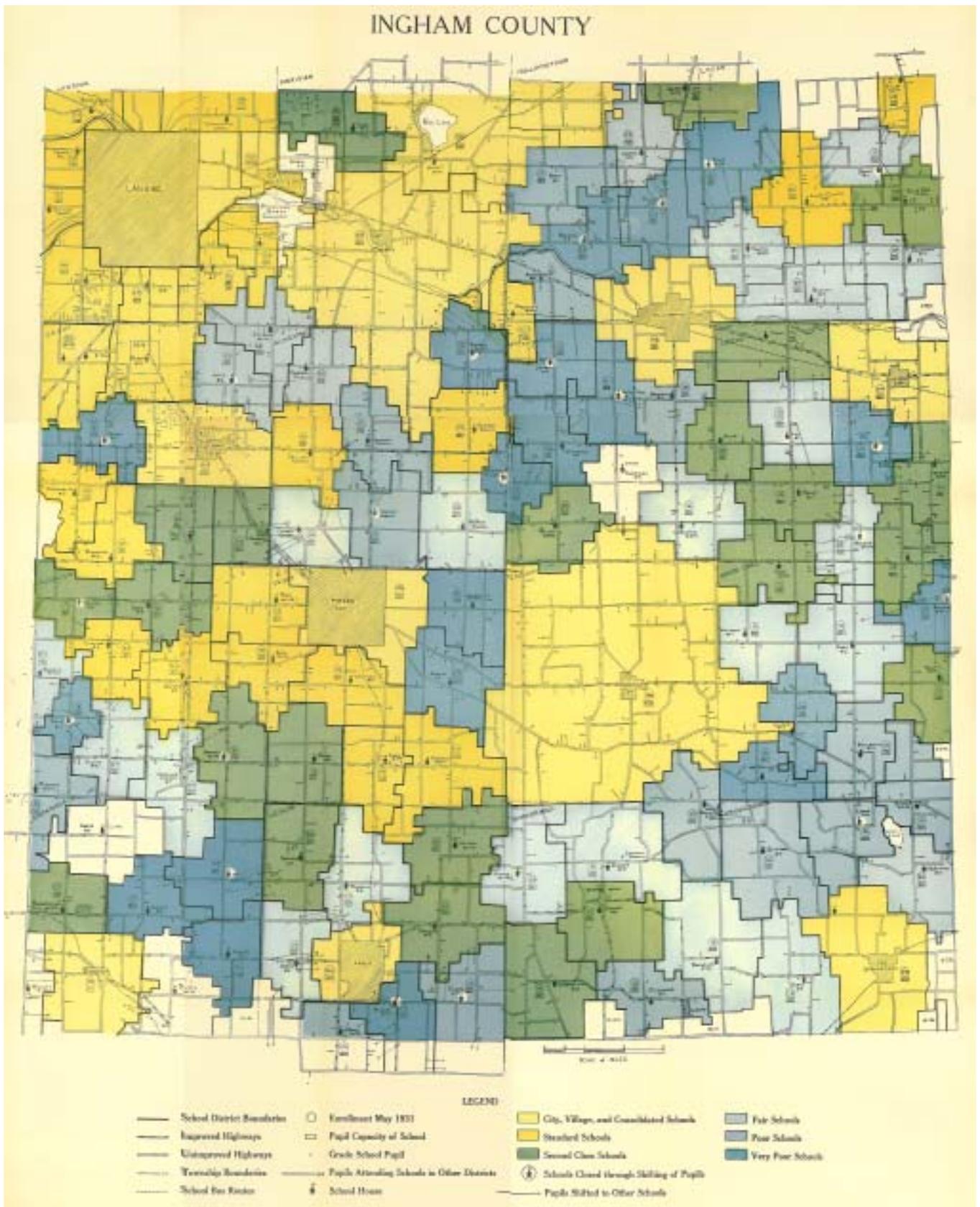
Quality Class		Number of Schools
Standard (yellow)	.....	16
Second Class (green)	.....	22
Poor Class (blue)		
Fair (light blue)	25	
Poor (medium blue)	14	59
Very Poor (dark blue)	20	
Total One-rooms	.....	97

An attempt was made to obtain the age of each school building. In some cases, this figure could be determined exactly, while in others the figure is an approximate one. Table III shows the average age of the different classes of one-room school buildings. About two-thirds of the one-room school buildings are over 50 years of age, and only 13 are under 30 years of age.

Table IV shows the equalized valuations of each class of one-room school districts. The differences in the average valuations for the various groups would hardly explain the differences in school facilities supplied by the districts in each group, and more particularly is this apparent when the valuation range is considered. For instance, the district of greatest ability according to taxable wealth in the "very poor" class is almost twice as wealthy as the poorest district in the "standard" group.

The location of the school children in relation to the school buildings has a more direct bearing on the general problems with which this study is concerned.

INGHAM COUNTY



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The present school law provides that the maximum distance that a pupil under nine years of age may be required to walk to school is two and one-half miles. By using the two and one-half miles as the maximum walking distance for all children, it apparently would be possible to close a considerable number of the one-room schools. This was tested out on the map and the reader may follow the process by observing the arrows running from the dots representing school children, to other school district boundaries. Arrows with one head represent the shifting of pupils, while arrows with two heads indicate children already attending schools of other districts than the ones in which they resided at the time of the survey.

Table III.—Distribution of one-room schools in Ingham County by type of school and age.

Age in Years	Standard	Second Class	Poor	Totals
0-9	4	—	—	4
10-19	—	—	—	—
20-29	1	2	—	3
30-39	1	—	3	4
40-49	4	7	11	22
50-59	4	8	23	35
60-69	—	4	18	22
70-79	—	—	3	3
80-89	—	1	—	1
90-99	—	—	1	1
Totals	14*	22	59	95

*Two standard schools omitted for lack of age data.

The schools that would be discontinued as a result of the shifting of children are indicated on the map by white circles drawn about the school buildings. As a result of the experimental shifting of pupils, it apparently would be possible to close 24 one-room schools in the county. Practically all of the annual operating expenses of these schools could be saved under a system which provides for flexible attendance districts. For the year 1930-31, this amounted to somewhat over \$25,000.

The savings in operating expenses of the closed schools does not complete the story, however. In reaching the above results, the poorer schools were selected for closing whenever there was a possible choice between schools of different quality

Table IV.—Average equalized valuation and valuation range of the quality classes of one-room school districts of Ingham county.

Quality Class	Average Equalized Valuation	Equalized Valuation Range
Standard	189,641	109,000—384,000
Second Class	172,339	114,000—229,000
Fair	165,133	105,000—241,000
Poor	158,496	102,000—269,000
Very Poor	142,868	86,000—199,000

ratings. Of the 24 schools marked for closing, 14 are in the "very poor" class. In addition, flexible attendance districts would permit the equalization of enrollments since schools with small enrollments frequently are to be found adjacent to schools with extremely high enrollments. Also, much of the equipment of the closed schools could be shifted to other schools requiring it.

The above results were reached without decreasing the number of children transported by bus, with the exception of 15 children living on or near one of the Okemos school bus routes. Undoubtedly, even greater utilization of the present facilities could be accomplished by resorting to transportation of a few pupils in some cases. In this study, it was necessary to continue several schools because of a very few children who could not be accommodated in other schools within the required distance.

It is of interest to note that Okemos Consolidated School buses pass by the very doors of five one-room schools and within a very short distance of two or three more. In view of the fact that the capacity of the Okemos schools is about 550 pupils, while on the survey date the enrollment was 420, it would seem more economical to close most of these adjacent schools and transport the pupils to Okemos. However, most of these districts found it to be more economical to maintain their own schools than to pay the tuition and transportation charges to the consolidated school. These charges for the year 1930-31 were \$40.00 per pupil through the fifth grade, \$50.00 per pupil in the sixth, seventh, and eighth grades, and \$80.00 per high school pupil, plus a transportation charge of \$20.00 per pupil. Table V shows the number of pupils and the approximate tuition and transportation fee for seven of these districts. The average operating cost of one-room schools in the county for 1930-31 was \$1,120. Considering this average cost, it is apparent that a district would not find it cheaper to send its children to the consolidated school unless its enrollment was under 17 pupils. From this it may be seen that tuition charges may frequently prevent the most economical distribution of the school attendance in the established schools because of the unprofitableness to the sending districts, although the total operating costs of schools might thereby be lowered.

Table V.—School districts adjacent to Okemos rural agricultural school, May, 1931, with the approximate tuition and transportation charges if sent to the Okemos school.

Name of District	Number of Pupils	Tuition and Transportation Fee
Meridian Center	23	1,495
Button	22	1,430
Center	19	1,235
Phillips	20	1,300
Sandhill	21	1,365
Champion	24	1,560
Island	36	2,340

In this connection, attention might be called to the five districts in the county which do not operate their own schools but transport all of their children to other schools. Table VI lists these districts with the number of children and the transportation and tuition charges for the year 1930-31. It will be noted that only those districts which have very low enrollments seem to gain financially by this process. It must be remembered that school districts are not required to transport the high school children of the district but are merely required to pay the high school tuition charges, leaving the problem of transporting the children to the parents. Looked at merely from the viewpoint of annual operating expenses, Meridian No. 8 apparently would be better off financially if it operated its own grade school. Undoubtedly, these children are receiving a better quality of educational service than they would receive in their own one-room schools, and it is to be understood that this discussion deals purely with the financial factors involved.

Table VI.—Operating costs of school districts not operating schools but transporting all pupils to other districts.

Name of District	Tuition Pupils		Cost of Transportation and Other Operating Expenses	Elementary Tuition	Total Operating Cost (not including H. S. Tuition)
	Elementary	High School			
Onondaga 4	18	2	\$ 785	\$ 270	\$ 1,055
Onondaga 10 Fr.	12	4	654	440	1,094
Onondaga 12	21	6	752	685	1,437
Wheatfield 5	12	1	205	483	688
Meridian 8	83	22	630	5,715	6,345

In Ingham County, the problem presented by a great shifting of population is not encountered as severely as in many other sections of the State. On the whole, the population of the townships has not changed very greatly in the past two decades, with the exception of the areas surrounding the city of Lansing. There are eight large grade schools in Lansing and the northern part of Delhi townships. A large proportion of the territory served by these schools is laid out in streets and is closely built-up. These schools have their own principals. Most of them follow the courses of study of the Lansing city schools and undoubtedly will become part of the city school system in the near future.

Cass County

Cass County, located in the southwestern part of the State, was selected for survey because it was expected that this county would yield results typical of rural communities in the southern half of the lower peninsula. Appendix Table V which lists the various types of school districts of the county with their operating costs and pupil attendance, clearly shows the rural character of the schools in Cass county.

Table VII.—Distribution of one-room schools in Cass County by quality classes.

	Quality Class	Number of Schools
Standard (yellow)	.....	6
Second Class (green)	.....	16
Poor Class (blue)		
Fair (light blue)	11	
Poor (medium blue)	29	61
Very Poor (dark blue)	21	
Total One-rooms	.....	83*

*One less one-room school than shown in Appendix Table building in Pokagon No. 6 Fr.

Study of the spot map seems to show conditions similar to those in Ingham County. The same irregularities of the school district boundaries and the great variation in the quality of the school facilities exist here. Table VII shows the distribution of the one-room schools according to quality classes. It will be observed that more than two-thirds of these schools fall in the "poor" classification, only six being standard schools. In addition to the one-room schools there are four two-room schools, three of which are standard and one very poor.

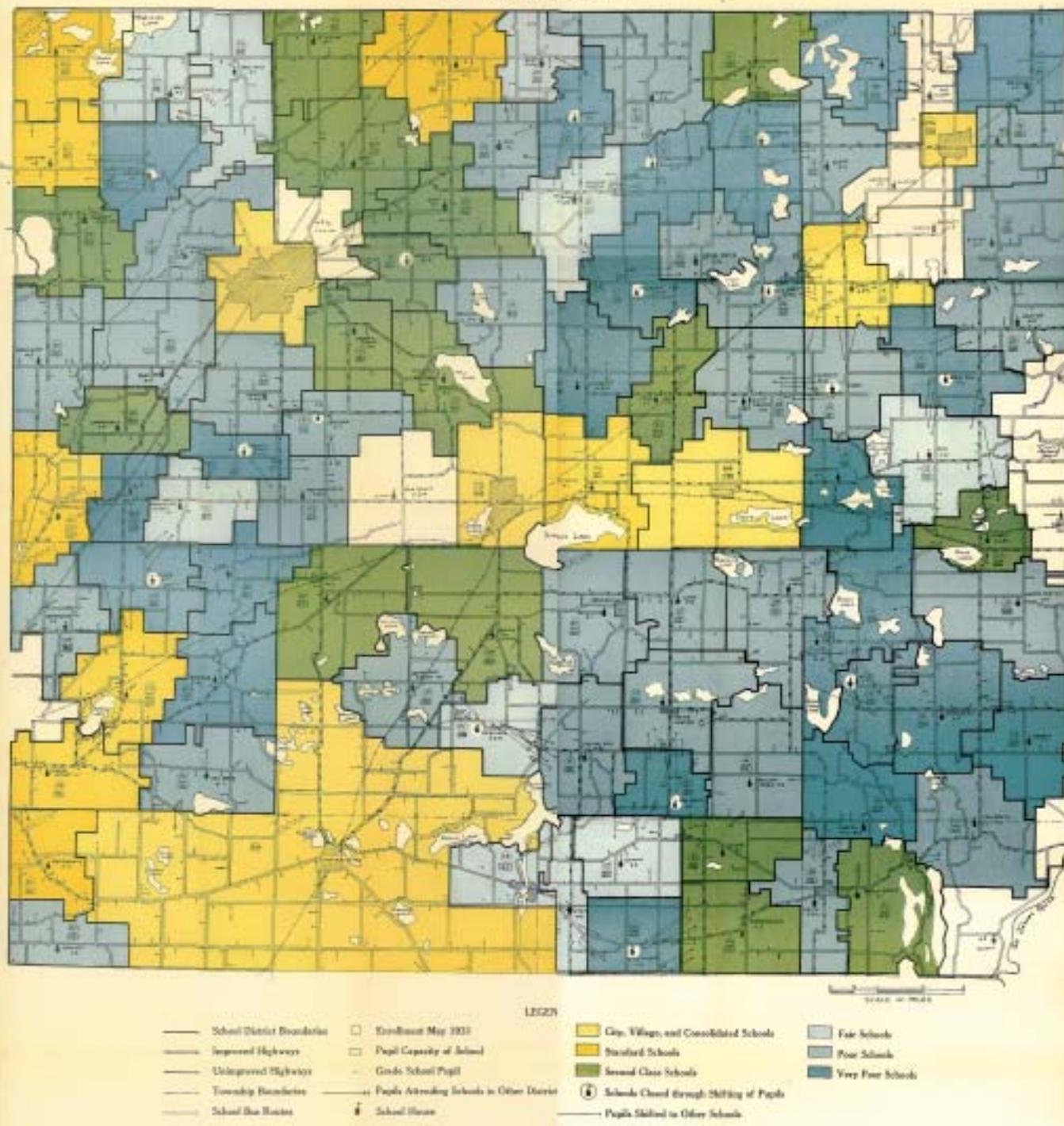
Table VIII which gives the age of the buildings in the various quality classes, shows that more than four-fifths of the one-room schools are over 50 years of age, only three being under 30 years of age.

Table VIII.—Distribution of one-room schools in Cass county by type of school and age.

Age in Years	Standard	Second Class	Poor	Totals
0-9	1	—	—	1
10-19	—	1	—	1
20-29	—	1	—	1
30-39	—	1	2	3
40-49	2	2	8	12
50-59	1	5	24	30
60-69	2	4	21	27
70-79	—	—	5	5
80-89	—	2	1	3
Totals	6	16	61	83*

*One less one-room school than shown in Appendix Table V due to construction of new two-room building in Pokagon No.6 Fr.

CASS COUNTY



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Table IX shows the average equalized valuation of the school districts of the various quality classes. Unlike the same table prepared for Ingham county, this table apparently indicates a significant difference in the taxable wealth between the standard, second and poor classes of school districts. The importance, however, of this difference as an explanation of the great difference in the quality of facilities supplied by the various school districts tends to become minimized when the range in the valuation in each group is considered.

Table IX.—Average equalized valuation and valuation range of the quality classes of one-room school districts of Cass County.

Quality Class	Average Equalized Valuation	Equalized Valuation Range
Standard	\$ 339,847	\$ 157,937—\$ 782,273
Second Class	218,061	85,766— 442,004
Fair	171,323	98,828— 336,655
Poor	164,144	91,828— 272,608
Very Poor	151,235	92,625— 255,859

Study of the number of schools in relation to the number and location of pupils indicates that 16 one-room schools could probably be closed under a wider unit of school administration. The method of analysis employed in reaching this conclusion is the same as that described under the Ingham county survey, and the reader may follow the analysis on the spot map by observing the arrows which run from pupils in school districts whose schools could be closed to other district boundaries. Schools that might be closed are indicated by white circles about the school buildings. Table X gives the results of this analysis in tabular form.

Table X.—Operating costs and average daily attendance for the year 1930-31 of the one-room schools in Cass County that probably would be closed under a wider unit of school administration.

Quality Class	No. of Schools	A.D.A.	Operating Costs
Standard (yellow)	—	—	—
Second Class (green)	1	5.0	\$ 995
Fair (light blue)	1	20.3	1,298
Poor (medium blue)	3	38.9	3,265
Very Poor (dark blue)	11	145.6	11,390
Total	16	226.5	\$ 18,352

Saginaw County

Saginaw County is located in the east central part of the Lower Peninsula just south of Saginaw Bay. The operating costs and school attendance for the various types of school districts are shown in Appendix Table VI.

Table XI.—Distribution of one-room schools in Saginaw county by quality classes.

Quality Class		Number of Schools
Standard (yellow)	.....	36
Second Class (green)	.....	27
Poor Class (blue)		
Fair (light blue)	14	
Poor (medium blue)	28	61
Very Poor (dark blue)	19	
Total One-rooms	.....	124*

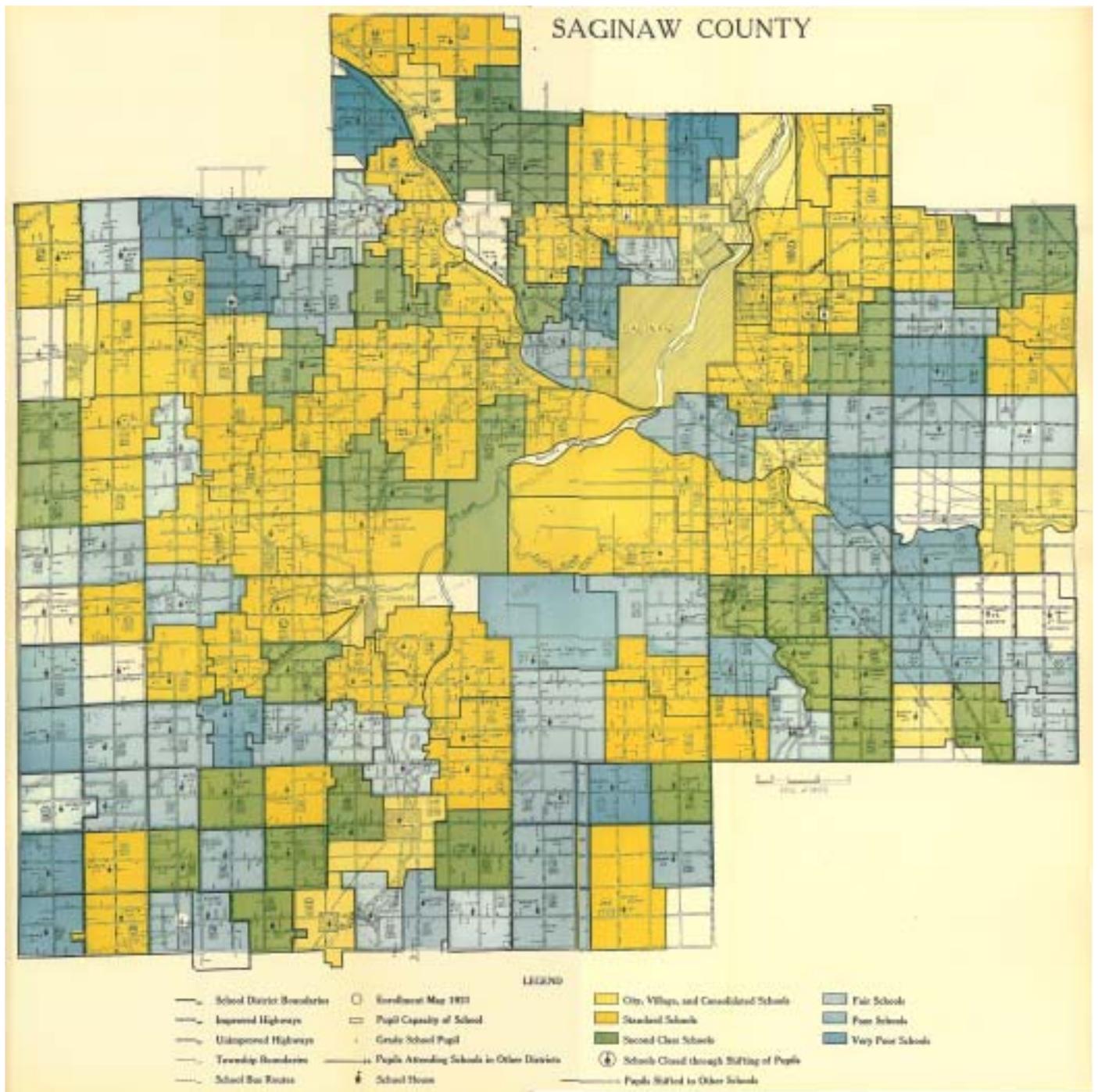
*Maple Grove No. 1 omitted. Closed in 1931-32.

This county presents a rural school situation different from that in the other counties included in the survey. As compared to Ingham and Cass counties, the proportionately large number of yellow or, standard schools is striking, more than half of the rural schools in Saginaw county being standard or second class schools. Under the leadership of the county school commissioner a definite improvement program has been adopted by the rural schools and this undoubtedly has had a marked effect in improving the physical qualities of the schools. Tables XI and XII show the distribution of one-room and two-room schools in Saginaw county by quality classes. Tables XIII and XIV show their distribution according to age.

Table XII.—Distribution of two-room schools in Saginaw county by quality classes

Quality Class	Number of Schools
Standard (yellow)	..... 16
Poor (light blue)	..... 1
Total Two-room Schools	..... 17

The salient feature of the rural school situation in Saginaw County is the heavy rural school population in practically all sections of the county. Because of this situation, there, is little possibility of closing many rural schools by a re-arrangement of the school attendance as was done in Ingham and Cass counties. Table XV compares the one-room school enrollments of Saginaw with those of Ingham and Cass counties. A comparison of the census for 1920 and 1930 shows that many of the townships of this county have had large increases in population in that decade.



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The U. S. Census Bureau also reports that from April 1, 1929 to March 1, 1930, there was a net movement of 539 persons from cities and villages to farms in Saginaw County. This movement is reflected in the large enrollments in the rural schools. Consequently, the problem here is to supply school facilities adequate to meet these changes in the population.

Table XIII.—Distribution of one-room schools in Saginaw county by type of school and age.

Age in Years	Standard	Second Class	Poor	Totals
0-9	12	—	—	12
10-19	7	2	—	9
20-29	4	3	9	16
30-39	6	12	16	34
40-49	5	3	19	27
50-59	—	5	11	16
60-69	2	2	5	9
70-79	—	—	—	—
80-89	—	—	1	1
Totals	36	27	61	124*

* Maple Grove No. 1 omitted. Closed in 1931-32.

The individual districts in Saginaw county have attempted to meet this problem by constructing two-room buildings. There are 17 such buildings in the county, 10 of which have been built in the past 10 years. During the last two years, however, overcrowded districts, unable to enlarge their schools because of the financial situation, are continuing to operate with enrollments far above the load for efficient teaching. Inspection of the map shows that there are 27 schools which have enrollments greater than their efficient seating capacity.

The independent school district system is not adequate to meet this situation. The providing of school facilities due to a rather sudden increase in school popula-

Table XIV.—Distribution of two-room schools in Saginaw County by type of school and age.

Age in Years	Standard	Second Class	Poor	Totals
3	1	—	—	1
4	4	—	—	4
5	2	—	—	2
9	2	—	—	2
10	1	—	—	1
14	1	—	—	1
21	1	—	—	1
35-40	1	—	—	1
45	—	—	1	1
55	1	—	—	1
Totals	14	—	1	15*

* Two schools omitted for lack of age data.

tion is frequently not feasible from the standpoint of a small district since the increase may be of a temporary nature. With a wider unit of school administration, temporary school buildings of standard design and of portable character could be placed in many communities to relieve the over-crowded conditions until the requirements for permanent structures become definitely known. Such buildings could be shifted to meet the demand, and such a procedure would be cheaper in the long run than the construction of permanent buildings where permanency is not required.

Table XV.—Distribution of one-room schools by enrollments in Ingham, Cass, and Saginaw counties. May, 1931.

Range	Ingham	Cass	Saginaw
3— 4	1	—	—
5— 6	1	3	—
7— 8	4	—	—
9—10	3	2	1
11—12	8	7	3
13—14	7	10	4
15—16	13	9	2
17—18	9	7	5
19—20	10	9	13
21—22	12	11	6
23—24	11	4	10
25—26	4	2	11
27—28	2	3	11
29—30	4	3	6
31—32	1	1	8
33—34	4	1	7
35—36	2	5	10
37—38	—	3	7
39—40	1	2	4
41—42	—	—	7
43—44	—	2	4
45—46	—	—	2
47—48	—	—	1
49—50	—	—	—
51—52	—	—	—
53—54	—	—	1
55—56	—	—	2
67	—	—	1

In spite of the general overcrowded condition of the rural schools in Saginaw, it would have been possible on the survey date to close the following schools by sending the children to adjacent districts: Saginaw township, District No. 7, Buena Vista No. 8, Blumfield No. 4, Frankenmuth No. 2, and Brady No. 6. Under a wider unit of school administration the heavy enrollments in some of the schools might be relieved by sending children to adjacent less crowded schools. For instance, Brant District No. 1 Fr. could send 10 children to the two-room school directly to the north of it. In Saginaw township District No. 9 could send at least 12 children to the McMann school to the northwest of it. Study of the map reveals many other similar situations.

The establishment of intermediate schools in many of the rural sections of the county might prove economical. By this means, the heavy enrollment in the present schools could be relieved, and at the same time the burden upon the teachers in many of the one-room schools would be lessened due to the reduced number of recitation periods. Some of these intermediate schools could be run through the ninth and tenth grades. This procedure would also reduce the amount of high school tuition necessarily paid to the city districts by the rural districts and would relieve many parents of the burden of transporting high school pupils to distant city schools.

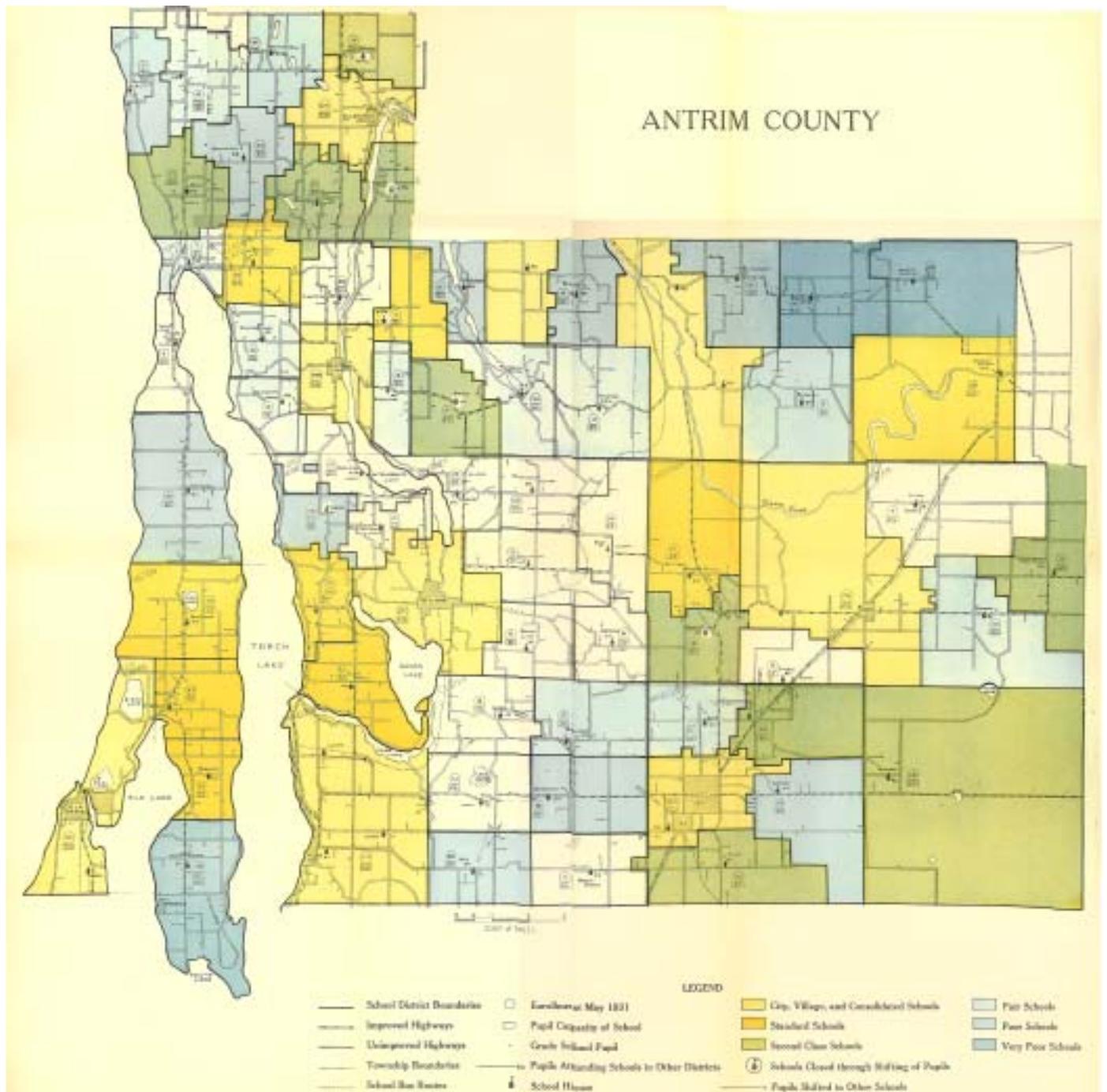
Antrim County

Antrim County is located in the northwestern part of the Lower Peninsula on the eastern shore of Grand Traverse Bay, an arm of Lake Michigan. In this county, the logging and lumbering industries flourished following the Civil War period, and much of the better agricultural land was settled. Since 1900, however, the population of the county continually decreased until the taking of the 1930 census. This decrease in population has been more rapid in the eastern than in the western part of the county. The population in the eastern part of the county will probably continue to decline since the climatic and soil conditions are not so favorable for agriculture in that section, and the opportunity for part-time work in the woods becomes less as the timber stands are further depleted. However, the extension of fruit growing and recreational activities may tend to increase the population in the western section in the future. Because of the declining population, many school districts have in the past found it more economical to close their schools and to transport their pupils to other districts. In the last two years; however, many of the districts have experienced an increase in school population brought about by the migration of families from industrial centers.

The spot map, developed as the result of the survey, demonstrates again the irregular character of the school districts. Appendix Table VII lists the various types of school districts with their operating costs and school attendance. It will be noted that approximately one-third of the total school population is in one-room schools, the remaining two-thirds being in seven villages, most of them with rather low school enrollments. This table also shows that 15 of the one-room schools were closed at the time the survey was made, the pupils from the closed districts being transported to neighboring village schools. Since the survey was made 11 of these districts have re-opened their schools which have been closed for periods ranging from two to 12 years. Among the reasons given for the re-opening of these schools are the increased school population, the great drop in salaries for which teachers could be obtained, and the fact that some of the villages raised the tuition rates that they were charging for the elementary school pupils.

Table XVI.—Distribution of one-room schools in Antrim County by quality classes.

Quality Class		Number of Schools
Standard (yellow)	.....	9
Second Class (green)	.....	10
Poor Class (blue)		
Fair (light blue)	10	
Poor (medium blue)	11	23
Very Poor (dark blue)	2	
Total One-rooms	42



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Table XVI shows the distribution of the one-room schools in the county by quality classes. It will be noted that more than half of these schools fall into the "poor" class. Table XVII shows the ages of the one-room school buildings. The average age of these buildings in this county is somewhat lower than in Ingham and Cass counties, although more than half of them are over 40 years of age.

Table XVII.—Distribution of one-room schools in Antrim county by type of school and age. Districts not operating schools are omitted.

Age in Years	Standard	Second Class	Poor	Totals
0-9	2	—	—	2
10-19	1	—	—	1
20-29	2	2	1	5
30-39	—	2	7	9
40-49	4	5	8	17
50-59	—	1	7	8
Totals	9	10	23	42

A study of the location of school children and school buildings indicates that many economies could be effected if the district boundaries were removed. In Banks Township in the northwest corner of the county, it appears that District No. 1 with five children in attendance should be closed and the children transported to District No. 5. This would put them in a much better school and the cost of transportation would be only a fraction of the cost of maintaining the school. The school of District No. 4 Fr. could be closed. Many of the pupils of this district are within walking distance of the Ellsworth village school while the others could be transported to Ellsworth. District No. 1 has 10 children who could be transported to Ellsworth, a distance of about three miles. The cost of transporting these 10 children to Ellsworth would be less than the cost of operating the school, enough less to make up the additional cost in the village school of Ellsworth. By this process, the pupils in Districts No. 4 Fr. and No. 7 would receive better educational service since they would become part of a graded school.

District No. 2 in Central Lake Township and District No. 1 in Echo township are both located on the same highway, an improved county road. The former district has eight children and the latter nine. It would be cheaper to transport these children to the village of Central Lake than to maintain these schools. Central Lake has a new modern school building and equipment, and can accommodate 300 pupils. On the survey date, it had an enrollment of 230 including the children sent there by two other districts which now have re-opened their own schools. District No. 9 Fr. has seven children who could easily be transported to Central Lake with a net saving. District No. 8 could be closed and the children could either walk or be transported to the Central Lake village school.

In the township of Forest Home, District No. 1 has 11 children, five of these being in one family and four in another. It would appear that these children could be transported to Central Lake or to Bellaire. It happens that District No. 4 has

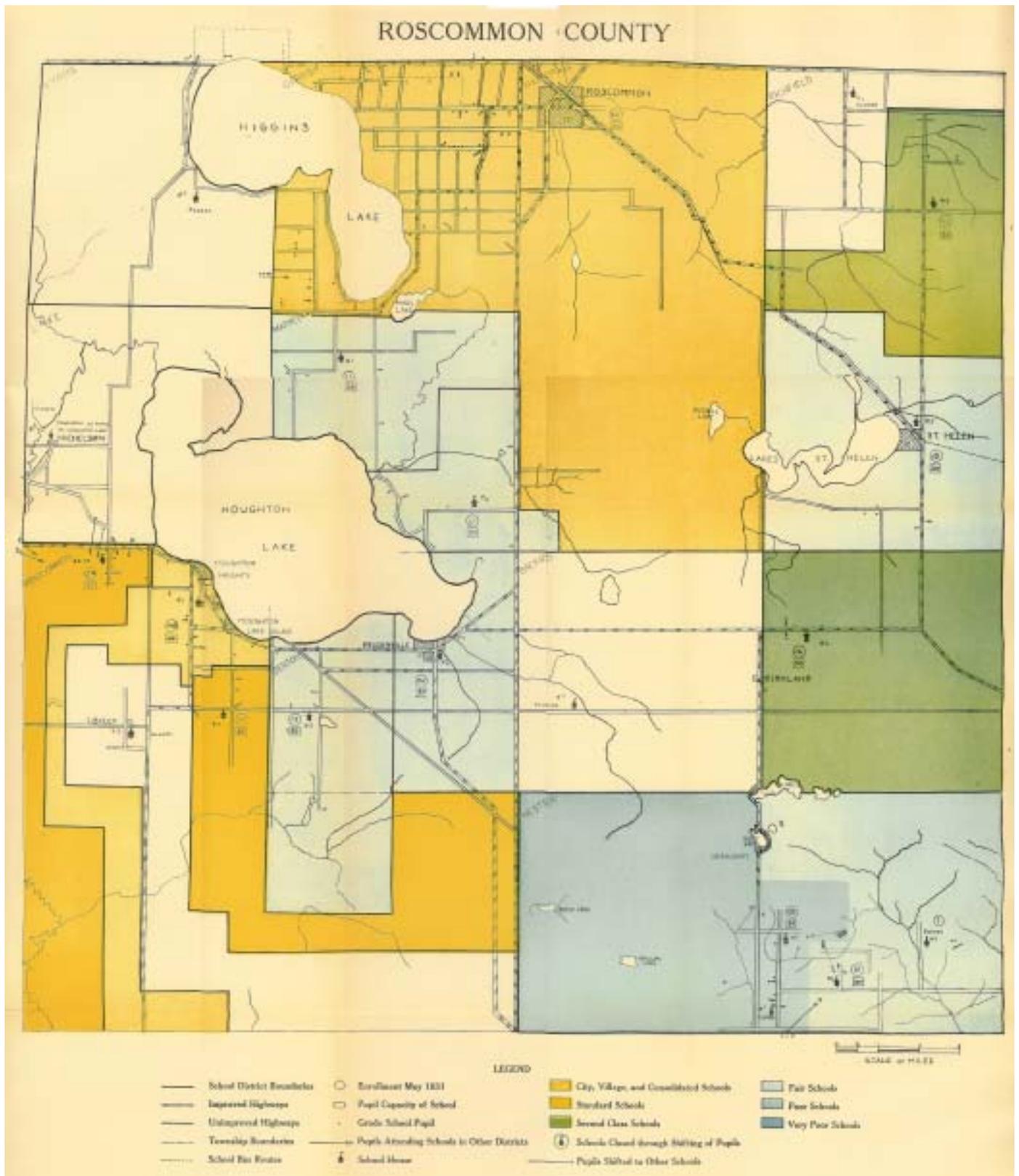
closed its school and transported its children to Bellaire for the past eight years. Due to the hills, these children have been transported in two trips by a private automobile at a cost of \$65 per month. It would seem that the children of District No. 1 might be added to a bus route which includes District No. 4, and with proper equipment all of these children could be transported to Bellaire with a saving over the present situation.

In Kearney Township, all of the schools were closed in the year 1930-31, the pupils being transported to village schools. In District No. 4 there were eight children in one family which constituted the total school population on the survey date; the father of the family being paid \$60 a month to transport his children to Bellaire. It would seem that a considerable saving might be realized if the six Kearney school districts and Custer Township District No. 2 were to cooperate in the transportation of their pupils to Bellaire.

District No. 1 in Chestonia Township could be closed and the children could attend the school of District No. 3. Since these children are within walking distance of the schoolhouse in District No. 3, transportation would not necessarily have to be provided to effect this change. The children of District No. 6, at the time of the survey, were being transported to the village of Alba, but they are within walking distance of the school of Mancelona District No. 5 and could be sent there, the transportation cost thereby being saved.

Torch Lake Township District No. 6 Fr. could close its school and send the children to Banks No. 5 and to Central Lake No. 4 Fr.

These suggested changes are merely the more obvious ones that are indicated by a study of the map. Undoubtedly, many other economies and improvements in service could be suggested. Wherever school enrollments are low or, stated in another way, wherever the school population is rather sparse, a saving as well as an improvement in service can be realized by resorting to the judicious use of transportation.



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Roscommon County

Roscommon County, located in the north central part of the Lower Peninsula, was selected for study primarily because it was expected to illustrate the general nature of the school situation in the cut-over land regions of Michigan. Approximately 95 per cent of the land area of this county is in lakes, burned and cut-over timber lands, swamps or reforestation projects. Nearly 30 per cent of the total land area is in public ownership, most of which is owned by the State as the result of the non-payment of taxes. It is very probable that the greatest future development in this county will be along the lines of forestry projects and recreational activities due to the numerous lakes and the large amount of game cover offered by the swamp and cut-over areas.

The scarcity of the population in Roscommon County is reflected in the school attendance. Appendix Table VIII shows the distribution of school attendance by types of districts. Table XVIII shows the distribution of one-room schools by quality classes. The spot map of school children and school districts reveals that the advantages of a larger unit of administration have been realized to a great extent through the consolidation and cooperation of the independent districts. In 1928, there were 24 one-room schools in operation in the county, while in 1930-31 there were only 12. The consolidated school in the village of Roscommon serves not only the entire territory of Gerrish and Higgins townships but also Lyons Township and the upper district of Richfield township. The Roscommon School is a new, well constructed and equipped building. Due to the relatively enlarged enrollment obtained because of the consolidation and transportation from other districts, the school at Roscommon is able to afford a well-balanced four-year high school course as well as a good elementary school program. In the same manner, the Houghton Lake village school serves the high school pupils of the neighboring districts as well as the elementary pupils which are transported from Lake Township.

Table XVIII.—Distribution of one-room schools in Roscommon county by quality classes.

Quality Class	Number of Schools
Standard (yellow)	2
Second Class (green)	2
Poor Class (blue)	
Fair (light blue) 6	
Poor (medium blue) 1	7
Very Poor (dark blue) —	
Total One-rooms	11*

*Nester No.5 omitted-building burned

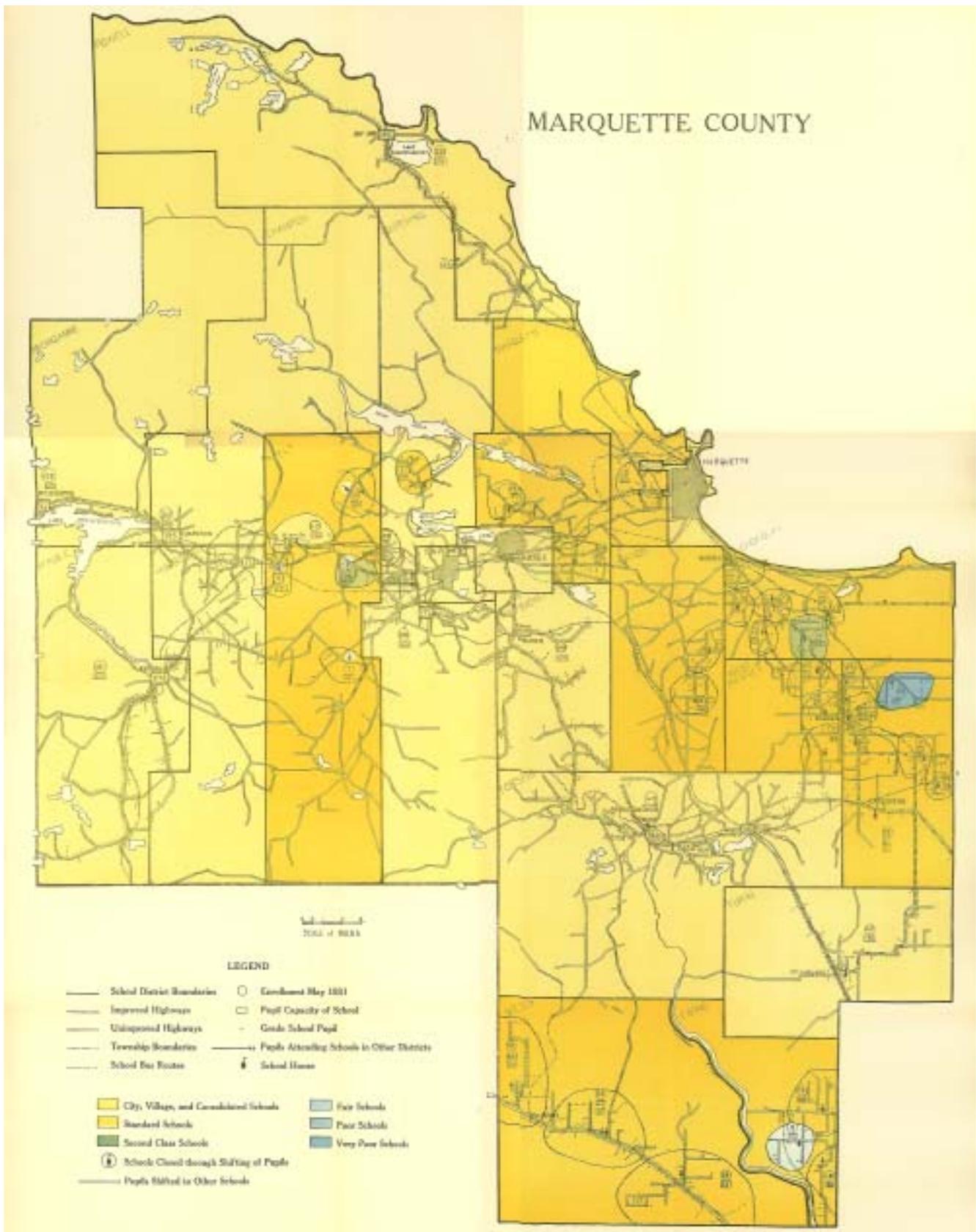
Roscommon and Denton townships together are divided into six school districts. The peculiar shape of these districts, each of which covers a large unpopulated area, may be explained by the fact that the township boards laid out the school

districts in such a manner as to divide equitably the 10 cents per acre paid by the State on state-owned lands for the use of townships and school districts.

The school building at Houghton Lake village was built in 1924, and since that time the school population in the village and vicinity has so increased that the school is now used to capacity. This increase has been due to the fact that a considerable proportion of the resort property is permanently occupied. It is doubtful that this condition will continue when industrial prosperity returns. It would seem, however, that some saving and considerable improvement in the school services would result if the schools in the districts adjacent to Houghton Lake village were closed and pupils transported to the village school. Under the present conditions, this would of course require the building of an addition to the Houghton Lake village school.

The high school pupils of Markey Township, as was indicated above, are already attending the Roscommon village school. With a relatively small increase of transportation expense, the two district schools of this township could be closed and the pupils transported to Roscommon.

The vast area of unimproved land in Roscommon County constantly leaves open the possibility that families will move into unsettled portions of the county far removed from established school facilities. Under the present arrangement, there is nothing to prevent this situation and school advantages must be supplied or the taxpayers will be forced to provide transportation for the children of such families to distant schools. Illustrations of this situation have been encountered frequently in the conduct of this survey.



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Marquette County

Marquette County, located in the Upper Peninsula on Lake Superior, is the largest county in area in the State. Mining and lumbering with their allied activities are the most important industries. Although there is a great deal of land under cultivation, the rural population is rather sparsely distributed along certain main highways. Most of the unsettled land area is held as forest or mining reserves.

Eleven of the 15 Upper Peninsula counties are completely organized under the township unit system while the other four have both the township unit and the independent district systems. Marquette County was selected for this survey not only because it was desired to include a county which is representative of this type of school organization, but also because it was known that here the township unit system had been developed to the fullest extent possible under the present laws. The present county commissioner of schools has succeeded in obtaining the cooperation of the various township boards to such an extent that many of the advantages of a county unit of organization are realized.

The three city school systems, Marquette, Negaunee, and Ishpeming, are excluded from the township units, being independent school districts. There are only 28 one-room schools in operation in the county, the remainder of the rural children being transported to village or rural agricultural schools. School pupils are transported to a far greater extent in the northern section of the State than is the case in the southern section. There are a number of factors causing this situation. The population is frequently so sparse that it is more economical to gather the children by means of buses into larger schools than to operate rural schools with small enrollments located within walking distance of the children. Another factor is the average winter snowfall, which materially lessens the practical walking distance for small children. Transportation is employed in all districts in Marquette County except in those which operate one-room schools.

The fact that Marquette County has not been hampered by the existence of a large number of small independent districts has made possible the practice of transportation and the more logical development of school attendance areas along natural community lines. Study of the spot map, however, indicates that some further improvements in service and economies in operation of the schools could be secured either through greater cooperation between the districts or through greater centralization of the administration. No high school facilities are offered in the contiguous townships of Chocolay, West Branch, Skandia, and Sands. It would seem that a high school might be established at a central point such as Skandia to serve this area. In time, most of the one and two-room schools in these townships might be abandoned and replaced by a large elementary school at Skandia. In such a school, the teaching load could be handled more efficiently by approximately one-half of the number of teachers now required in the 19 schools in operation. Four or five buses would be necessary to transport the children in this area. Nevertheless, the total cost of school operation would be less, and the children would benefit from the graded school advantages.

In Ely Township, there are four one-room schools being maintained, each having a small enrollment. Children now attending three of these schools could be transported to Diorite. The Clarksburg school, just one and one-half miles from the four-room brick school in Diorite, was built in 1931, in spite of the fact that only two of the four rooms of the Diorite school were in use. In the Pleasant Prairie school district, there are only two families with children in school attendance. These children live a very short distance from the present terminus of the National Mine school bus, yet this school is maintained for seven pupils.

Classification of the one-room schools as a result of the survey shows only four schools which do not meet standard requirements. Of these, only two fall into the "poor" class, one of them being a temporary lumber camp school. All of the village and rural agricultural schools are relatively new buildings and are well equipped. The splendid character of the school buildings may be partly explained by the fact that there is a high percentage of absentee land ownership in Marquette County. The local residents, therefore, are not averse to voting for well equipped schools since apparently little of the tax burden rests on them. This situation is also a factor in explaining the overbuilding in many of the school areas.

Table XIX shows the capacities and enrollments of the village and consolidated schools. It is quite probable that a great amount of waste would have been avoided through a stronger central agency of control than is afforded under the present laws.

Table XIX.—Age, capacity and enrollment of each of the village school buildings in Marquette County.

School Building	Age of Building	Capacity	Enrollment	Percentage of Capacity Utilized
Michigamme	17	450	162	36.0
Diorite	4	120	47	39.2
McFarland	8	150	68	45.3
National Mine	8	400	200	50.0
West Ishpeming	16	120	68	56.7
Palmer	9	450	300	66.7
Big Bay	18	275	220	80.0
North Lake	20	250	208	83.2
Champion	12	300	260	86.7
Republic	26	500	481	96.2
Gwinn	22	600	610	101.7

III. SUMMARY OF SURVEY RESULTS

The lack of coordinated leadership in the development of educational policies under the independent district system is clearly demonstrated by the survey. The most striking illustration of this fact is the variation in the quality of the physical facilities of the school districts, both within the counties themselves and between sections of the State. Table XX shows the percentage of rural schools in the six surveyed counties which lack the more important physical requirements.

The greatest defect of the district form of school administration from the standpoint of financial efficiency is that it does not permit the most efficient use and planning of school facilities. It is recognized that many local factors could not be taken into consideration under the methods used in this study. Nevertheless, the survey shows that great economies could be realized by enlarging the unit of administration. In Ingham and Cass counties, approximately one-fourth of the one-room schools could be closed under the present conditions. There is no reason to believe that the rural school situation in these counties differs materially from that in the majority of the counties in the Lower Peninsula.

Table XX.—Percentage of one-room and two-room school buildings in the surveyed counties failing to meet certain standard requirements.

	Ingham	Saginaw	Cass	Antrim	Roscommon	Marquette
Improper Lighting	62.6	51.8	83.0	75.0	75.0	3.1
Inadequate Lighting	35.4	46.1	27.6	15.9	25.0	3.1
Poor Toilets	24.2	33.3	19.5	9.1	—	3.1
Poor Floors	18.2	21.3	23.0	11.4	16.7	6.2
No Cloakrooms	41.1	37.6	70.1	75.0	66.7	6.2
Poor or Improper Heating System	34.3	15.6	43.7	20.5	25.0	3.1
No Play Equipment	40.4	77.3	64.4	86.4	—	71.9

The rural school situation in counties which have increasing populations and small-farm real estate developments is probably very similar to that in Saginaw. In counties of this type, a great immediate saving under the adoption of a wider unit cannot be readily demonstrated, since the problem presented is not one of effecting the greatest utilization of existing facilities, but in the main is one of relieving overcrowded schools. It is probable, however, that future economies which would result due to proper planning and location of school buildings would tend to reach large proportions.

The large number of old and poorly equipped school buildings in some of the counties indicates that considerable building and remodeling will necessarily take place in the coming years. Many of these old buildings could be permanently closed if attendance districts were made flexible. If the inefficiency of the present system is not to be perpetuated, any necessary new construction must be planned as to location and need. Under the independent district system, proper planning is impossible.

If the surveyed counties in the northern part of the State are typical of that section, a wider unit of school administration there also would increase the efficiency of the school system. Existing facilities in Antrim and Roscommon counties are not utilized to the fullest advantage. Transportation of pupils is employed to a greater degree than in the southern portion of the state since the school population in these areas is likely to be rather sparse. Consequently, it is frequently cheaper to gather a larger group of children into an efficient graded school by means of transportation than to operate one-room schools with small enrollments. Cooperation between districts in the transportation of school children was seldom encountered during the survey. Under a wider unit of administration, the planning of bus routes and the development of proper regulations would improve transportation services and reduce its cost.

Tuition charges have also prevented cooperation between independent districts. Districts which might properly close their own schools and transport their pupils frequently find this to be unprofitable because of the necessity of paying tuition to the receiving districts, although the total cost might be considerably lowered by the transfer. The competition for tuition pupils frequently leads to the over-extension of high school facilities in villages and also to the unnecessary establishment of inefficiently small high schools.

Other defects of the independent district system were encountered in the survey which cannot be easily demonstrated. The great variation in the physical quality of buildings is probably equaled by the variation in the quality of the instructional services. The school boards have little restriction with regard to the employment of teachers and the purchase of educational supplies. Under the existing system, there is necessarily very little assistance or supervision afforded the teachers, the school commissioner being merely a supervisory officer who may make recommendations but has practically no means of enforcing them.

Finally, one of the greatest defects of the present system is the inequitable manner in which the burden of public school support is distributed. Not only is this due to the great variation between districts with respect to their tax-paying ability and the size of their educational task, but also to the method by which the State seeks to carry its share of the financial burden.¹¹ Consequently, tax rates may vary tremendously between districts even though the quality of the educational program may be the same. As a result, voluntary consolidations are discouraged because very frequently the consolidation would bring about a redistribution of the tax burden which would be unfavorable to one or more other districts.

¹¹ See Tables I and II—"School Financing in Michigan"—*op. cit.*

IV. SUGGESTED CHANGES IN RURAL SCHOOL ADMINISTRATION

The need for a larger unit of rural school administration in the State has long been recognized. Educators have called attention to the inefficiencies of the independent district system in Michigan and in other states where it is in effect. The report of the State Superintendent of Public Instruction are full of discussions of this problem. The legislature of this State has responded to criticisms of the district system with legislation which permits the establishment of various types of wider units of school administration, and has even encouraged the formation of consolidated districts with the inducement of state aid. However, the results of this survey emphasize the fact that additional legislation is required to bring the advantages of a more centralized administration to most of the rural areas of Michigan.

Suggested reforms range from the modification of the existing district system by the imposition of a wider unit of administration with limited powers, to a complete reorganization of the public school system which would centralize control in the county and in the state. In order to be effective, any plan of reorganization should include some or all of the following provisions:

- (1) Flexible attendance areas.
- (2) Central board empowered to:
 - A. Prepare or review school budgets,
 - B. Plan new building requirements,
 - C. Control the issue of bonds.
- (3) Supervision by an appointed county superintendent, possessing proper professional qualifications and having somewhat greater powers than the present county commissioner of schools.
- (4) Centralized purchasing of supplies and equipment.
- (5) Enlargement of the taxing unit.

Four distinct types of organization which include the above requirements in a greater or lesser degree suggest themselves. These are consolidated districts similar to those already formed under the Rural Agricultural Act; a county unit for rural schools; a township unit system; and modifications of the present district system.

Consolidated School Districts

Voluntary consolidation has not proved effective. It is true that considerable progress has been made in this field since the original act was passed in 1917. However, since under the existing act consolidations depend upon the voluntary combining of school districts, the consolidations effected in the past have not always been along the most logical or economical lines. In addition, consolidation does not contemplate the most efficient utilization of existing school equipment, but it is based upon the idea of bringing all children together into one school building.

Consolidations have been formed under inducement of lowered costs and improved service. Too frequently, however, the construction of a new building, the adoption of transportation, the insistence upon extensive equipment and the addition of a greatly enriched educational program have resulted in high costs. Due to this fact, the idea of consolidation is in disrepute in the State. It is believed on the other hand, that the economies of consolidation and the improvements which are sought through it can be obtained by other means and much more effectively.

The idea of establishing school districts along the lines of natural communities is sound but is impossible of accomplishment without a careful survey of the entire State. No general law could be enacted which would set up these districts. It is believed, however, that an approach to the ideal can be reached through another form of organization. This is by means of a county unit, which permits the planning along community lines while utilizing existing facilities most economically during the development process.

County Unit

A county unit of rural school administration would undoubtedly be the most efficient form for the State. It is believed that the benefits of such a form of administration could be realized without necessarily depriving local communities of some control over school affairs. The county unit should embrace all rural schools of the county as a taxing and administrative unit to be governed by a single board and administered by a county superintendent. The question as to whether only the primary and small graded districts should be included in a county unit or whether villages should also be included has a material effect on the extent to which many economies might be realized. The inclusion of villages with a population of 3,000 and under, which now come under the supervision of the county commissioner of schools, would permit the proper planning of secondary school opportunities as well as extend the possibilities of elementary school planning.

The governing board of the county district should consist of from seven to nine members. In order to avoid the real or financial danger that a county board might be representative of only one section of the county if elected by the school electors of the district as a whole, election of the board might be accomplished in several ways. Each county could be divided into seven or nine election districts, each district electing one member. Under another method, the present district boundaries might be maintained and each district elect a school officer. The school officers of the various districts could meet together once every year or two for the purpose of electing members of the county board. These school officers could be the representatives of the county board with respect to school property and school affairs within their respective districts.

The county board should possess powers similar to those of the present city district boards. More specifically, this board should have power to fix the school budget, supervise the issuance of bonds, hire a superintendent, employ teachers, purchase educational supplies and equipment, establish and close schools, and levy

taxes; in short, it would have complete control of the county school system, subject of course to the limitations of state supervision and control established by law.

The county superintendent would be the executive officer of the board. The most important powers and duties of the county superintendent would be: (1) to put into practice the educational policies of the State and of the county board of education; (2) to supervise and direct the work of assistants and other employees of the county board of education; (3) to recommend in writing all teachers necessary for the schools; (4) to suspend any teacher for cause until the board of education may consider such suspension.

Among the difficulties encountered in considering the establishment of the county unit is the question as to how an equitable adjustment between local districts can be made when the county unit takes over the school properties of these districts. A plan might be set up whereby the local district lines are maintained and instead of there being a uniform tax over the whole county unit, the necessary funds could be obtained by taxing the districts in proportion to the volume of the school property contributed by each district to, the county unit. This variable tax should be so adjusted as to amortize the differences in the value of the school property contributed by the various districts in a definite period of years. In the same way, debts could be taken over by the county and a differential tax imposed upon the various districts depending upon the amount of indebtedness, or the local districts might retain the responsibility of paying their own debts.

Township Unit

Many of the weaknesses of the present district system could be corrected if the adoption of the present township unit law were made compulsory, provided certain modifications were put into effect. The study of Marquette County reveals few of the weaknesses characteristic of the independent district system, although even there the necessity for some control over the action of the township boards was indicated. On the other hand, township units which have been superimposed upon the district system in sections of the Lower Peninsula have not brought about the improvements which might be expected. For example, the Alaiedon township unit in Ingham County maintains its old district lines and operates nine one-room schools. These nine schools are classified as follows; two "very poor," two "medium poor," three "fair," two "standard." The territory of another sub-district in the township is included in the Okemos consolidated school district. The spot map indicates that four of these schools could probably be closed since the children are within walking distance of neighboring schools.

This would seem to demonstrate that in order for the township unit to be effective in securing economies there should be a superimposed authority which would at least initiate such a position to compel their adoption. This authority should consist of a county board with an appointed superintendent as its executive officer.

Modifications of District System

Although it is believed that only by the adoption of the county unit system can most of the weaknesses of the existing arrangement be cured, opposition to so far-reaching a reorganization may preclude its adoption until the mistrust of greater centralization has been allayed and the advantages of a wider unit of organization have become more generally appreciated. Less drastic reforms in the nature of modifications of the present system would encounter less opposition and would furnish the basis for the gradual development into the county unit. One such plan would be essentially the county unit, suggested above, in which the district lines are maintained not only for the election of a school officer in each district but also as the unit of taxation.

Under another form, rural school administration would be divided between the local district, the township, and the county. The local district would remain the taxing unit and would elect one school officer instead of three or five as is done at present. Each district officer would have supervision of the school property and would recommend the annual budget for his district. The district officers of each township would become a township school board, having power to pass on local budgets, to employ teachers, and to open or close any schools in the township in the interest of efficiency and economy. The township board should also adjust tuition rates between the districts within the township, taking into consideration the expense of the receiving district and the savings to the district whose school is closed. The chairmen of these township boards would constitute a county board authorized to act through an executive committee of from three to five members. This county board should employ a qualified county superintendent to act as its executive officer.

State Aid

Probably the greatest opposition to the adoption of a wider unit of school administration comes from the people in those districts which have a tax advantage under the present arrangement. The adoption by the State of an equalization plan would tend to remove most of this opposition in the future. On the other hand, without equalization some new inequities would be created by the adoption of a wider unit of taxation for school purposes, since part of the present burden would be shifted to the districts now having an advantage. The basis for taxation being largely real property, the level of school taxes has had an effect on property values; in other words the tax has, to a large extent been capitalized and equalized as regards the present owners. Consequently, equalization legislation should accompany any legislation creating a wider unit of taxation.¹²

¹² For details of an equalization plan for Michigan see: Report of State Educational Survey Commission, 1931; or Special Bulletin No. 212, Agr. Exp. Sta., Michigan State College, op. Cit.

APPENDIX

Table I.—Public school expenditures, school population and attendance in Michigan for the period 1900-1931.#

Years	Net Expenditures or Operating Costs	Expenditures for Buildings and Sites	School Census	Average Daily Attendance	Number of Teachers	Paid Teachers
1900	\$ 6,170,362	\$ 1,127,329	721,698	355,225	15,924	\$ 4,503,549
1905	8,309,138	1,321,558	743,184	356,653	16,823	6,007,652
1910	12,520,583	2,075,235	771,471	416,036	17,987	8,771,896
1911	13,189,437	2,103,114	783,780	426,000	18,202	9,327,930
1912	14,531,349	2,199,021	795,423	439,779	18,824	9,943,719
1913	15,879,921	2,902,217	815,849	458,708	19,500	10,541,128
1914	17,244,389	4,153,410	826,400	478,926	19,734	10,795,775
1915	18,827,103	3,557,129	845,754	554,547	20,161	11,931,113
1916	19,550,388	4,519,423	866,570	570,200	20,979	12,702,080
1917	21,729,573	5,820,412	892,888	569,710	21,992	12,836,596
1918	25,096,856	7,044,294	919,666	608,202	23,051	15,452,165
1919	29,851,970	4,764,288	937,330	585,530	23,388	18,826,355
1920	37,151,445	9,853,175	978,412	521,251	24,302	23,443,981
1921	50,739,530	20,879,599	1,020,699	567,295	24,938	32,564,911
1922	54,059,857	26,298,225	1,038,897	605,386	25,755	35,440,902
1923	59,995,902	19,193,460	1,075,890	619,058	26,718	37,664,388
1924	63,612,554	20,079,759	1,124,551	650,462	27,918	39,407,174
1925	68,344,535	26,894,482	1,160,435	479,538	29,390	42,293,488
1926	76,654,655	22,892,664	1,199,260	703,900	30,327	45,991,575
1927	80,853,941	23,926,590	1,247,932	742,626	31,184	48,680,907
1928	87,151,127	23,221,754	1,274,478	770,362	33,119	50,138,813
1929	92,575,526	16,610,566	1,337,018	799,189	33,724	53,224,517
1930	97,860,353	21,439,327	1,365,007	844,967	34,552	56,033,919
1931	98,859,129	17,760,849	1,373,585	870,263	34,806	57,798,091

Table II.—Public school revenues and sources in Michigan for the period 1900-1931.#

Years	District Taxes	Primary Money	Other State Aid	Tuition (Personal only)
1900	\$ 5,412,978	\$ 1,729,429	—	\$ 88,418
1905	6,502,422	2,452,840	—	110
1910	6,998,443	6,093,810	—	—
1911	8,114,027	618,059	—	49,520
1912	8,467,692	5,500,639	—	—
1913	10,580,833	5,756,035	—	67,864
1914	11,764,554	5,734,068	—	—
1915	12,676,846	6,438,208	—	76,671
1916	14,081,080	6,485,725	—	—
1917	15,454,411	6,225,573	—	101,268
1918	18,246,397	6,441,309	14,642	122,308
1919	23,113,989	7,064,071	23,034	130,320
1920	29,052,918	9,346,024	30,715	201,573
1921	43,912,467	1,068,359	114,280	349,134
1922	44,409,609	11,925,492	152,842	140,622
1923	47,291,550	11,939,548	171,035	164,291
1924	50,922,643	15,055,174	197,656	247,602
1925	54,291,532	15,395,688	211,423	308,203
1926	57,286,175	15,364,960	244,098	216,993
1927	68,861,463	15,422,553	1,177,942	313,621
1928	74,138,811	15,426,896	597,576	387,634
1929	75,361,493	20,553,480	905,316	368,985
1930	79,358,063	24,071,433	2,545,225	368,578
1931	75,018,996	24,137,198	2,406,510	390,570

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Table III.—Michigan public school operating expenses; school census and attendance; number of teachers and amounts paid teachers; district taxes and primary school fund, by years since 1920, expressed as percentages of the year 1920.

Year	Net Expenditures and Operating Costs	School Census	Average Daily Attendance	Number of Teachers	Paid Teachers	District Taxes	Primary Money
1920	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1921	136.6	104.4	108.8	102.6	138.9	151.1	109.9
1922	145.5	106.2	116.2	106.0	151.2	152.8	127.6
1923	161.5	110.0	118.8	110.0	160.7	162.8	127.8
1924	171.2	114.9	124.8	114.9	168.1	175.3	161.1
1925	184.0	118.6	130.4	120.9	180.4	186.9	164.7
1926	206.3	122.6	135.0	124.8	196.2	197.2	164.4
1927	217.6	127.5	142.5	128.3	207.6	237.0	165.0
1928	234.6	130.2	147.8	136.3	213.9	255.2	165.1
1929	249.2	136.6	153.3	138.8	227.0	259.4	219.9
1930	263.4	139.5	162.1	142.2	239.0	273.2	257.6
1931	266.1	140.4	166.9	143.2	246.5	258.2	258.3

Table IV.—Average Daily attendance and operating costs of Ingham county schools grouped according to types of districts. School year 1930-31.

	Operating Costs	A.D.A.
Cities:		
Lansing	1,530,261	14,391
East Lansing	100,589	1,025
Mason	61,531	570
Total	1,692,381	15,986
Villages:		
Webberville	11,794	207
Williamston	31,442	456
Leslie	23,434	335
Stockbridge	26,615	243
Holt	20,517	462
Total	113,802	1,703
Consolidated:		
Dansville	29,363	327
Okemos	30,654	361
Haslett	22,707	275
Total	82,724	963
8 Graded Districts	83,511	83,511
2 Two-room schools	4,856	150
88 One-room schools	99,847	1,623
1 Township unit (9 one-room schools)	9,586	151
5 Districts not operating schools	3,027	—
Total	117,316	1,924
Grand Total	2,089,734	104,087

Table V.—Average Daily attendance and operating costs of Cass county schools grouped according to types of districts. School year 1930-31.

	Operating Costs	A.D.A.
Cities:		
Dowagiac	190,545	1,480.9
Villages:		
Cassapolis	25,376	332.2
Marcellus	21,632	239.6
Vandalia	7,639	107.1
Total	54,647	678.9
Consolidated:		
Edwardsburg (Rural Agricultural)	29,695	307.8
3 Two-room schools	9,271	154.0
84 One-room schools	98,400	1,615.0
7 Districts not operating schools	2,742	—
Total	110,413	1,769.0
Grand Total	385,300	4,236.6

Table VI.—Average Daily attendance and operating costs of Saginaw county schools grouped according to types of districts. School year 1930-31.

	Operating Costs	A.D.A.
Cities:		
Saginaw	1,283,816	13,221.0
Villages:		
Birch Run	11,807	147.7
Bridgeport	6,419	111.1
Frankenmuth	7,609	82.7
Merrill	8,775	110.8
Hemlock	10,421	122.8
St. Charles	27,970	495.0
Burt	4,445	76.2
Freeland	7,372	139.7
Chesaning	39,324	403.0
Oakley	2,492	56.7
Carrollton	19,306	251.1
Zilwaukee	13,162	178.7
Total	159,102,175.5	
4 Graded Districts	31,813	520.4
17 Two-room schools	46,961	1,019.1
124 One-room schools*	165,956	3,359.7
8 Districts not operating schools	973	—
Total	213,890	4,378.8
Grand Total	1,688,621	20,295.7

Table VII.—Average Daily attendance and operating costs of Antrim county schools grouped according to types of districts. School year 1930-31.

	Operating Costs	A.D.A.
Villages:		
Ellsworth	9,115	126.8
Alden	9,734	104.8
Mancelona	39,851	468.6
Central Lake	14,150	195.0
Alba	16,979	147.0
Eld Rapids	13,637	141.0
Bellaire	16,136	242.9
Total	119,602	1,426.1
.....		
2 Two-room schools	4,439	78.5
40 One-room schools	45,593	665.0
1 Township unit (2 one-room schools) ..	2,196	34.6
15 Districts not operating schools ..	10,529	—
Total	62,757	778.1
Grand Total	182,359	2204.2

Table VIII.—Average Daily attendance and operating costs of Roscommon county schools grouped according to types of districts. School year 1930-31.

	Operating Costs	A.D.A.
Cities:		
Roscommon	18,727	162.1
Houghton Lake	9,584	125.2
Total	28,311	287.3
12 One-room schools	13,513	155.6
6 Districts not operating school	2,937	—
Grand Total	44,761	442.9