

AN INQUIRY INTO THE FINANCIAL  
STATUS OF THE SCHOOLS  
IRON COUNTY, MICHIGAN

Thesis for the Degree of M. A.  
MICHIGAN STATE COLLEGE

E. Burr Sherwood  
1946



This is to certify that the

thesis entitled

"AN INQUIRY INTO THE FINANCIAL STATUS OF  
THE SCHOOLS OF IRON COUNTY, MICHIGAN."

presented by

E. Burr Sherwood

has been accepted towards fulfillment  
of the requirements for

M.A. degree in Education

  
Major professor

Date December 3, 1946







AN INQUIRY INTO THE FINANCIAL STATUS OF THE SCHOOLS  
IRON COUNTY, MICHIGAN

by  
E. Burr Sherwood

A THESIS

Submitted to the Graduate School of Michigan  
State College of Agriculture and Applied  
Science in partial fulfilment of the  
requirements for the degree of

MASTER OF ARTS

Department of Education

1946

THESIS

## TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION . . . . .	1
Background of Problem . . . . .	1
Pertinent Questions . . . . .	2
Purpose of Thesis — Statement of Problem . . . . .	4
Sources and Treatment of Data . . . . .	5
How Study May Be Used . . . . .	6
II. FACTORS AFFECTING THE FINANCIAL STATUS OF SCHOOLS	
IN IRON COUNTY, MICHIGAN . . . . .	8
Population Statistics . . . . .	8
School Revenues . . . . .	35
Budget Expenditures . . . . .	65
III. FINANCIAL ASPECTS OF A COUNTY UNIT SYSTEM OF SCHOOL	
ORGANIZATION FOR IRON COUNTY, MICHIGAN . . . . .	119
Potential Income . . . . .	119
Budget Expenditures . . . . .	126
IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS . . . . .	136
Summary . . . . .	136
Population . . . . .	136
School Revenues . . . . .	137
Budget Expenditures . . . . .	138
Budget for County Unit . . . . .	140
Conclusions and Recommendations . . . . .	141

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....



# LIST OF TABLES

TABLE	PAGE
I. Population of School Districts of Iron County, Michigan By Decades from 1910 to 1945 . . . . .	9
II. School Census by Districts, Iron County, Michigan from 1920 to 1946 . . . . .	16
III. Year-End Membership by Grades of All Iron County, Michigan School Districts from 1920 to 1946 . . . .	19
IV. Ratio of Year-End School Membership to School Census in Iron County, Michigan School Districts from 1920 to 1946 . . . . .	21
V. Ratio of Elementary to Secondary Enrollments at Five- Year Intervals in All Iron County School Districts from 1920 to 1946 . . . . .	24
VI. Census of Children Under 5 Years of Age in Iron County, Michigan from 1944 to 1946 . . . . .	26
VII. Number of Buildings Operated by All Iron County, Michigan School Districts from 1926 to 1946 . . . .	28
VIII. Instructional Personnel and Teacher-Pupil-Ratio, Iron County, Michigan Schools from 1933 to 1946 . . . .	30
IX. Summary of Sources of Revenue of All Iron County, Michigan School Districts from 1927 to 1946 . . . .	37
X. Percentage of Local, State, and Miscellaneous School Revenues Supporting County School Districts from 1927 to 1946 . . . . .	38

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

TABLE	PAGE
XI. Assessed Valuation of All Iron County School Districts from 1925 to 1946 . . . . .	41
XII. Percentage Changes in Property Valuations in All Iron County School Districts from 1925 to 1946 . . . . .	42
XIII. Percentage of Taxes Paid by Mining Companies and All Other Sources to All Iron County School Districts from 1928 to 1945 . . . . .	45
XIV. Assessed Valuation Per Capita for All Iron County Schools from 1926 to 1946 . . . . .	48
XV. Tax Rates Levied for Operation of All Iron County School Districts from 1926 to 1946 . . . . .	50
XVI. Amounts of Local Tax Levies for Operation of All Iron County Schools from 1926 to 1946 . . . . .	53
XVII. Amounts Paid from Local Tax Levies for Servicing Debt Acquired Prior to 1933 by All Iron County School Districts from 1926 to 1946 . . . . .	55
XVIII. County Equalized Valuations versus State Equalized Valuations for Schools in Iron County from 1938 to 1944 . . . . .	59
XIX. Amount of Primary Interest Fund Money Paid to All Iron County School Districts from 1926 to 1946 . . . . .	61
XX. State Aid Other than Primary Money Received by All Iron County School Districts from 1926 to 1946 . . . . .	62

TABLE	PAGE
XXI. Expenditures for General Control Purposes by All Iron County Schools from 1933 to 1946 . . . . .	67
XXII. Per Capita Expenditures for General Control by All Iron County Schools from 1933 to 1946 . . . . .	69
XXIII. Expenditures for Teachers' Salaries All Iron County Schools from 1926 to 1946 . . . . .	71
XXIV. Average Expenditure for Salaries per Teaching Position in All Iron County Schools from 1926 to 1946 . . . .	73
XXV. Distribution and Average Salaries of Teachers by Train- ing and Experience in Iron County Schools, February, 1946 . . . . .	75
XXVI. Per Capita Expenditures for Teachers' Salaries in All Iron County Schools from 1926 to 1946 . . . . .	78
XXVII. Expenditures for Supervision in All Iron County Schools from 1933 to 1946 . . . . .	81
XXVIII. Per Capita Expenditures for Supervision in All Iron County Schools from 1933 to 1946 . . . . .	82
XXIX. Miscellaneous Expenditures for Instruction in All Iron County Schools from 1933 to 1946 . . . . .	84
XXX. Per Capita Miscellaneous Expenditures for Instruction in All Iron County Schools from 1933 to 1946 . . . .	85
XXXI. Total Expenditures for Instruction in All Iron County Schools from 1933 to 1946 . . . . .	87

TABLE	PAGE
XXXII. Per Capita Expenditures for Instruction in All Iron County Schools from 1933 to 1946 . . . . .	88
XXXIII. Total Expended for Auxiliary and Coordinate Affairs in All Iron County Schools from 1933 to 1946 . . . . .	91
XXXIV. Per Capita Expenditures for Auxiliary and Coordinate Affairs in All Iron County Schools from 1933 to 1946. . . . .	94
XXXV. Total Expended for Operation of School Plant in All Iron County Schools from 1933 to 1946 . . . . .	96
XXXVI. Per Capita Expenditures for Operation of School Plant in All Iron County Schools from 1933 to 1946 . . . . .	99
XXXVII. Total Expenditures for Fixed Charges in All Iron County Schools from 1933 to 1946 . . . . .	102
XXXVIII. Per Capita Expenditures for Fixed Charges in All Iron County Schools from 1933 to 1946 . . . . .	103
XXXIX. Total Expenditures for Maintenance in All Iron County Schools from 1933 to 1946 . . . . .	105
XL. Per Capita Expenditures for Maintenance in All Iron County Schools from 1933 to 1946 . . . . .	106
XLI. Total Operating Expenditures in All Iron County Schools from 1926 to 1946 , . . . .	108
XLII. Per Capita Operating Expenditures in All Iron County Schools from 1926 to 1946 . . . . .	109
XLIII. Total Expenditures for Capital Outlay in All Iron County Schools from 1926 to 1946 . . . . .	111



.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

TABLE	PAGE
XLIV. Per Capita Expenditures for Capital Outlay in All Iron County Schools from 1926 to 1946 . . . . .	112
XLV. Per Capita Expenditures for Debt Service in All Iron County Schools from 1926 to 1946 . . . . .	114
XLVI. Total Revenue Expenditures for All Purposes in All Iron County Schools from 1926 to 1946 . . . . .	116
XLVII. Per Capita Revenue Expenditures for All Purposes in All Iron County Schools from 1926 to 1946 . . . . .	117
XLVIII. Estimate of State Aid for Proposed Iron County School District Compared with Actual Income of All Iron County School Districts for 1945-46 . . . . .	121
XLIX. Proposed Budget for County Unit School District for Iron County, Michigan, Compared with Actual Expenditures for All Iron County School Districts for Year 1945-46	128

## CHAPTER I

### INTRODUCTION

#### Background of Problem.

Visiting educators from lower Michigan and from out of the state almost unanimously praise the schools of Iron County and those of other communities on the Iron Ranges of Michigan's great Upper Peninsula. Possibly a certain amount of this praise can be discounted as the idle prattle of speakers seeking to make a friendly impression. Possibly, it is sincere admiration of the generally fine physical plants so common in the area. Perhaps, because conditions in other areas they visit are so bad by contrast, the schools of Iron County and the Upper Peninsula stand out relatively, if not absolutely, at least in the area of school plant facilities.

Unfortunately, fine school plants and satisfactory programs of education for boys and girls cannot be sustained by praise, however sincere. Buildings must be maintained, teachers must be paid, and educational supplies must be purchased with hard cash. The securing of funds for the satisfactory operation of the schools of the Peninsula has become increasingly difficult in recent years. Perhaps the most common topic for discussion amongst school administrators and school board members, wherever and whenever they gather, is school finance, or more accurately, the lack of it.

Administrators are generally agreed that it is indeed for-

1. The first step in the process of the scientific method is to make an observation or ask a question.
2. The second step is to do background research.
3. The third step is to form a hypothesis.
4. The fourth step is to test the hypothesis by conducting an experiment.
5. The fifth step is to analyze the data and draw a conclusion.
6. The sixth step is to communicate the results.
7. The seventh step is to repeat the experiment to verify the results.
8. The eighth step is to make a prediction based on the results.
9. The ninth step is to use the prediction to make a new hypothesis.
10. The tenth step is to test the new hypothesis.
11. The eleventh step is to analyze the data and draw a conclusion.
12. The twelfth step is to communicate the results.
13. The thirteenth step is to repeat the experiment to verify the results.
14. The fourteenth step is to make a prediction based on the results.
15. The fifteenth step is to use the prediction to make a new hypothesis.
16. The sixteenth step is to test the new hypothesis.
17. The seventeenth step is to analyze the data and draw a conclusion.
18. The eighteenth step is to communicate the results.
19. The nineteenth step is to repeat the experiment to verify the results.
20. The twentieth step is to make a prediction based on the results.
21. The twenty-first step is to use the prediction to make a new hypothesis.
22. The twenty-second step is to test the new hypothesis.
23. The twenty-third step is to analyze the data and draw a conclusion.
24. The twenty-fourth step is to communicate the results.
25. The twenty-fifth step is to repeat the experiment to verify the results.
26. The twenty-sixth step is to make a prediction based on the results.
27. The twenty-seventh step is to use the prediction to make a new hypothesis.
28. The twenty-eighth step is to test the new hypothesis.
29. The twenty-ninth step is to analyze the data and draw a conclusion.
30. The thirtieth step is to communicate the results.
31. The thirty-first step is to repeat the experiment to verify the results.
32. The thirty-second step is to make a prediction based on the results.
33. The thirty-third step is to use the prediction to make a new hypothesis.
34. The thirty-fourth step is to test the new hypothesis.
35. The thirty-fifth step is to analyze the data and draw a conclusion.
36. The thirty-sixth step is to communicate the results.
37. The thirty-seventh step is to repeat the experiment to verify the results.
38. The thirty-eighth step is to make a prediction based on the results.
39. The thirty-ninth step is to use the prediction to make a new hypothesis.
40. The fortieth step is to test the new hypothesis.
41. The forty-first step is to analyze the data and draw a conclusion.
42. The forty-second step is to communicate the results.
43. The forty-third step is to repeat the experiment to verify the results.
44. The forty-fourth step is to make a prediction based on the results.
45. The forty-fifth step is to use the prediction to make a new hypothesis.
46. The forty-sixth step is to test the new hypothesis.
47. The forty-seventh step is to analyze the data and draw a conclusion.
48. The forty-eighth step is to communicate the results.
49. The forty-ninth step is to repeat the experiment to verify the results.
50. The fiftieth step is to make a prediction based on the results.
51. The fifty-first step is to use the prediction to make a new hypothesis.
52. The fifty-second step is to test the new hypothesis.
53. The fifty-third step is to analyze the data and draw a conclusion.
54. The fifty-fourth step is to communicate the results.
55. The fifty-fifth step is to repeat the experiment to verify the results.
56. The fifty-sixth step is to make a prediction based on the results.
57. The fifty-seventh step is to use the prediction to make a new hypothesis.
58. The fifty-eighth step is to test the new hypothesis.
59. The fifty-ninth step is to analyze the data and draw a conclusion.
60. The sixtieth step is to communicate the results.
61. The sixty-first step is to repeat the experiment to verify the results.
62. The sixty-second step is to make a prediction based on the results.
63. The sixty-third step is to use the prediction to make a new hypothesis.
64. The sixty-fourth step is to test the new hypothesis.
65. The sixty-fifth step is to analyze the data and draw a conclusion.
66. The sixty-sixth step is to communicate the results.
67. The sixty-seventh step is to repeat the experiment to verify the results.
68. The sixty-eighth step is to make a prediction based on the results.
69. The sixty-ninth step is to use the prediction to make a new hypothesis.
70. The seventieth step is to test the new hypothesis.
71. The seventy-first step is to analyze the data and draw a conclusion.
72. The seventy-second step is to communicate the results.
73. The seventy-third step is to repeat the experiment to verify the results.
74. The seventy-fourth step is to make a prediction based on the results.
75. The seventy-fifth step is to use the prediction to make a new hypothesis.
76. The seventy-sixth step is to test the new hypothesis.
77. The seventy-seventh step is to analyze the data and draw a conclusion.
78. The seventy-eighth step is to communicate the results.
79. The seventy-ninth step is to repeat the experiment to verify the results.
80. The eightieth step is to make a prediction based on the results.
81. The eighty-first step is to use the prediction to make a new hypothesis.
82. The eighty-second step is to test the new hypothesis.
83. The eighty-third step is to analyze the data and draw a conclusion.
84. The eighty-fourth step is to communicate the results.
85. The eighty-fifth step is to repeat the experiment to verify the results.
86. The eighty-sixth step is to make a prediction based on the results.
87. The eighty-seventh step is to use the prediction to make a new hypothesis.
88. The eighty-eighth step is to test the new hypothesis.
89. The eighty-ninth step is to analyze the data and draw a conclusion.
90. The ninetieth step is to communicate the results.
91. The ninety-first step is to repeat the experiment to verify the results.
92. The ninety-second step is to make a prediction based on the results.
93. The ninety-third step is to use the prediction to make a new hypothesis.
94. The ninety-fourth step is to test the new hypothesis.
95. The ninety-fifth step is to analyze the data and draw a conclusion.
96. The ninety-sixth step is to communicate the results.
97. The ninety-seventh step is to repeat the experiment to verify the results.
98. The ninety-eighth step is to make a prediction based on the results.
99. The ninety-ninth step is to use the prediction to make a new hypothesis.
100. The hundredth step is to test the new hypothesis.

tunate that our physical plant was built prior to 1930, since it would be utterly impossible to duplicate that plant today in the face of the financial crisis that so many schools face today. Iron County school administrators, at least, feel an almost nostalgic longing for a return to the "good old days" when school finance was merely a simple problem in elementary arithmetic involving only the totaling of budgetary needs and a division of that total by the assessed valuation of the district. With school finance a relatively minor problem, administrators might be expected to spend the greater portion of their time and energy upon the development and supervision of the educational program. In recent years the situation has been reversed. Very little time or energy is left for education because the alert administrator must spend so much time on the financial problems of his school.

#### Pertinent Questions.

What has happened to cause such a reversal of emphasis as suggested? What has happened to the tax base supporting the schools of Iron County? What has been the effect of the highly restrictive Fifteen Mill Tax Limitation Amendment voted by the tax-conscious realtors and poverty-stricken farmers in 1932? What was the effect of the Great Depression upon the value of mining properties in Iron County? Have constantly increasing state grants-in-aid solved the income problem for Iron County schools? Obviously not, but why? Did the war contribute to the schools' financial difficulties?





What is the effect of the present inflationary trend on local school finances, both from an income and from an expenditure point of view?

What has happened to the population of the county and especially to the school population? What has been the effect of population change on school finances? What is the status of teachers' salaries and what are the prospects for holding superior teachers or of attracting new talent? Are salaries widely at variance amongst the seven school districts of Iron County? How do districts compare in local ability to support their schools?

Can ways be found to increase school income from local, state, and federal sources? Can existing revenues be more efficiently expended? Are there areas of unnecessary duplication of school services in transportation, administration, et cetera? What of teacher-pupil ratio and its relation to finance?

These and many related questions arise in the mind of an administrator whose past twenty-one years have been joined, for good or for ill, to the schools of Iron County -- fourteen years as a classroom teacher and seven years as County School Commissioner. It is because that administrator is constantly called upon to explain the financial crisis facing the schools under his jurisdiction, and because he is often unable to do so, except in a broad and general way, that this study is undertaken.



Purpose of Thesis -- Statement of Problem.

A thorough and completely exhaustive inquiry into the problems raised in the preceding paragraphs is much too great a task to be adequately performed in a limited study. This investigation will merely attempt to throw the light of statistical fact upon only the more important phases of the problem. Some questions which may appear to pose serious problems at the outset, may prove less important than anticipated when exposed to the light of inquiry. Others may be discovered whose existence is not suspected at the beginning of the study.

In this investigation it is proposed, therefore, to inquire into the reasons for the present crisis in the finances of Iron County's seven school districts. What are the facts about total and school population? What have been and what are now the sources of school revenues and how have local and state-wide conditions affected these revenues? What are the facts concerning the manner in which school revenues have been raised and expended? Might school revenues and expenditures be affected by reducing the existing seven township districts to one county-wide administrative unit? What conclusions can be drawn from the facts presented and what definite and practicable recommendations can be made from the conclusions?

### Sources and Treatment of Data.

Fortunately, the complete annual reports of all seven Iron County school districts for the past twenty years are available for examination. From these records, tables will be prepared and analyzed to show sources of income, distribution of expenses, and school population status and trends. Some information concerning teacher-pupil ratios will be taken from special inquiries made in co-operation with individual districts. Information concerning salaries for the year ending June, 1946, will be taken from a study completed in January, 1946, by the school administrators of Iron County under the joint direction of K. W. Schulze, Superintendent of Schools, Crystal Falls, Michigan, and E. Burr Sherwood, Commissioner of Schools of Iron County.

The factors which have affected school revenues and expenditures in Iron County during the period 1926 through 1946 will be examined in Chapter II. General and school population statistics will be analyzed. A survey of school revenues and their sources will be presented and analyzed. Revenue expenditures for all Iron County school districts will be studied carefully and critically. In Chapter III the financial aspects of an hypothetical county unit school district will be explored to determine whether savings can be made in school expenses and whether income can be increased. Chapter IV will include a general review of the findings of the study together with conclusions and recommendations for action.





How Study May Be Used.

There are several ways in which the completed study may be used, namely, (1) it will be a quick source of reference for the personnel of the County School Commissioner's office; (2) it may be used as the basis of further studies at either the county level or the school district level where such studies require broad statistical background; (3) it may provide the basic statistical data for any subsequent program of school-district reorganization; (4) it may be used by boards of education in determining fiscal policies by providing an historical background of financial data and trends; (5) it may provide boards of education and administrators with data for analysis of the efficiency of their educational programs; and (6) it may furnish basic information to the public in connection with appeals for adequate financial support for schools. Possibly other practicable uses will occur to school officials upon examination of the study. It is hoped that it will be a contribution in assisting the public to reach a decision in favor of better schools for the money they provide. Finally, the value to the investigator has been great, affording him a deeper insight into the problems of public school finance and operation.

No such inquiry has been made on a county-wide basis in Iron County so far as can be determined. The Michigan Public Education

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. The text outlines various methods for organizing and storing data, suggesting that digital tools can be more efficient than traditional paper-based systems.

2. The second section focuses on the role of communication in project management. It argues that clear and consistent communication is the key to ensuring that all team members are aligned with the project's goals and objectives. The author provides several practical tips for improving communication, such as holding regular meetings and using collaborative software.

3. The third part of the document addresses the challenges of time management. It acknowledges that time is a limited resource and that effective time management is crucial for meeting deadlines and avoiding stress. The text offers strategies for prioritizing tasks and delegating responsibilities, as well as advice on how to handle interruptions and distractions.

4. The fourth section discusses the importance of flexibility in planning. It notes that plans often change, and being able to adapt to new circumstances is a valuable skill. The author encourages readers to create flexible plans that can be adjusted as needed, rather than rigidly sticking to a single course of action.

5. The fifth part of the document explores the concept of risk management. It explains that identifying potential risks early on can help prevent problems and minimize their impact. The text provides a framework for assessing risks and developing mitigation strategies, as well as advice on how to communicate about risks to stakeholders.

6. The sixth section focuses on the importance of documentation. It stresses that keeping detailed records of decisions, actions, and outcomes is essential for tracking progress and learning from experience. The author suggests using a variety of tools and formats for documentation, including spreadsheets, databases, and narrative reports.

7. The seventh part of the document discusses the role of leadership in project management. It argues that effective leaders are able to inspire and motivate their teams, while also providing clear direction and support. The text offers advice on how to develop leadership skills and how to create a positive team culture.

8. The eighth section focuses on the importance of collaboration. It notes that many projects require input from multiple stakeholders, and that effective collaboration is essential for success. The author provides tips for fostering collaboration, such as encouraging open communication and shared decision-making.

9. The ninth part of the document discusses the importance of monitoring and evaluation. It explains that regularly checking progress and performance is essential for staying on track and making adjustments as needed. The text offers advice on how to set up monitoring systems and how to use the data to improve project outcomes.

10. The final section of the document provides a summary of the key points discussed throughout the text. It reiterates the importance of record-keeping, communication, time management, flexibility, risk management, documentation, leadership, collaboration, and monitoring. The author concludes by encouraging readers to apply these principles in their own work and to continue learning and improving.

Study Commission has done the job for the state as a whole<sup>1</sup> and individual school superintendents have done piece-meal bits of research within their own districts. There is, therefore, little light to guide the inquirer through the maze of statistics necessary to secure significant results.

---

<sup>1</sup> "The Report of the Commission", The Improvement of Public Education in Michigan (Lansing, Michigan: Published by the Authority of the Michigan Education Study Commission, July, 1944) 301 pp.

CHAPTER II

FACTORS AFFECTING THE FINANCIAL STATUS OF SCHOOLS

IN IRON COUNTY, MICHIGAN

A. POPULATION STATISTICS

Like many counties in the northern part of Michigan, Iron County's general population has diminished from its 1920 peak of 22,107 persons. In 1930 the federal census showed a decline of 1302 persons, or 5.9 per cent. A further loss of 562 persons, or 2.7 per cent, was experienced during the succeeding decade. By 1940, the last official census date, the total decline from the 1920 high point was 1864 persons, or 8.6 per cent.

Accurate population statistics are not available for the present time, but an estimate of general population is included in Table I on page 9. This estimate is based partially upon an examination of the figures for the last general rationing registration in February, 1943, at which time 16,435 ration books were issued. More than two thousand men and women were in service at that time, according to the records of the Iron County Selective Service Board. By the summer of 1946 all but about 400 of them had returned from service and many families had returned from the cities where they had gone earlier to accept jobs in war industries. The estimate is also based upon the relationship between school census figures of 1930 and 1940 to the general population statistics for the same dates. After allowance was made for the possible con-

TABLE I

POPULATION OF SCHOOL DISTRICTS OF IRON COUNTY, MICHIGAN  
BY DECADES FROM 1910 TO 1945

DISTRICT	POPULATION BY DECADES				
	*1910	1920	1930	1940	**1945
BATES	573	1,181	1,263	1,278	1,210
CRYSTAL FALLS	5,413	5,369	4,801	4,433	3,602
HEMATITE	1,115	1,075	985	889	786
IRON RIVER	5,535	6,731	6,498	6,293	5,691
MANSFIELD	355	215	195	216	171
MASTODON	385	1,492	1,044	1,013	1,062
STAMBAUGH	5,760	6,044	6,019	6,121	6,193
COUNTY TOTALS	19,136	22,107	20,805	20,243	18,715

\* U. S. Federal Census.

\*\*Estimate of 1945 arrived at according to explanation on preceeding page.

NOTE: This table should be read as follows: In 1910 the population of Bates Township School District, as shown by the Federal Census, was 573 persons. By 1940 the population of Bates Township School District had increased to 1278 persons. The estimated population of the same district for 1945 is 1210 persons. The remainder of the table should be read in like manner.



tinuing decline in the proportion of school-census children to the general population, the estimated ratio was compared with the school census figures of 1945. It is not unreasonable to assume, therefore, that there are only approximately 18,500 people in Iron County at the present time. Assuming this to be true, there has been a decline from the 1920 peak of between three and four thousand persons, or between 14 and 18 per cent of the 1920 total.

Table I shows clearly that the decline in population during the past quarter century has not been uniform among the seven school districts of Iron County. Two sets of figures will be especially noted, namely, the size of Bates and Mastodon Township Districts in 1910 and 1920. The former increased in size more than 100 per cent during the decade, while the latter increased approximately 387 per cent. World War I created a tremendous demand for iron ore. This led to the expansion of mining operations in Bates and Mastodon on a relatively larger scale than in the other districts. A factor in considering the population of Bates is that in recent years it has developed as a subsistence residential suburb of the city of Iron River which it adjoins.

The sharpest losses in population occurred in Crystal Falls and Mansfield districts. The former declined 33 per cent and the latter 50 per cent from their 1910 peak population. In both of these districts the loss can be explained by the closing of mines and the consequent migration of people to other communities within Iron County, or to other districts.





The estimates of general population in 1945 for Iron River and Stambaugh present an interesting situation. Table I shows that Iron River has maintained a general population slightly higher than that of Stambaugh. The estimate for 1945, on the other hand, shows a slight increase for the general population of Stambaugh and a rather sharp loss for Iron River. The school census figures for Stambaugh, however, have been consistently higher than for Iron River. In 1930, when the general population of Iron River was 6,498, its school census was 2282, or 35.1 per cent of the general population. In 1930 the population of Stambaugh was 6,019, but its school census of 2537 was 42.1 per cent of the general population. Ten years later Iron River's general population dropped to 6,293 and its school census to 1829, or 29.1 per cent. During the same decade the general population of Stambaugh increased to 6,121 and its school census dropped to 1903, or 31.1 per cent of the general population. In 1945 the school census of Iron River had declined further to 1463, as compared to 1592 for Stambaugh. It is because of the higher school census of the Stambaugh district in 1945 that the estimate for the general population is so much higher than the estimate for Iron River. There is, therefore, a question concerning the accuracy of the 1945 estimates for Iron River, which may be too low, and for Stambaugh, which may be too high.

One possible explanation for the higher ratio of school census to general population for Stambaugh may lie in the fact that



Iron River is the business center of a community embracing the school districts of Iron River, Stambaugh, and Bates. There may be a disproportionate number of business and professional workers' families, with fewer children, on the average, than in the other districts which are mostly residential in character. This explanation should not be accepted without reservation, however, since on May 31, 1946, Iron River had 558 children under 5 years of age as compared to 427 such children in Stambaugh. This would indicate, other things being equal, that the present population, contrary to the figures shown in Table I, may be higher in Iron River than in Stambaugh. It may also indicate that the method used in estimating 1945 populations may be incorrect, at least as it applies to the statistics for Iron River and for Stambaugh.

The 1940 Census classifies Iron County as being more than 50 per cent rural. This is misleading because of the nature of mining communities. The county has two municipalities which are urban by Census standards. These are the city of Iron River, on the west side of the county, and the city of Crystal Falls, sixteen miles to the east of Iron River. Grouped around Iron River city, whose 1940 population was 4,416, are the city of Stambaugh (population 2081), the village of Caspian (population 1801), the village of Gaastra (population 703), and the village of Mineral Hills (population 344). Mineral Hills is a part of the Iron River Township School District and adjoins the city of Iron River on the North. The city of



Stambaugh is immediately to the South of Iron River city. Adjoining Stambaugh on the South is Caspian, and adjoining Caspian on the East is the village of Gaastra. Sociologically, there is one community whose logical center is the city of Iron River. Adjoining Crystal Falls city are a group of mining "locations" which are a part of the township of Crystal Falls, politically, but are in reality as urban as the city of Crystal Falls. Possibly 70 per cent of the population of Iron County, therefore, lies within urban limits. This fact must be considered in school reorganization. All of the cities and villages are part of Township or Township-Rural-Agricultural school districts, and except for pointing out the concentration of population into two general areas, their separate population statistics have little significance for this study.

It is always dangerous to attempt any kind of a prognosis, but it is unlikely that Iron County can expect much population increase in the near future. The chief industry in the county is iron mining. Local mines have been affected by technological advances in mining methods which require less men to produce a given quantity of iron ore. Since technological improvements follow earlier improvements, it is reasonable to expect that local employment trends in the mines will be downward as time goes on. In 1941 a land-use survey was made in Iron County by a local committee in co-operation with Michigan State College and the United States Department of Agriculture. This investigator was an active member

of that committee which published a report of its findings.<sup>2</sup> The report suggests that agriculture of certain types is capable of some expansion, but limited amounts of good tillable soil preclude the development of the county as a first-rate agricultural area. The report suggests that dairying be encouraged. Since the publication of the report a large cheese factory has located in Crystal Falls which employs from thirty to forty workers besides doing much to encourage the development of dairying. Since Pearl Harbor large scale potato farming has developed. In 1945, according to records in the office of the Iron County Agricultural Agent, five growers harvested more than 100 acres each of quality potatoes. Success in this type of farming, however, appears to require much heavy equipment and relatively large acreages of level to rolling soil. Physical handicaps of soil topography probably will prevent any significant expansion in this area.

One of the most promising possibilities appears to be in the expansion of the tourist business. Local tourist information centers report a record number of tourists and decry the lack of adequate facilities to properly service those who come to seek rest and recreation in the Upper Peninsula. Several tourist entertainment projects are under construction currently, however, and more

---

<sup>2</sup> Iron County Land-Use Committee, "A Progress Report on Land Use for Iron County", (mimeographed Report of the Committee, Crystal Falls, Michigan, 1941), 97 pp.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the statistical analysis performed.

3. The third part of the document presents the results of the study. It includes a series of tables and graphs that illustrate the findings of the research. The data shows a clear trend of increasing activity over time.

4. The fourth part of the document discusses the implications of the findings. It suggests that the results have significant implications for the field of study and may lead to further research in this area.

5. The fifth part of the document concludes the study. It summarizes the main findings and provides a final statement on the importance of the research.

6. The sixth part of the document includes a list of references to the sources used in the study. It also includes a list of figures and tables that are included in the document.

7. The seventh part of the document includes a list of appendices. These appendices provide additional information and data that are not included in the main body of the document.

8. The eighth part of the document includes a list of footnotes. These footnotes provide additional information and clarification on the content of the document.

9. The ninth part of the document includes a list of acknowledgments. These acknowledgments thank the individuals and organizations that provided support and assistance during the study.

10. The tenth part of the document includes a list of references. These references provide additional information and sources that are relevant to the study.



will probably get underway as demand dictates and materials for construction of buildings becomes available. Whether expansion of the recreation business can offset the number of persons displaced by new machinery within the mines is problematical.

At the present time the remaining stands of timber and merchantable pulp wood are being cut at an alarming rate. The Federal Forest Ranger in charge of the Ottawa National Forest, which is located partially in Iron County, has repeatedly stated that the timber resources of the area are being depleted much more rapidly than either man or nature can replace them.

Of greater significance to this investigation than general population statistics are those concerning school population. Table II portrays the changes in the number of persons on the school census between the years 1920 and 1946. The school census figures for the year 1920 are placed in Table II in order that they may be compared with the general population statistics for the same year shown in Table I, page 9.

Table II shows a sharp decline in the number of children of school age in Iron County. From a high figure of 8,069 in the year 1928 it has dropped to 4,710 in 1946, a loss of 41.6 per cent. Losses sustained by individual districts ranged from 36.7 per cent for Iron River to 59.8 per cent for Crystal Falls.

While both school census and school membership increased more rapidly than general population during the decade 1920 to 1930,



TABLE II

## SCHOOL CENSUS BY DISTRICTS, IRON COUNTY, MICHIGAN FROM 1920 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY* TOTAL
1920	367	2269	456	2059	66	414	2133	7764
1925	414	2130	428	2132	82	468	2260	7914
1926	414	2058	424	2177	87	449	2263	7872
1927	445	2056	406	2208	86	465	2388	8054
1928	439	1967	414	2226	76	457	2490	8069
1929	457	1811	410	2239	73	431	2494	7915
1930	478	1705	397	2282	74	442	2537	7915
1931	506	1666	394	2272	75	438	2519	7872
1932	518	1621	389	2219	76	450	2490	7763
1933	523	1525	367	2160	79	469	2409	7532
1934	521	1478	344	2145	77	447	2359	7371
1935	519	1435	327	2093	73	421	2271	7139
1936	498	1383	318	2078	68	432	2227	7004
1937	495	1364	287	2005	68	416	2135	6770
1938	464	1320	267	1959	64	400	2140	6614
1939	449	1175	267	1897	63	371	2008	6230
1940	429	1215	247	1829	59	355	1903	6037
1941	390	1142	223	1716	59	326	1822	5678
1942	371	1137	202	1725	51	314	1728	5528
1943	354	998	214	1709	42	285	1698	5300
1944	337	979	198	1600	48	276	1635	5093
1945	311	926	202	1463	44	273	1592	4810
1946	302	914	196	1444	45	262	1547	4710

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

Read the table as follows: The number of children on the school census in May, 1920 in the Bates Township District was 367. In May, 1946 there were 302 on the school census. Read the remainder of the table in like manner.

...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
...the ... of ...  
...the ... of ...

this trend was reversed during the decade 1930 to 1940. Between 1920 and 1930 the general population of Iron County decreased 5.9 per cent from 22,107 to 20,805. During the same decade, however, the school census increased 2.1 per cent from 7,764 to 7,915, and actual school membership increased 2.4 per cent from 6,345 to 6,499. By 1940, the general population had declined still further to 20,243, a loss of 2.7 per cent. The school census declined from 7,915 to 6,037, a loss of 23.6 per cent, and year-end membership declined from 6,499 to 4,802, a loss of 26 per cent. Stated in another way, the ratio of school census to general population declined from 35.1 per cent in 1920 to 29.8 per cent in 1940, after rising to 38 per cent in 1930.

If the school census and the general population were similarly proportionate in 1945, after making allowance for continued decline in that ratio, the total population of Iron County in 1945 would approximate 18,700 persons as shown in Table I, page 9. This estimate is computed in the following manner: During the 1930 to 1940 decade the average rate of decline of the ratio of school census to general population per year was .82 per cent. At the same rate of decline the ratio of school census to general population in 1945 would have been 25.7 per cent. The 1945 school census was 4,810. If 4,810 is divided by .257, the quotient, 18,715, would be the approximate population of the County in 1945.

Attention has been called to the rapidly declining school



population. Table II showed this decline in the school potential. School administration is more concerned, however, with the actual number of boys and girls attending school at any given time, the distribution of pupils throughout the grades, and the retentive power of the schools. Table III portrays the year-end membership by grades for all schools within the county from 1920 through 1946. The figures for 1920 are used in order to make comparisons with general population and school census statistics for the same years.

The abbreviation Kgn-6 (kindergarten through sixth grade) and the abbreviation 7-12 (seventh grade through twelfth grade) are used by the Michigan Department of Public Instruction in most references to elementary and secondary membership. They will be used in the same manner in Table III and in other tables of similar nature.

Attention is called to the fact that in 1920 there were 4,939 elementary children (kindergarten through 6th grade) and only 1,406 secondary pupils (grades 7 through 12). The number of elementary children has declined steadily until 1946 at which time an increase of 98 children, or 5 per cent, is recorded. Secondary enrollment continued to increase until 1932 when the enrollment in grades 7 through 12 reached 2,846 including post-graduates, more than doubling the 1920 secondary membership. Since 1932, however, secondary enrollments have likewise decreased sharply to 1,659 in June, 1946, or a loss of 42 per cent from the 1932 peak enrollment. Further study of Table III will reveal figures which suggest that the de-

1. The first part of the report deals with the general situation of the country and the position of the various groups of the population. It is a very interesting and well written account of the country and its people. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

2. The second part of the report deals with the economic situation of the country. It is a very interesting and well written account of the economic situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

3. The third part of the report deals with the social situation of the country. It is a very interesting and well written account of the social situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

4. The fourth part of the report deals with the political situation of the country. It is a very interesting and well written account of the political situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

5. The fifth part of the report deals with the cultural situation of the country. It is a very interesting and well written account of the cultural situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

6. The sixth part of the report deals with the educational situation of the country. It is a very interesting and well written account of the educational situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

7. The seventh part of the report deals with the health situation of the country. It is a very interesting and well written account of the health situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

8. The eighth part of the report deals with the religious situation of the country. It is a very interesting and well written account of the religious situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

9. The ninth part of the report deals with the legal situation of the country. It is a very interesting and well written account of the legal situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.

10. The tenth part of the report deals with the military situation of the country. It is a very interesting and well written account of the military situation of the country. The author has done a great deal of research and has gathered a wealth of material. The report is a valuable contribution to the knowledge of the country and its people.



TABLE III

## YEAR-END MEMBERSHIP BY GRADES OF ALL IRON COUNTY, MICHIGAN SCHOOLS FROM 1920 TO 1946

YEAR	KG	1	2	3	4	5	6	7	8	9	10	11	12	Other	K - 6	7 - 12
1920	694	876	719	720	723	641	566	462	355	232	143	105	89	20	4939	1406*
1926	499	696	667	740	693	707	635	636	498	429	222	212	160	10	4637	2187
1927	536	599	584	645	695	636	620	587	565	419	282	191	183	21	4315	2248
1928	519	568	523	605	663	647	614	610	507	488	318	166	171	77	4139	2337
1929	525	636	567	557	625	638	665	596	577	485	377	248	200	14	4143	2497
1930	477	622	565	564	505	589	623	636	523	544	369	316	242	14	3845	2644
1931	449	603	543	541	549	521	586	638	567	501	437	279	310	20	3792	2752
1932	401	556	528	526	537	556	490	551	602	560	412	373	273	75	3594	2846
1933	357	471	510	492	528	535	487	469	493	515	428	366	318	104	3580	2693
1934	321	435	451	524	488	526	495	528	415	450	403	371	327	43	3240	2537
1935	332	414	392	466	516	486	498	491	451	381	397	336	337	39	3104	2432
1936	344	403	402	400	496	520	456	464	457	422	340	344	322	53	3021	2402
1937	276	422	398	395	412	502	485	442	436	424	366	305	311	50	2890	2334
1938	281	336	411	393	394	419	473	481	416	415	383	326	299	34	2707	2354
1939	262	335	345	399	393	403	412	478	436	390	387	343	317	37	2549	2388
1940	283	313	315	340	394	388	386	400	457	418	356	353	353	46	2419	2383
1941	249	306	299	313	349	374	375	386	380	409	388	335	344	45	2265	2287
1942	256	302	304	296	313	340	366	370	366	335	345	340	305	22	2177	2083
1943	255	325	300	287	276	313	329	349	336	343	287	250	295	42	2085	1902
1944	252	326	295	304	275	269	317	319	321	299	302	234	224	39	2038	1738
1945	242	313	316	273	285	268	253	303	292	306	280	274	240	1	1950	1696
1946	263	326	314	311	278	294	262	267	289	289	300	256	257	1	2048	1659

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

Read the table as follows: In June, 1920, there were 694 children enrolled in all of the kindergartens of Iron County and there were 89 seniors. There were 4,939 pupils enrolled in the elementary grades and 1,406 in the upper six grades. "Other" pupils are considered as secondary enrollees because they are nearly all post-graduates. The remainder of the table should be read in like manner.

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

6. The sixth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

7. The seventh part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

8. The eighth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

9. The ninth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

10. The tenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

11. The eleventh part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

12. The twelfth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

13. The thirteenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

14. The fourteenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

15. The fifteenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

16. The sixteenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

17. The seventeenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

18. The eighteenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

cline in secondary enrollment will continue for several years.

Notice should also be taken of the apparent improvement in the retentive power of the schools of Iron County as revealed by Table III. In 1920, 876 children completed the 1st grade. This class graduated in 1931 with a membership of 310, or 35 per cent of the 1st grade enrollment. The graduating class of 1946, while having a membership of only 257, did hold 62 per cent of its membership of 414 1st graders who were enrolled in 1945. Employment opportunities in the Iron Industry do not attract high school boys as they did a generation ago. Other outside employment opportunities for youth have not been plentiful and have not, therefore, attracted many high school boys and girls. The armed services did attract several older boys, many of whom arranged to graduate in absentia, or who have returned to high school upon separation from service.

Table IV shows the ratio of year-end school membership to the current census of children between the ages of 5 and 19 inclusive. In general, the ratio of children of school age attending school to the total number of such children appears to have declined since 1920. Eighty-one and seven-tenths per cent of all children between the ages of 5 and 19, inclusive, were actually in school at the end of the school year 1920, whereas only 78.7 per cent of the 5 to 19 year old youth were in school in June, 1946. This fact seems inconsistent with the findings on Table III, page 19, which appeared to show that the retentive power of the



TABLE IV

RATIO OF YEAR-END SCHOOL MEMBERSHIP TO SCHOOL CENSUS IN IRON COUNTY, MICHIGAN SCHOOLS FROM 1920 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY* TOTAL
1920	76.3**	84.1	86.0	77.9	69.7	89.9	81.5	81.7
1926	80.0	84.4	92.5	85.1	52.9	97.9	89.9	86.8
1927	74.4	79.6	87.0	84.5	58.1	83.7	83.3	82.1
1928	73.6	80.6	92.0	81.3	61.9	82.3	81.9	80.2
1929	79.2	82.6	91.2	84.4	68.5	89.5	78.3	82.3
1930	77.0	82.4	86.1	86.4	47.3	88.2	81.5	83.1
1931	75.7	81.0	87.8	89.0	45.3	86.1	80.7	83.1
1932	75.3	80.3	95.9	89.1	44.7	82.4	80.0	82.9
1933	74.0	80.5	90.7	83.7	36.7	76.1	78.4	80.1
1934	65.8	80.8	83.4	81.0	38.9	79.8	76.4	77.9
1935	69.7	75.6	87.8	81.8	41.1	83.6	77.7	77.5
1936	69.9	76.7	85.2	79.8	41.2	79.2	77.1	77.1
1937	68.7	77.1	83.9	80.0	41.2	76.2	76.3	77.2
1938	71.3	75.8	86.1	77.1	48.4	77.3	77.1	76.5
1939	67.0	84.9	77.5	80.3	44.4	79.2	78.9	79.2
1940	63.6	81.0	94.7	80.0	39.0	79.4	80.6	79.5
1941	66.7	84.5	105.8	80.2	45.8	81.6	77.9	80.2
1942	65.5	77.5	95.0	78.0	33.3	81.2	76.7	77.1
1943	64.7	83.2	78.0	73.2	33.3	76.8	76.6	75.6
1944	61.1	82.2	77.3	75.1	29.2	79.0	72.0	74.1
1945	64.3	82.4	76.2	78.4	20.4	80.9	72.4	75.7
1946	65.6	84.4	77.5	81.7	33.3	81.3	75.7	78.7

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

\*\*per cent.

Read the table as follows: In 1920, 76.3 per cent of children on the Bates Township School Census were in school. In 1946, 65.6 per cent of the census children were in school. Read the table in like manner for each year.

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of the names and addresses of the members of the committee.

3. The third part of the document is a list of the names and addresses of the members of the committee.

4. The fourth part of the document is a list of the names and addresses of the members of the committee.

5. The fifth part of the document is a list of the names and addresses of the members of the committee.

6. The sixth part of the document is a list of the names and addresses of the members of the committee.

7. The seventh part of the document is a list of the names and addresses of the members of the committee.

8. The eighth part of the document is a list of the names and addresses of the members of the committee.

9. The ninth part of the document is a list of the names and addresses of the members of the committee.

schools of Iron County had improved. Further findings reconcile this apparent inconsistency. The startling declines in school census over the twenty years covered by this study, as shown in Table II, page 16, can be partly explained by the fact that school population is aging proportionately just as the general population is aging. The names of more twenty-year old youth are stricken from the school census lists each year than there are new five-year old children to replace them. In 1927, for example, the records of Stambaugh Township School District showed 304 entries and only 178 withdrawals. In 1945, there were only 156 entries while 199 left the rolls at twenty years of age. This fact also has some bearing on the ratio between the school census and the general population and was considered in making the estimate of general population for 1945 as shown in Table I, page 9.

Bates Township School District maintains only a ten-grade school. Mansfield Township School District maintains only a six-grade unit. This explains the relatively low figures for these two districts. In 1941, Hematite shows a ratio of 105.8 per cent of its school census children in school. During that year the ninth and tenth grades from the Covington School District in Baraga County attended school in the Hematite District. They were counted as year-end members but their names did not appear on the census rolls. Iron River and Crystal Falls Districts likewise have non-resident children attending their schools and the figures for these districts reflect the presence of such non-residents.

All formulas for the distribution of state-aid to local school districts provide for a greater allowance for secondary children than for elementary children. This difference is based upon the presumed higher cost of secondary education. If this assumption is accepted, partial explanation can be made for the failure of school costs in Iron County to decline as enrollments decline. Table III, page 19, showed that elementary enrollments have declined more than 50 per cent since 1920, and that secondary enrollments, while declining since 1932, are still higher than in 1920. Instructional costs in high schools are higher partially because high school teachers generally have more training and experience than elementary teachers. This usually places them higher in the salary schedules even in systems which maintain single salary schedules. Classes are generally smaller in the secondary grades and material costs, such as laboratory fees, add further to the cost differential. Again granting the assumption of higher costs, Table V, page 24, will be of interest in support of the above analysis. This table is somewhat of a repetition of Table III except that it breaks down school membership into five-year periods or intervals for all of the seven county school districts and shows the proportion of elementary membership to secondary membership in the totals. The percentage figures in the last line of Table V show that in 1926, 68 per cent of the school membership for the county as a whole were elementary children and 32 per cent were secondary. The figures for 1920 are



TABLE V

RATIO OF ELEMENTARY TO SECONDARY ENROLLMENTS AT FIVE-YEAR INTERVALS  
IN ALL IRON COUNTY SCHOOLS FROM 1920 TO 1946

DISTRICT*	YEAR AND SCHOOL LEVELS											
	1920		1926		1931		1936		1941		1946	
	Ele- men- tary	Sec- ond- ary	Ele- men- tary	Sec- ond- ary	Ele- men- tary	Sec- ond- ary	Ele- men- tary	Sec- ond- ary	Ele- men- tary	Sec- ond- ary	Ele- men- tary	Sec- ond- ary
BATES	221	59	265	66	273	110	228	120	148	112	131	67
CRYSTAL FALLS	1453	456	1091	636	693	657	615	446	499	466	432	339
HEMATITE	296	96	243	149	194	152	130	141	91	145	81	71
IRON RIVER	1213	395	1252	601	1150	872	894	763	680	697	633	550
MANSFIELD	41	5	36	10	32	2	28	1	27	0	15	0
MASTODON	325	47	320	120	228	149	168	174	126	140	112	101
STAMBAUGH	1390	348	1430	605	1213	819	961	755	694	727	644	527
TOTALS IRON COUNTY	4939	1406	4637	2187	3763	2761	3024	2400	2265	2287	2048	1659
PER CENT TOTAL ENROL- MENT ELEMENTARY AND SECONDARY GRADES	78	22	68	32	58	42	56	44	50	50	55	45
*Source: Annual reports filed in the office of the County Commissioner of Schools.												

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

Read the table as follows: In June, 1926, there were 265 enrolled in the elementary grades of Bates Township and 66 enrolled in the secondary grades. Totals for the county for the same year were 4,637 elementary and 2,187 secondary enrollees. In 1920, 78 per cent of all children in school were in the elementary grades and 22 per cent were in the secondary grades. Read the remainder of the table in like manner.



included in order that comparison can be made with general population statistics and school census figures for the same year. It will be noted that statistics for 1920 showing 78 per cent of enrollment as elementary and 22 per cent as secondary are in the same trend as subsequent intervals. By 1941 the elementary and secondary enrollments reached practical equality. Figures for 1946, however, show a reversal of trend with elementary membership again taking the lead. This may be explained by increased birth rates just prior to World War II, and partly due to an abnormal decline in high school membership caused by armed service enlistments and increasing war work opportunities. The facts and conditions would seem to indicate that this trend will probably continue for a few more years.

Beginning with the school census of 1944, census enumerators have listed separately all children from birth to the age of five years in accordance with legislation passed earlier in 1944. The purpose of this listing of pre-school children is to enable districts to plan ahead a few years for their elementary schools. The pre-school children so listed are not included on the official school census used for determining distribution of Primary School Aid.

Table VI records the census statistics for pre-school children listed by census enumerators for each of the years 1944, 1945, and 1946. Whereas some districts show a slight improvement in the number of pre-school children, the totals for the county have de-

TABLE VI

CENSUS OF CHILDREN UNDER 5 YEARS OF AGE IN  
IRON COUNTY, MICHIGAN, FROM 1944 TO 1946

DISTRICT*	YEAR	AGE GROUPS					TOTALS
		0	1	2	3	4	
BATES	1944	17	14	20	14	19	84
	1945	9	21	12	16	14	72
	1946	19	13	27	16	20	95
CRYSTAL FALLS	1944	73	66	60	69	64	332
	1945	44	84	75	65	62	330
	1946	46	57	49	76	67	295
HEMATITE	1944	11	8	13	6	14	52
	1945	14	13	11	17	8	63
	1946	11	16	13	13	18	70
IRON RIVER	1944	100	127	112	88	98	525
	1945	79	111	136	115	88	529
	1946	88	100	120	135	115	558
MANSFIELD	1944	3	6	5	3	3	20
	1945	1	6	5	4	2	18
	1946	2	2	5	5	4	18
MASTODON	1944	6	13	11	14	10	54
	1945	11	6	12	11	11	51
	1946	8	11	7	12	11	49
STAMBAUGH	1944	91	128	119	91	90	519
	1945	67	98	137	110	85	497
	1946	58	75	88	112	94	427
COUNTY TOTALS	1944	301	362	340	285	298	1586
	1945	225	339	388	338	270	1560
	1946	232	274	309	369	329	1513

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

Read the table as follows: In 1944, the number of children under 1 year of age was 17, the number over 1 year of age but under 2 years was 14. The total of all children under 5 years of age for the year 1944 in Bates Township was 84. Read the remainder of the table in like manner.



clined at about the same rate as has the general school census. The period of three years covered by Table VI probably do not provide sufficient data to justify many definite conclusions regarding the future membership of the elementary schools in Iron County. The limited facts presented, however, do not indicate that any serious school load problems can be expected within the next five years. If there are no changes in the number of children 4 years of age during the next two years, the 1st grade enrollment in all of the schools of the county will be one child less than the membership of the 1st grades at the end of 1946. The following year may show some increase, but, other things remaining equal, the Table shows that elementary enrollments will decline for at least three years following the school year 1948-49.

Iron County's school problems are obviously not those related to an expanding school population. There is no major and immediate building problem beyond that of ordinary maintenance. In fact, all districts have closed units as rapidly as possible during the past twenty years because of the decline in school population in outlying districts and because improved transportation equipment made such closing of buildings practicable. The one-room school has disappeared from Iron County except in Mansfield Township, which consists of just one building. Table VII reviews the history of such closing of grade buildings since 1926. From a high point of 64 buildings in operation in 1927



TABLE VII

NUMBER OF BUILDINGS OPERATED BY ALL IRON COUNTY, MICHIGAN, SCHOOL DISTRICTS FROM 1926 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY* TOTAL
1926	6	11	3	16	2	4	17	59
1927	5	11	3	22	2	4	17	64
1928	4	9	3	17	3	4	17	57
1929	4	7	1	15	3	2	17	49
1930	4	7	1	11	2	2	17	44
1931	4	7	1	11	2	2	13	40
1932	4	7	1	11	2	2	13	40
1933	4	4	1	11	2	2	12	36
1934	2	3	1	9	2	2	13	32
1935	2	3	1	9	2	2	13	32
1936	2	3	1	9	2	2	11	30
1937	2	3	1	9	2	2	11	30
1938	2	3	1	9	2	2	8	27
1939	2	3	1	9	2	2	8	27
1940	2	2	1	7	2	2	7	23
1941	1	2	1	5	1	1	7	18
1942	1	2	1	4	1	1	6	16
1943	1	2	1	4	1	1	6	16
1944	1	2	1	4	1	1	6	16
1945	1	2	1	4	1	1	6	16
1946	1	2	1	4	1	1	6	16

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

Read the table as follows: In 1926 Bates Township operated 6 separate school buildings and 59 were operated throughout Iron County. In 1946, 16 buildings, only one 1-room building, were operated. Read the remainder of the table in like manner.





TABLE VIII

INSTRUCTIONAL PERSONNEL AND TEACHER-PUPIL-RATIO, IRON COUNTY, MICHIGAN,  
SCHOOLS FROM 1933 TO 1946

SCHOOL DISTRICTS*														
BATES		CRYSTAL FALLS		HEMATITE		IRON RIVER		MANSFIELD		MASTODON		STAMBAUGH		
Year	Num- ber	Pupil- teacher Ratio	Num- ber	Pupil- teacher Ratio	Num- ber	Pupil- teacher Ratio	Num- ber	Pupil- teacher Ratio	Num- ber	Pupil- teacher Ratio	Num- ber	Pupil- teacher Ratio	Num- ber	Pupil- teacher Ratio
1933	14	27.6	57	21.5	17.8	18.7	69	26.2	2	14.5	16	22.3	73	25.9
1934	12	28.6	45.5	26.2	15	19.1	63	27.6	2	15.0	15	23.5	63	28.6
1935	13	27.8	41.5	26.1	15	17.9	62	27.6	1	30.0	15	21.0	63	28.0
1936	13	26.8	47	22.6	15	18.1	65	25.5	1	28.0	15	22.8	68	25.2
1937	15	22.7	45	23.4	14	17.2	63	25.7	1	28.0	13	24.4	66	24.7
1938	15	22.1	45	22.2	14	16.4	63	24.0	1	31.0	13	23.8	63	26.2
1939	14	21.5	42	23.8	12	17.2	62	24.6	1	28.0	14	21.0	57	27.8
1940	13	21.1	41	24.0	12	19.5	58	25.4	1	23.0	15	18.8	56	27.4
1941	13	20.0	40	24.1	12	19.7	55	25.0	1	27.0	14	19.0	54	26.3
1942	12	20.3	38	23.2	10	19.2	52	25.9	1	17.0	14	18.2	49	27.1
1943	12	19.1	38	21.8	9	18.5	50	25.0	1	14.0	14	15.6	44	29.5
1944	12	17.2	39.5	20.4	9	17.0	48	25.0	1	14.0	12	18.2	43	27.4
1945	11	18.2	35	21.8	8	19.3	46	24.9	1	9.0	11	20.1	44	26.2
1946	11	18.0	30.5	25.0	10	15.2	44	26.9	1	15.0	11	19.5	44	26.6

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

Read the table as follows: In 1933 there were 14 teachers including the superintendent at Bates Township school. The Pupil-Teacher Ratio was 27.6. By 1946 there were only eleven teachers including the superintendent in the same school with a Pupil-Teacher Ratio of only 18. Districts other than Bates are computed without counting the superintendent. The remainder of the table should be read in like manner.



faculty members as rapidly as conditions have permitted. In some cases staffs have been decreased even more drastically than the decline in total enrollments seemed to justify. Crystal Falls, Iron River, Mansfield, and Stambaugh had higher pupil-teacher ratios in 1946 than in 1933, although in no instance is the increase very pronounced. Bates, Hematite, and Mastodon have not decreased staffs as sharply as enrollments have dropped, but this fact can probably be accounted for by the size of their enrollments. The figures in the Table seem to indicate that the larger schools can make staff adjustments to declining enrollments more easily than can the smaller schools.

Table VIII, while attempting to show what has happened to the number of teachers employed as enrollments have declined, and what has, therefore, happened to pupil-teacher ratios, does not in any way attempt to depict the comparative teacher-loads from either an individual qualitative, or even quantitative, point of view. A quick survey of a questionnaire circulated through the schools of Iron County by the office of the County Commissioner of Schools in May, 1946 shows great variance between individual loads even within the same system.<sup>3</sup>

A comparison of the loads of an English teacher and a Commercial teacher within the same system reveals that the English

---

<sup>3</sup> E. Burr Sherwood, "The Teacher Load Problem in Iron County, Michigan Schools," (unpublished report of study made by the office of County School Commissioner, Crystal Falls, Michigan, May, 1946)



teacher is required to teach two English X classes of 39 pupils each, one English X class of 30 pupils, and one Speech class of 12 pupils, for a total academic load of 120 pupils. In addition, she was responsible for a Study Hall with 40 students and a Home Room with 35 students. The Commercial teacher's load was two Shorthand I classes of 12 and 11, respectively, a Shorthand II class of 7, and two Typing I classes of 21 and 22, respectively, or a total teaching load of 73 pupils. The Commercial teacher had no Home Room or Study Hall duties. The English teacher also sponsored a Thespian Club which produced several programs during the school year. The Commercial teacher, however, is an extremely conscientious worker and spends many hours on detailed corrective and remedial work with her students. Perhaps her load is the ideal one for good teaching and one which all schools should work toward. To achieve such a load factor, however, will require financial support much greater than that existing at present.

Similar differences in teacher load appear in many other instances within the county. It is not the task of this investigation to explore the teacher-load problem thoroughly. There are so many factors to be considered in such an analysis that no attempt will be made to consider them. An excellent study of the whole problem of teacher load is found in Langfitt's study on the Daily Schedule and High School Organization.<sup>4</sup>

---

<sup>4</sup> R. Emerson Langfitt, The Daily Schedule and High School Organization (New York: The Macmillan Company, 1938), Chapter V, pp. 99 - 119.

Since the per capita cost of instruction is the major item in school accounting, the school administrator is concerned very gravely with the pupil-teacher ratio, perhaps to an even greater extent than with the teacher-load. It must be observed, however, that careful analysis of teacher loads may make possible the elimination of one or more teachers, hence tending to increase the pupil-teacher ratio and thus reduce the per capita instructional costs within the system. Examination of the statistics for Crystal Falls in Table VIII, page 30, reveals that in 1945 there were 35 teaching positions in the system and that in 1946 there were only 30.5 teaching positions. Reorganization within the Crystal Falls schools raised the teacher-pupil ratio from 21.8 in 1945 to 25.0 in 1946.

In 1943 Mr. George Gilbert, Upper Peninsula Regional Supervisor for the Department of Public Instruction, surveyed the elementary grades of 52 schools and the secondary grades of 47 schools in the Upper Peninsula, including those of Iron County.<sup>5</sup> He discovered that the median pupil-teacher ratio for elementary grades was 30.5 and for secondary grades 22.4. Four elementary schools reported pupil-teacher ratios of less than 22 and five reported ratios in excess of 35. Six secondary schools reported more than 27 pupils and five reported less than 16. Per capita costs for high school pupils are higher under such conditions, even if there

---

<sup>5</sup> George Gilbert, "Pupil-Teacher Ratio and Gross Allowance Per Teacher from State Aid," (Mimeograph Pamphlet, Department of Public Instruction, Lansing, Michigan, 1943)

is no difference in salary schedules.

The facts brought out by Tables I through VIII clearly indicate that Iron County faces serious problems in adjusting its schools to its school population.

In summary these facts are: (1) total population has diminished in Iron County during the past twenty years, (2) school census has diminished much more rapidly than general population, thus reducing the school population potential, (3) school membership has diminished more rapidly than school census because of changing age distribution within the census rolls, (4) the ratio of elementary children to total membership is presently increasing after twenty or more years of decline, (5) meagre statistics show a diminishing number of pre-school children, giving no promise of increasing enrollment in the years ahead, and (6) school buildings and instructional personnel have been reduced in line with lost enrollment. How these facts affect the financial condition of the schools will be more thoroughly investigated in the following chapter.



## B. SCHOOL REVENUES

The quality of the educational program offered by any community to its youth is closely, if not directly, related to the amount of revenue available and collected by that community for the support of its schools. The following pages will be devoted to an analysis of the sources and amounts of revenue raised for the support of schools in Iron County, Michigan, during the past twenty years.

Records on file in the office of the County Commissioner of Schools form the basis for most of the statistical data recorded in the treatment. The methods of making reports to the Department of Public Instruction for the State of Michigan have improved greatly in the past few years. Certain statistics on school revenues for the years prior to 1933, however, are not as reliable as might be desired, not because of the inaccuracy of totals, but because of the lack of adequate breakdown in the reporting required. A careful attempt has been made, however, to interpret the statistics for the earlier years so that a true and comparative picture of the history of school revenues can be compiled.

For the purposes of this study school revenues will be divided into three classifications, namely, (1) taxes on local property, (2) major state aid, and (3) miscellaneous revenues. State aid will include Primary-Interest-Fund payments, Turner-Fund payments, State-Paid Tuition payments, and Rural-Agricultural payments.

-

-

-

-

-

-

-

Smith-Hughes aid, Swamp Tax, Land Sales, National Forest Sales, Commercial Forest taxes, Gasoline Tax refunds, etc., will be included under miscellaneous revenues. Some of the miscellaneous revenues are subventions from state or national government agencies and are often made in lieu of revenues lost by local government units because of state or national governmental legislation.

One might expect to find that each of the three classifications of school revenues has changed in relative importance with the passing years. Several of the tables immediately following will portray these changes. Revenue from taxes on local property have always been a major source of school income and is directly dependent upon two factors, namely, the local assessed valuation of the real and personal property of the district, and the rate of taxation levied against that property. A further factor, of course, is the rate of tax delinquency, which may affect the income of any given year to a considerable extent, although losses from delinquency are partially offset by subsequent delinquent tax collections, interest, and ultimate returns from Reverted Land Sales held periodically by the Auditor General's Department of the state government.

Tables IX and X show respectively a summary of the sources of revenue and the proportion from each source used by Iron County school districts.

TABLE IX

## SUMMARY OF AMOUNTS AND SOURCES OF REVENUE OF ALL IRON COUNTY SCHOOL DISTRICTS FROM 1927 TO 1946

YEAR	LOCAL TAXES	STATE AID	MISCELLANEOUS	TOTAL REVENUE*
1927	\$ 646,977.49	\$ 107,081.00**	\$ 27,363.76	\$ 781,422.25
1932	543,467.99	156,874.00	16,362.73	716,804.72
1933	348,920.39	128,186.00	10,650.06	487,756.45
1934	208,555.15	147,146.00	20,587.06	376,288.21
1935	216,637.40	198,945.00	8,853.60	424,436.00
1936	179,789.31	253,791.00	5,907.59	439,487.90
1937	208,907.06	260,842.00	10,977.82	480,726.88
1938	191,307.38	284,824.00	8,490.93	484,622.31
1939	192,689.09	241,084.00	25,762.75	459,535.84
1940	185,161.57	276,231.00	30,142.11	491,534.68
1941	184,333.99	265,560.00	18,111.00	468,004.99
1942	199,035.78	275,411.00	32,086.14	506,532.92
1943	201,161.79	252,922.00	39,264.64	493,348.43
1944	216,504.60	275,206.00	46,322.46	538,033.06
1945	248,685.39	252,811.00	33,170.62	534,667.01
1946	245,786.34	274,174.00	41,039.00	560,999.34

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

\*\*Rounded to nearest dollar.

Read the table as follows: Of the \$781,422.25 total revenue receipts (including monies collected for debt service), \$646,977.49 came from taxes on local property, \$107,081.00 came from the State of Michigan, and the balance, \$27,363.76, came from miscellaneous sources. Read the remainder of the table in like manner.

.....

.....

.....

.....

.....

TABLE I

PERCENTAGE OF LOCAL, STATE, AND MISCELLANEOUS SCHOOL REVENUES  
SUPPORTING IRON COUNTY SCHOOL DISTRICTS FROM 1927 TO 1946

YEAR	LOCAL CONTRIBUTION	STATE CONTRIBUTION	MISCELLANEOUS CONTRIBUTION	TOTAL REVENUES*
1927	82.8	13.7	3.5	100.0
1932	75.8	21.9	2.3	100.0
1933	71.5	26.3	2.2	100.0
1934	55.4	30.4	5.2	100.0
1935	51.0	46.6	2.4	100.0
1936	40.9	57.7	1.4	100.0
1937	43.4	54.3	2.3	100.0
1938	39.5	58.8	1.7	100.0
1939	41.9	52.5	5.6	100.0
1940	37.7	56.2	6.1	100.0
1941	39.4	56.7	3.9	100.0
1942	39.3	54.4	6.3	100.0
1943	40.8	51.3	7.9	100.0
1944	40.3	51.2	8.5	100.0
1945	46.5	47.3	6.2	100.0
1946	43.8	48.8	7.4	100.0

\*Source: Annual Reports filed in the office of the County Commissioner of Schools.

Read the table as follows: In 1927 the taxes on local property provided 82.8 per cent of the revenues for the operation of Iron County schools. The State of Michigan provided 13.7 per cent and miscellaneous sources provided the remainder of 3.5 per cent of the needed funds. The remainder of the table is read in like manner.

At one time, 1941, the revenue from local taxes received by Iron County schools had declined 71.5 per cent from the 1927 high figure. By 1946, local taxes increased about \$61,000 from the low point, for a recovery of 33.2 per cent. The \$245,786 received from local taxes in 1946, however, still represented a loss of over \$400,000 from 1927, or a decline of 62 per cent.

Drastic losses in local revenue have been partially offset by increases in state aid and miscellaneous revenues. The 1941 state aid of \$265,560 was two and one-half times the 1927 income from the state, which amounted to \$107,081. Miscellaneous revenues for 1941, however, were a third less than in 1927. By 1946, state aid had increased only slightly to \$274,174, and miscellaneous income had increased rather sharply to \$41,039.

Total revenues reached the lowest point in 1934, at which time they had declined \$405,134 from 1927 for a percentage loss of 51.8 per cent. Total revenues had increased markedly by 1946 to \$560,999, but they were still \$220,423, or 28.2 per cent, under 1927.

In summary, Table IX indicates that local taxes, while increasing in recent years, are greatly below the lush days prior to the Great Depression. It also shows plainly that state aid has not made up the difference, in spite of having increased nearly three times. The table shows, also, that miscellaneous income varies sharply from year to year, but in general is becoming increasingly important as a source of revenue.

Table X translates the absolute statistics of Table IX into relative terms. It is clear that local contributions constitute a much smaller proportion of total income than in 1927, or than in 1933, the last year prior to the adoption of the Fifteen Mill Tax Limitation Act. The table also makes clear that local effort has not declined as state aid has increased. Further reference to local effort will be made in later tables in connection with an examination of comparative tax rates.

For purposes of comparison it should be pointed out that total state aid for all Michigan schools increased from \$16,422,553 in 1927<sup>6</sup> to \$60,000,000 in 1946, or 265 per cent. For the same period, state aid distributed to Iron County schools increased from \$107,081 to \$274,174 (see Table IX, page 37), or only 147 per cent. This discrepancy is due to the drastic decline in school population within Iron County. State aid is based upon actual school membership.

As pointed out, local tax revenues are directly dependent upon the assessed valuation of the property of a governmental unit. The assessed valuation of real and personal property and the percentage changes in property valuations in Iron County school districts from 1925 to 1946 are shown in Tables XI and XII.

---

<sup>6</sup> Ninety-Sixth Report of the Superintendent of Public Instruction, 1942 (Published by Eugene B. Elliott, Superintendent of Public Instruction, Lansing, Michigan,) Table 27, page 86.



TABLE XI

## ASSESSED VALUATION OF ALL IRON COUNTY SCHOOL DISTRICTS FROM 1925 TO 1946

YEAR	BATES	CRYSTAL		HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
		FALLS	SPRING						
1925	4,190,595	8,463,009		1,429,065	13,245,260	425,730	2,091,225	13,159,775	43,004,659
1926	3,560,205	7,469,006		1,603,345	13,245,260	425,730	2,072,950	12,611,757	40,988,073
1927	3,587,350	7,469,551		1,398,085	13,175,400	426,518	1,930,240	12,301,102	40,288,246
1928	3,472,748	6,722,889		1,388,085	13,059,469	426,516	1,930,240	11,855,092	38,855,039
1929	3,324,848	6,424,755		1,376,885	13,125,000	371,980	2,117,885	11,315,283	38,055,836
1930	3,273,788	6,335,951		1,455,047	11,952,742	352,604	2,117,885	11,243,830	36,731,847
1931	3,227,155	6,247,433		1,285,800	11,756,630	352,604	2,155,825	11,092,836	36,118,283
1932	2,830,690	5,150,832		1,093,110	10,072,975	214,390	1,806,760	8,998,085	30,166,842
1933	2,530,480	4,246,835		1,042,135	8,385,685	214,390	1,534,971	7,769,140	25,723,636
1934	2,436,830	3,959,125		1,014,445	8,353,320	212,202	1,554,126	7,608,580	25,138,628
1935	2,121,255	3,364,760		698,755	8,042,749	206,891	1,359,521	7,573,470	23,367,401
1936	2,036,900	3,211,930		662,315	7,590,139	204,961	1,240,436	7,034,103	21,980,784
1937	2,099,850	3,195,515		619,165	7,391,269	205,171	1,212,351	6,770,120	21,493,441
1938	2,206,175	2,914,900		581,320	7,550,869	211,495	1,207,496	6,649,415	21,321,670
1939	2,093,925	2,874,025		578,215	7,687,124	209,370	1,223,611	6,759,560	21,425,830
1940	1,888,425	2,743,110		458,235	7,574,770	204,420	1,100,190	6,543,465	20,512,615
1941	1,736,825	2,658,340		393,945	7,834,490	264,220	1,075,295	6,558,630	20,521,745
1942	1,680,775	2,843,620		385,110	8,277,090	271,515	1,252,950	6,616,960	21,328,020
1943	1,658,625	2,883,755		382,070	8,517,290	269,230	1,710,860	6,026,190	21,448,020
1944	1,638,850	2,940,555		367,800	8,611,170	269,330	1,877,950	6,002,760	21,703,415
1945	1,558,875	3,030,915		374,450	8,612,195	266,470	1,947,735	5,606,415	21,397,055
1946	1,522,900	3,016,795		369,455	8,156,585	268,370	2,040,155	5,560,645	20,934,895

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

Read the table as follows: In 1925, the assessed and county equalized valuation of Bates Township School District was \$4,190,595. The valuation of the same district in 1946 was \$1,522,900. Read the remainder of the table in like manner for the other school districts.

the first of these is the fact that the  
the second is the fact that the

the third is the fact that the

the fourth is the fact that the

the fifth is the fact that the

the sixth is the fact that the

the seventh is the fact that the

the eighth is the fact that the

the ninth is the fact that the

the tenth is the fact that the

the eleventh is the fact that the

the twelfth is the fact that the

the thirteenth is the fact that the

the fourteenth is the fact that the

the fifteenth is the fact that the

the sixteenth is the fact that the

the seventeenth is the fact that the

the eighteenth is the fact that the

TABLE XII

PERCENTAGE CHANGES IN PROPERTY VALUATIONS IN ALL IRON COUNTY  
SCHOOL DISTRICTS FROM 1925 TO 1946

DISTRICT	HIGHEST ASSESSED VALUATION*	1946 ASSESSED VALUATION	PER CENT DECLINE
BATES	\$ 4,190,595 <sup>1</sup>	\$ 1,522,900	63.7
CRYSTAL FALLS	8,463,009 <sup>1</sup>	3,016,795	64.4
HEMATITE	1,603,345 <sup>2</sup>	369,455	76.9
IRON RIVER	13,245,260 <sup>1</sup>	8,156,585	38.4
MANSFIELD	426,518 <sup>3</sup>	268,370	37.1
MASTODON	2,155,825 <sup>4</sup>	2,040,155	5.3
STAMBAUGH	13,159,775 <sup>1</sup>	5,560,645	57.7
COUNTY TOTAL	43,004,659 <sup>1</sup>	20,934,895	51.3

<sup>1</sup>Highest valuation in 1925  
<sup>2</sup>Highest valuation in 1926  
<sup>3</sup>Highest valuation in 1927  
<sup>4</sup>Highest valuation in 1931

\*Source: Annual reports filed in the office of the County Commissioner of Schools and records of the Iron County Tax Allocation Board.

Read the table as follows: The valuation of Bates Township District as assessed by the Township Supervisor, and as equalized by the County Board of Supervisors, declined from a high point of \$4,190,595 in 1925 to \$1,522,900 in 1946, representing a decline of 63.7 per cent. The remainder of the table should be read in like manner.



An examination of Table XI provides at least a partial explanation of the drastic decline in school revenues from local taxes already shown. It is seen that a severe decline in property valuations had set in even prior to the Depression and prior to the adoption of the Fifteen Mill Tax Limitation Act voted by a tax-weary public in 1932. Even then valuations had declined over \$17,250,000, or 42.5 per cent, from 1925. The decline continued until 1940 at which time the tax base was only 47.7 per cent of the 1925 figure. A slight increase was experienced for five years, followed by losses for the years 1945 and 1946.

Until 1933 losses in valuation could be recovered by an upward revision of the tax rate merely upon resolution of the Board of Education. The Tax Limitation Act, however, placed a ceiling on taxes and removed the right to determine tax rates from local governmental units, thus tying their hands almost completely.

The majority of the assessed valuation of Iron County is represented by the value of the iron mines. The valuation given to the mines is recommended to the local assessor by the State Tax Commission on the basis of an extremely complicated formula which makes allowance for depreciated mineral reserves and for the profit factor. Mining companies have insisted that industrial conditions have reduced the profit factor to a very low point and the heavy demand for iron ore caused by the War has depleted reserves drastically. A committee of legislators headed by Mr. Carl Lindquist, representative from the Iron-Baraga District,



held a public hearing on June 27, 1946 to consider the problem of devising legislation that would encourage mining companies to explore for ore without penalizing them too severely for any new reserves uncovered. The problem is outside the province of this study but the manner in which it is ultimately solved will, in all probability, have lasting effects upon the tax base supporting the schools and other governmental functions.

It will be noted from further examination of Table XI and Table XII that some of the districts show decided differences in the amounts and in the rate of decline in valuation of taxable property. Hematite has lost 76.9 per cent, or more than three-fourths, of its tax base within the twenty-year period covered by this study; whereas Mastodon Township, which had lost nearly 50 per cent of its valuation by 1941, has experienced a splendid recovery to within 5.3 per cent of its peak valuation. This reversal of trend is only partly due to mining conditions. One new mine has been developed in the Township of Mastodon during the past five years, but the most of the increased valuation is due to the development of hydro-electric power facilities. There is promise of further increase in valuation in Mastodon from this source. The lack of uniformity in valuation losses has led to great inequalities in the tax base supporting each school child among the seven school districts of the county. This factor will be examined more thoroughly in later pages.

The policies practiced in the assessment of non-mining prop-

TABLE XIII

PERCENTAGE OF TAXES PAID BY MINING COMPANIES AND ALL OTHER SOURCES  
TO ALL IRON COUNTY SCHOOL DISTRICTS FROM 1928 TO 1945

YEAR	PER CENT PAID BY MINING COMPANIES	PER CENT PAID BY ALL OTHERS*
1928	63.20	36.80
1929	63.71	36.29
1930	68.01	31.99
1931	67.66	33.34
1932	59.57	40.43
1933	67.14	32.86
1934	68.73	31.27
1935	67.62	32.38
1936	67.77	32.23
1937	68.15	31.85
1938	67.32	32.68
1939	66.16	33.84
1940	67.40	32.60
1941	72.77	27.23
1942	73.69	26.31
1943	72.75	27.25
1944	71.96	28.04
1945	71.67	28.33

\*Source: Special statistics supplied by the Iron County Taxpayers' Association.

Read the table as follows: In 1928 the actual taxes paid by the mining companies holding property within the county were 63.20 per cent of the total while all other property holders paid 36.80 per cent of the total. Read the remainder of the table in like manner for other years.





erties affect governmental income. Table XIII presents interesting statistics concerning these policies.

It is clear that the taxes paid by the mining companies are the most important single source of local income in spite of the drastic decline in the valuations placed upon the mines. It should be pointed out that the percentage figures in Table XIII are not exactly the same as the ratio that exists between mining and non-mining valuations because a larger proportion of the delinquent tax each year is found in the non-corporate area. This fact tends to raise the percentage figures in column one and lowers them in column two.

The heaviest losses in assessed valuations occurred between the years 1930 and 1936 (see Table XI, page 41), during which time approximately fifteen millions of dollars in valuation was lost as a tax base. The proportion of taxes paid by mining companies declined only .24 of one per cent during that period, however. Thus it would appear that the assessment of non-mining property declined in value at almost the same rate as the decline of mining values. Local Boards of Review made it a practice arbitrarily to cut non-corporate valuations in about the same proportion as mining valuations were lowered. The purpose of this practice was to maintain the same relative tax burden between corporate and non-corporate taxpayers.

It is questionable whether school men were aware of this practice, but even so, there was probably little that they could

do to prevent it. As a result of the policy pursued by Boards of Review, an attitude has developed towards the valuation of individually-owned property that makes it very difficult to assess such property at any amount near its real value. In one school district there is no privately owned real estate assessed for more than \$150, according to a quick survey made by the writer. In this particular district there are farms with all modern equipment that produce fine crops and are easily worth many thousands of dollars each. Another known instance in another district shows a resort property recently sold for over \$13,000 which is carried on the tax rolls for \$1,500. Most privately owned property is undoubtedly more valuable today than it was ten or fifteen years ago, yet no attempt has been made to evaluate it for tax purposes in line with increased values. Perhaps any attempt by tax assessors to raise values materially would lead to political repercussions that elected officials do not care to face.

Absolute valuations have declined drastically in Iron County as proved by the preceding analysis. It has also been shown that school population has declined sharply during the period under study. Table XIV shows the relationship existing between the losses in both property valuation and school membership by tabulating the per capita assessed valuation for each child in membership at the close of the year indicated on the table for each district.

TABLE XIV

## ASSESSED VALUATION PER CAPITA SCHOOL MEMBERSHIP FOR ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY* TOTAL
1926	\$12,660	\$4,872	\$3,646	\$7,148	\$9,255	\$4,753	\$6,467	\$6,302
1927	10,755	4,565	4,542	7,294	8,515	5,355	6,344	6,230
1928	11,106	4,704	3,669	7,299	9,522	5,133	6,298	6,221
1929	9,593	4,558	3,711	6,909	8,530	5,001	6,076	5,852
1930	8,819	4,573	4,024	6,656	10,628	5,430	5,472	5,867
1931	8,548	4,692	4,205	5,911	10,371	5,618	5,533	5,613
1932	8,275	4,798	3,474	5,893	10,371	5,711	5,569	5,609
1933	7,314	4,192	3,283	5,562	7,393	5,022	4,766	4,809
1934	7,377	3,557	3,631	4,825	7,146	4,361	4,311	4,453
1935	6,731	3,649	3,785	4,882	7,073	4,934	4,311	4,541
1936	6,095	3,171	2,578	4,854	7,388	3,975	4,414	4,309
1937	5,991	3,050	2,748	4,697	7,320	3,913	4,318	4,207
1938	6,344	3,196	2,692	4,895	6,619	3,923	4,103	4,247
1939	7,329	2,921	2,822	4,955	7,554	4,109	4,195	4,319
1940	7,642	2,921	2,445	5,253	9,103	4,338	4,406	4,483
1941	7,263	2,843	1,942	5,501	7,571	4,136	4,605	4,506
1942	7,147	3,017	2,052	5,821	15,542	4,217	4,946	4,818
1943	7,340	3,426	2,306	6,616	19,394	5,721	5,090	5,342
1944	8,052	3,582	2,497	7,036	19,231	7,848	5,115	5,680
1945	8,194	3,854	2,388	7,514	29,926	8,498	5,206	5,953
1946	7,873	4,181	2,463	7,280	19,034	9,144	4,796	5,772

\*Source: Annual reports filed in the office of the County Commissioner of Schools.

Read the table as follows: In June, 1926 the valuation back of each child in membership in Bates Township was \$12,660 and taxes had been levied and collected on this valuation during the year just closing. Read the remainder of the table in like manner.

1. The first part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

2. The second part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

3. The third part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

6. The sixth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

7. The seventh part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

8. The eighth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

9. The ninth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

10. The tenth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

In four of the seven school districts of Iron County, namely, Bates, Crystal Falls, Hematite, and Stambaugh, valuations have declined more rapidly than has their school population. The most serious discrepancy appears in Bates Township which declined from a per capita tax base of \$12,660 in 1926 to \$7,873 in 1946, a loss of 37.8 per cent. Mansfield Township experienced the sharpest gain, 106 per cent, but enrollment is so small in this district that a slight change in membership causes a considerable variation in per capita wealth. Mastodon nearly doubled its per capita wealth, gaining 92.3 per cent. Iron River suffered per capita losses for several years during the Depression but the losses have been regained. Stambaugh, the system most closely parallel to Iron River in all respects, ended the period under study with a per capita loss of 25.8 per cent, a fact not generally appreciated by persons making comparisons between the finances of the two neighboring school districts.

In general, much sharper variations appear in the tax base supporting each child among the various districts than appears for the county as a whole. This has caused some districts to be relatively rich and others to be relatively poor. Generally, valuations have declined more rapidly than has school population. With declining tax rates due to the Fifteen Mill Tax Limitation Amendment revenues back of each child have varied sharply, usually downward.

Table XIV will reveal more significant facts if studied with

TABLE XV

TAX RATES LEVIED FOR OPERATION OF ALL IRON COUNTY SCHOOL DISTRICTS FROM 1926 TO 1946  
(IN DOLLARS PER THOUSAND DOLLARS OF ASSESSED VALUATION)

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH*
1926	9.60	**	30.32	14.14	26.84	19.14	11.73
1927	11.43	**	27.30	12.76	26.85	17.33	13.26
1928	10.85	**	29.48	12.53	26.79	16.89	13.20
1929	10.62	**	31.95	12.08	29.90	13.41	13.08
1930	12.89	**	33.78	11.32	37.40	16.64	13.76
1931	13.14	**	31.32	12.31	31.31	15.76	13.81
1932	14.69	**	27.98	11.56	19.85	16.03	14.28
1933	13.36	18.07	31.88	9.36	32.65	16.25	13.17
1934	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1935	5.20	5.20	5.20	6.20	5.20	5.20	5.20
1936	5.80	5.20	5.10	5.00	10.00	5.20	4.90
1937	9.60	5.90	5.90	5.90	23.00	11.40	5.90
1938	9.50	5.50	5.50	5.90	27.00	11.50	5.50
1939	9.50	5.50	5.50	5.50	28.00	11.30	5.50
1940	9.50	5.50	5.50	5.50	23.30	11.30	5.50
1941	9.50	7.50	5.50	5.50	23.30	11.70	5.50
1942	9.50	7.50	5.50	5.50	00.00	12.00	5.50
1943	9.50	7.50	5.50	5.50	4.00	13.00	8.50
1944	11.00	12.50	5.50	5.50	4.00	12.50	8.50
1945	12.00	13.50	6.50	6.50	26.50	13.50	9.50
1946	12.00	13.50	6.50	6.50	18.50	13.50	9.50

\*Source: Annual reports filed in the office of the Commissioner of Schools.

\*\*Accurate statistics not available.

Read the table as follows: In 1926 taxpayers of Bates Township paid \$9.60 in school taxes (for operation) for each one thousand dollars of assessed valuation, Hematite paid \$30.32 and Stambaugh paid \$11.73. Read the remainder of the table in like manner for other years and other districts.

Table XV which shows the tax rate in dollars per thousand dollars of assessed valuation for each school district for corresponding years.

Attention is called to several facts necessary to properly understand Table XV. No figures are given for Crystal Falls until 1933 because reports were not filed in the office of the County Commissioner of Schools prior to that date since the district was until then organized as a special charter district and was not required to file annual reports with the Commissioner. In 1942 the County Tax Allocation Board refused to grant any millage to Mansfield because the balance in the school treasury was greater than the amount of the budget for the ensuing year as submitted to the Allocation Board. Under the Tax Limitation Act no millage in excess of budgetary needs can be allocated by the Board. For the following two years the Mansfield budget required only the statutory minimum of 4 mills. Bates Township Schools have voted millage outside the limitation continually since 1937. Crystal Falls did likewise from 1941 onward. Mansfield, Mastodon, and Stambaugh electors authorized additional millage in 1936, 1937, and 1943, respectively. Only Hematite and Iron River have failed to remove the tax limitation.

It will be noted that tax rates up to 1933 are given in irregular figures. This reflects the condition prior to that date when raising funds for school operation involved merely the dividing of the budget total by the assessed valuation and certifying



that figure to the township, city, and/or village treasurers who spread that rate upon the roll. Usually a flat ten per cent was added to the regular budget to care for contingencies. Beginning with the school year ending June, 1934, however, districts were required to submit their budgets to the County Tax Allocation Board which examined them together with the budgets of all other governmental units affected by the Tax Limitation Act and then allocated to them as large a share of the fifteen mills under their jurisdiction as the facts seemed to merit, or as the pressure seemed to require. To protect against undue pressure the law provides that a minimum of 4 mills be allocated to the schools against 3 mills for county government and 1 mill for township government. Each year a struggle takes place between county interests and school interests over the division of the millage to be allocated. In 1944 the schools were successful in their plea to have the share allocated to them under the limitation increased from 5.50 mills to 6.50 mills for the year ending June, 1945. The same millage allocation was made for the following two years, although the current allocation is not reflected in Table XV. The plain facts are that enough dollars, or mills, are not available to satisfy the legitimate needs of all units.

To show the effect of the Tax Limitation Act operating upon declining property valuations amongst the various school districts of Iron County Table XVI is introduced at this point.

TABLE XVI

## AMOUNTS OF LOCAL TAX LEVIES FOR OPERATION OF ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	RATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	TOTAL COUNTY*
1926	\$40,230	\$	\$43,330	\$187,328	\$11,000	\$40,000	\$154,332	\$
1927	41,708	**	43,756	169,000	11,000	35,917	167,559	
1928	38,935	**	41,218	165,063	11,000	32,550	162,090	
1929	36,900	**	44,664	157,815	12,000	25,875	155,094	
1930	42,850	**	46,482	148,587	13,356	35,244	155,668	
1931	43,014	**	45,546	147,175	9,000	33,365	155,180	
1932	47,401	**	35,983	135,888	7,000	34,571	158,393	
1933	37,831	93,083	34,844	94,300	7,000	29,364	118,536	380,113
1934	12,652	21,234	5,211	41,928	1,072	7,675	38,846	128,618
1935	12,671	20,587	5,275	51,791	1,103	8,081	39,565	139,073
1936	12,303	17,497	3,564	41,007	2,069	7,070	36,814	120,324
1937	19,554	18,950	3,908	44,782	4,714	14,141	41,501	147,550
1938	19,949	17,877	3,405	43,608	5,540	13,942	37,236	141,557
1939	20,959	16,032	3,197	41,530	5,922	14,128	36,572	138,340
1940	19,892	15,699	3,180	42,279	4,931	13,827	37,178	136,986
1941	17,940	20,573	2,547	41,661	5,111	12,973	35,989	136,543
1942	16,500	19,938	2,167	43,090	00000	12,722	55,748	150,416
1943	15,967	21,327	2,118	45,524	1,086	16,288	56,244	158,554
1944	18,245	36,047	2,101	46,845	1,077	21,386	51,223	176,924
1945	19,606	39,698	2,391	55,973	7,137	25,352	57,026	207,183
1946	21,765	40,917	2,434	55,989	4,930	26,294	51,458	203,987

\*Source: Annual reports filed in the office of the Commissioner of Schools.

\*\*Accurate statistics not available.

Read the table as follows: In 1926 the total taxes levied (not collected) for Bates Township was \$40,230. The total taxes levied (not collected) for Hematite Township for the same year was \$43,330. Read the remainder of the Table in like manner.

Accurate totals for the county as a whole are not given because accurate statistics for Crystal Falls are not available. An examination of the original records reveals that no breakdown between debt service and general operation income was kept by Crystal Falls prior to 1933. As already noted, Mansfield was not permitted to levy any taxes for year 1942 because of an excessive cash balance. The most drastic decline in tax levies on local property occurred in Hematite Township which raised only \$2,434 in 1946, or a mere 5.6 per cent of the \$43,330 raised twenty years earlier. A review of Table XI, page 41 and Table XV, page 50 provides the basic data explaining the astounding loss of local revenue suffered by Hematite. Clearly, local property has not been burdened by the support of schools since the adopting of the Fifteen Mill Tax Limitation Act.

A final phase of the local tax problem is the debt status of the schools of the county. It is indeed fortunate, as pointed out in the introduction, that the physical plant for the schools of the county was built largely prior to 1925 when valuations were high and no state limitation was placed upon tax rates. The construction of a \$300,000 high school in Iron River in 1928-29 was the last major building operation in Iron County. At the close of school in June, 1946 only two school districts, namely, Hematite and Iron River, still carried any bonded indebtedness. Iron River still owed two annual installments of \$15,000 each and Hematite still had outstanding bonds amounting to \$15,000. In Table XVII may be seen the amounts raised to pay interest and bonds from 1926 through 1946.

TABLE XVII

AMOUNTS PAID FROM LOCAL TAX LEVIES FOR SERVICING DEBT ACQUIRED PRIOR TO 1933  
BY ALL IRON COUNTY SCHOOL DISTRICTS FROM 1926 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1926	\$10,459	\$16,000**	\$16,670	\$ 6,673		\$ 7,933	\$23,325	\$81,060
1927	7,292	15,500**	16,245	30		6,083	21,618	66,768
1928	7,065	15,000**	15,787	12,063		5,400	20,581	75,896
1929	9,100	9,500**	15,336	29,250		12,125	19,768	95,079
1930	8,260	47,000**	14,889	28,538		2,757	14,061	115,505
1931	8,650	7,000**	14,454	27,825		6,752	13,475	78,156
1932	7,870	7,000**	14,017	27,113		5,585	8,000	69,585
1933		6,917	10,754	5,700		5,449	7,438	36,258
1934		2,586	3,053	31,744		19,118	7,859	64,360
1935		6,502	17,680	43,465		750	5,209	73,606
1936		11,862	9,380	24,263		4,425		49,930
1937		6,028	9,080	23,550		4,275		42,933
1938		5,803	8,780	22,838		7,650		45,071
1939		417	8,480	22,125		3,900		34,922
1940		1,236	3,180	21,413		3,750		29,579
1941			6,024	20,700		3,750		30,474
1942		2,520	6,827	19,988		3,300		32,635
1943			12,651	19,275				31,926
1944			3,620	18,563		3,150		25,333
1945		2,075	22,257	17,850				42,182
1946			675	17,138				17,808

\*Source: Annual reports filed in the office of the Commissioner of Schools.

\*\*Approximate

Read the table as follows: In 1926 Bates paid \$10,459 for principal and interest on bonded debt and Crystal Falls paid approximately \$16,000 for the same purposes. Blank space indicates that bonds have been retired. Read the remainder of the table in like manner.

1. The first part of the document is a list of the names of the persons who were present at the meeting.

2. The second part of the document is a list of the names of the persons who were present at the meeting.

3. The third part of the document is a list of the names of the persons who were present at the meeting.

4. The fourth part of the document is a list of the names of the persons who were present at the meeting.

5. The fifth part of the document is a list of the names of the persons who were present at the meeting.

6. The sixth part of the document is a list of the names of the persons who were present at the meeting.

7. The seventh part of the document is a list of the names of the persons who were present at the meeting.

During the twenty years covered by this study all bonded debt for Iron County schools has been retired with the exceptions noted for Iron River and Hematite. Iron River has practically paid for its beautiful new high school during this period. Mansfield has had no bonded debt during the period. During 1933 and 1934 large amounts of school money were frozen in closed banks. Some districts found it necessary to default on the payment of principal for a time. Iron River used general fund money to resume payments in 1934 and 1935, thus producing a deficit in their debt service funds which they are replacing currently from excess debt service collections each year. Hematite refinanced its bonded debt in 1941 at a lower rate of interest. For the past three years Hematite has levied 35 mills for debt service and now has sufficient funds to meet all bond obligations as they become due. They have purchased at a slight premium, but at a considerable total savings in interest, many bonds being dated as due in the decade 1950 to 1960.

It is clear that bonded indebtedness is not a burden upon local taxpayers in Iron County. This factor should make it more easy to vote additional millage for operation. All districts except Iron River and Hematite now do so, and both of them plan to do so as soon as their debt has been retired, or before, if necessary. The absence of debt might also be a factor in smoothing the way for ultimate reorganization of school districts within the county.

Beginning as early as the passage of the Turner Bill for state aid to poorer school districts the idea of the need for some method of equalizing the financial burden of free public education has been gaining strength. Following the adoption of the Fifteen Mill Tax Limitation Amendment state aid to local school districts has steadily increased. Since 1933 there has been a struggle between those wealthy and populous districts who desired to have state aid distributed according to the number of children on the school census, and the sometimes labelled "equalization" group who desired distribution of state aid funds according to the number of children actually in school. Iron County districts, having no parochial schools and with a high ratio of school attendance to school census, have supported the "equalization" group. The equalization idea finally won out and all state aid now, practically speaking, is used to provide an equalization fund.

To determine the amount of school aid a district will receive under existing legislation the number of children in the elementary grades is multiplied by the gross allowance for each child and the product is added to the amount obtained by multiplying the number of secondary children by the gross allowance for each child. To this total is added transportation allowances, state paid tuition, and sometimes assistance grants of \$500 each for outlying schools. The total of all these items is called the Gross Allowance due a district. From the Gross Allowance will be subtracted the Primary

Interest Fund money which is distributed annually in September and December and an amount equal (under the present law) to not less than 2.25 mills on each dollar of State Equalized valuation. Because State Equalized valuation is so used in determining net receipts under state aid allowances, it is important to determine the relationship existing between State Equalized valuations and County Equalized valuations. Local taxes are levied on the County Equalized valuations, but if the County Equalization figure is less than the State Equalization figure, the schools are penalized. Table XVIII shows the relationship existing between State and County Equalized valuations from 1938 through 1945.



TABLE XVIII

COUNTY EQUALIZED VALUATIONS VERSUS STATE EQUALIZED VALUATIONS  
FOR SCHOOLS IN IRON COUNTY FROM 1938 TO 1944

YEAR	COUNTY EQUALIZED VALUATION	STATE EQUALIZED VALUATION	RATIO OF COUNTY TO STATE*
1938	\$21,321,670	\$20,856,000	102.2 per cent
1939	21,425,830	20,656,000	103.7 per cent
1940	20,512,615	20,156,000	101.8 per cent
1941	20,521,745	20,500,000	100.1 per cent
1942	21,328,020	21,600,000	98.8 per cent
1943	21,448,020	23,000,000	93.3 per cent
1944	21,703,415	26,000,000	85.8 per cent
1945	21,397,055	24,300,000	88.1 per cent

\*Source: Annual reports of the Michigan State Tax Commission.

Read the table as follows: In 1938 the County Equalized valuation of all the real and personal property within the county was declared to be \$21,321,670, which was 102.2 per cent of the valuation determined by the State Board of Equalization or \$20,856,000. Read the remainder of the table in like manner.

It will be observed that until 1941 the State Board of Equalization accepted rather generously the equalized values set by the Iron County Board of Supervisors. After that date, however, the Tax Commission recommended to the State Board of Equalization that the State Equalized values be raised in relation to the County Equalized values. The writer personally objected to the \$26,000,000 figure set by the State Board of Equalization for 1944 on the grounds that proper consideration was not given to the proportion of Iron County property held by corporations upon which the State Tax Commission had set the assessed values. The error was discovered during the following year and is reflected in the decline to \$24,300,000 set for the year 1945.

If school people could induce the County Board of Supervisors to re-examine assessment rolls with a view to bringing County Equalized valuations more closely in line with State Equalized valuations, much additional income could be derived from local taxation. Much more could be written concerning the ramifications of the problem of property equalization, but it is not necessary to an understanding of the relationship between such values and state assistance to schools.

It has been repeatedly pointed out that local revenue received by school districts in Iron County declined drastically following 1933 due to the sharp decline in assessed valuations and lowered rates imposed by the Fifteen Mill Amendment. To what extent these losses have been recovered through increased state aid



TABLE XIX

AMOUNT OF PRIMARY INTEREST FUND MONEY PAID TO ALL IRON COUNTY SCHOOL DISTRICTS FROM 1926 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	TOTAL COUNTY*
1926	\$5,754	\$30,688	\$5,781	\$28,989	\$1,068	\$6,672	\$31,113	\$110,065
1927	5,486	28,223	5,671	28,249	1,087	6,201	29,445	104,362
1928	5,320	26,445	5,448	27,974	1,118	5,770	29,080	101,155
1929	7,323	34,078	6,746	36,470	1,421	7,687	39,351	133,076
1930	6,892	38,789	6,499	34,448	1,193	7,175	40,094	135,090
1931	8,189	37,881	7,347	40,123	1,308	7,724	46,492	149,064
1932	8,461	34,332	7,027	40,391	1,309	7,823	44,905	144,248
1933	7,661	25,223	5,965	34,428	00000	6,631	38,138	118,046
1934	6,411	19,751	4,906	27,739	956	5,674	31,136	96,573
1935	5,444	15,792	3,820	22,475	822	4,482	25,151	78,386
1936	5,799	16,450	3,829	23,885	857	4,975	26,256	82,051
1937	5,709	15,807	3,597	23,056	803	4,631	24,981	78,584
1938	5,672	15,832	3,622	23,668	775	4,920	25,366	79,855
1939	7,875	21,701	4,566	31,900	1,082	6,619	33,968	107,711
1940	5,197	14,784	2,990	21,930	717	4,480	23,968	74,066
1941	5,262	14,099	3,129	22,233	529	4,348	23,534	73,134
1942	5,633	15,953	3,243	24,015	775	4,661	24,986	79,266
1943	4,932	14,441	2,820	21,699	746	4,122	23,039	71,799
1944	5,046	15,463	2,747	23,460	694	4,270	23,501	75,181
1945	5,402	15,229	3,266	26,034	641	4,349	25,911	80,832
1946	4,425	12,854	2,600	21,008	630	3,624	21,468	66,609

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926 Bates Township Schools received \$5,754 from the State of Michigan as its share of the Primary School Interest Fund established by constitutional provision and statute law. Crystal Falls received \$30,688, Hematite received \$5,781 during the same year. Read the remainder of the table in like manner for other districts and years.

TABLE XX

STATE AID OTHER THAN PRIMARY MONEY RECEIVED BY ALL IRON COUNTY SCHOOL DISTRICTS FROM 1926 TO 1946

YEAR	CRYSTAL FALLS			HEMATITE			IRON RIVER			MANSFIELD			MASTODON			STAMBAUGH			COUNTY TOTAL*	
	BATES	FALLS	**	\$	**	\$	000	\$	000	\$	000	\$	000	\$	200	\$	000	\$	1,400	
1926	\$ 000		**	\$		\$	000		000		000		000		200		000		1,400	
1927	000		**			200	000		000		200		200		200		000		1,400	
1928	200		**			200	000		000		000		000		200		000		1,600	
1929	000		**			000	000		000		000		000		200		000		1,600	
1930	000		**			000	1,200		000		31		000		000		000		1,600	
1931	000		**			2,602	2,091		400		400		2,918		2,918		4,153		4,153	
1932	000		**			3,105	2,388		200		200		2,200		2,200		3,732		3,732	
1933	000	1,179				2,638	1,289		000		000		2,815		2,815		2,219		2,219	
1934	6,980	4,321				3,612	21,842		76		76		990		990		12,752		12,752	10,140
1935	6,916	30,862				5,732	29,963		328		328		11,407		11,407		35,351		35,351	50,573
1936	7,326	34,502				15,328	49,274		475		475		14,557		14,557		50,278		50,278	120,559
1937	11,062	34,643				14,978	53,543		1,945		1,945		12,223		12,223		53,864		53,864	171,740
1938	12,790	37,931				10,035	59,220		800		800		14,342		14,342		69,851		69,851	182,258
1939	8,914	24,912				7,343	41,730		1,070		1,070		11,288		11,288		38,116		38,116	204,969
1940	10,714	41,294				10,144	60,662		1,262		1,262		13,704		13,704		64,385		64,385	133,373
1941	10,585	45,232				10,547	56,943		310		310		12,487		12,487		56,322		56,322	202,165
1942	10,452	44,223				13,411	55,203		000		000		14,231		14,231		58,625		58,625	192,426
1943	9,450	42,462				11,537	52,852		000		000		13,096		13,096		51,726		51,726	196,145
1944	11,510	42,751				9,669	56,700		000		000		13,098		13,098		66,297		66,297	181,123
1945	8,192	40,581				8,294	49,173		775		775		10,375		10,375		54,589		54,589	200,025
1946	10,750	48,724				10,484	58,982		178		178		14,641		14,641		65,691		65,691	171,979
*Source: Annual reports filed in the office of the County Commissioner of Schools.																				209,450

\*\*Accurate statistics not available.

Read the table as follows: In 1926 Bates received no state aid other than Primary money. In 1934 it received \$6,980, and in 1946 it received \$10,750 in addition to Primary money. Read the remainder of the table in like manner.



is shown in Tables XIX and XX.

In 1933 Mansfield Township received no Primary Interest Fund payments, probably because of excessive balance or because of failure to file proper records. The rather wide variation in Primary Interest Fund payments shown in Table XIX would seem to indicate that districts cannot depend upon that source of income for even a relatively certain amount. Since 1940, however, this has been a less serious problem since at that time a full equalization state aid bill was passed and the Primary Interest Money became a part of the total picture.

It is also interesting to point out that Primary Interest payments likewise felt the effect of the Depression and the Fifteen Mill Tax Limitation Amendment. A large part of the Primary Interest Fund is derived from taxes upon Public Utilities collected by the state at the average tax rate collected on property throughout the state. The Fifteen Mill Amendment lowered the average tax rate drastically, and valuations placed by the State Tax Commission dropped in line with the decline in valuation of other property.

Statistics for miscellaneous state aid for Crystal Falls were unavailable for the years 1926 through 1932 for reasons already given. Such miscellaneous income was, it will be observed, relatively unimportant until 1934. Mansfield was not granted any state aid other than Primary Interest Fund payments from 1942 to 1944, in-

clusive, because of her otherwise favorable financial condition.

It is clear that state aid has not replaced the losses in local revenue occasioned by lowered valuations and constitutional tax limitation. A re-examination of the statistics for school membership easily explains why this is true. Each session of the legislature has increased the funds distributed to schools until, during the year ending 1946, \$60,000,000, including Primary Interest Fund money, was distributed. While state aid increased as a whole from just under \$22,000,000 in 1930 to \$60,000,000 in 1946, or 173 per cent, the grants to Iron County increased from just over \$107,000 to approximately \$270,000, making allowance for miscellaneous state aid. This represents an increase of \$163,000, or about 152 per cent. Had school population not declined so sharply, the state aid for the county would have been many thousands more than it has been—in fact, roughly \$112,000 more. Since it is clear that fixed costs do not decline as enrollments decline, the financial picture for the schools of Iron County would be much brighter had enrollments held to their 1930 level. The effect of declining enrollments will be further examined in a subsequent section of this study in connection with per capita costs of operation.



## C. BUDGET EXPENDITURES 1933 TO 1946

Just as the amount of revenue available to the schools is closely related to the quality of the education program offered, so is the manner in which that revenue is allocated to the various areas of the school budget likewise important. It is clear that the way in which money is used is fully as important as how it is acquired. The following pages will be devoted to a review of the manner in which the school administrators of Iron County have expended their incomes for school purposes, especially since 1933.

It will be impossible to provide a clear picture of school expenditures prior to 1933 because the methods of accounting for school funds prior to that date did not break expenditures into categories now generally accepted as good school accounting. To apply present classifications of budget expenditures to the years prior to 1933 would require a complete revision of the original school accounts, a task beyond the scope of this study and would not provide sufficient pertinent information to justify the effort involved. Enough evidence is available, however, to make necessary and desirable comparisons with more recent conditions.

The several tables on the following pages show expenditures for the classifications now used by the Michigan Department of Public Instruction in its uniform accounting system. These classifications have been rather uniform since 1933, but in a few in-



stances changes have been made which may require brief supplementary explanation.

The first area of expenditures herein reviewed is that of General Control. This includes such items as school board salaries, supplies, election expense, salaries of superintendents and assistants, business administrators, and all general items dealing strictly with general administration.

All districts, regardless of size, have certain General Control expenses that are largely duplication, and sometimes apparently unnecessary, although required by law. For example, in Iron County the three school districts of Iron River, Bates, and Stambaugh are required to publish notices of elections a prescribed number of times in the same newspaper, the Iron River Reporter. The four districts on the east side of the county, Crystal Falls, Hematite, Mansfield, and Mastodon likewise publish the same kind of notices in the same issues of the Crystal Falls Diamond Drill. The only difference in the notices is the signature of the school officers and the description of the place where voting will be conducted. Similar duplication exists in certain other General Control items. These duplications will be considered in detail when construction of a unified budget will be considered.

In Table XXI the total General Control expenditures for the seven school districts of Iron County are listed. All figures given in this table and in most following tables are correct to the nearest dollar.



TABLE XXI  
EXPENDITURES FOR GENERAL CONTROL PURPOSES BY ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$1,366	\$6,787	\$2,459	\$5,907	\$ 544	\$3,400	\$5,050	\$25,513
1934	2,396	6,200	2,234	6,183	721	2,867	4,945	25,546
1935	2,382	6,470	2,619	6,767	351	1,749	5,360	25,697
1936	2,409	6,719	2,744	7,149	687	3,451	6,437	29,596
1937	2,597	6,757	2,732	7,795	457	3,442	6,892	30,670
1938	2,616	7,413	2,430	7,635	508	3,531	6,610	30,743
1939	2,860	6,799	2,793	7,277	560	3,695	6,363	30,346
1940	2,824	6,355	2,179	7,184	567	1,805	6,600	27,514
1941	2,924	5,724	2,355	7,298	469	1,994	7,143	27,907
1942	3,002	6,287	2,840	7,803	702	1,945	7,189	29,768
1943	3,039	6,522	3,367	8,123	713	2,116	7,669	31,549
1944	3,126	6,865	3,657	8,518	1,055	2,018	8,550	33,788
1945	3,189	7,162	3,722	9,284	1,076	2,835	9,723	36,991
1946	2,759	8,033	4,046	7,983	1,315	3,042	10,354	37,532

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933 Bates Township School District expended \$1,366 for General Control purposes, while Crystal Falls District spent \$6,787 for the same purposes during the same school year, and all of the schools of Iron County expended \$25,513 for General Control. Read the remainder of the table in like manner.

With the exception of one district, Mastodon, the expenditures for general administration have increased sharply since 1933. If comparative figures were available for two or three years previous to 1933, they might reveal that districts had economized in administrative expense by 1933, as they have economized in other areas. June, 1933 was perhaps the low point of the Depression. On the other hand, the Fifteen Mill Limitation Act was not effective until the school year ending June, 1934, and it is evident from a study of Table XXI that general administrative expense did not decline in the years immediately following tax limitation.

Bates, Mansfield, and Stambaugh more than doubled their expenditures for General Control in the fourteen years covered in Table XXI, while the county as a whole increased expenditures by 47.1 per cent. Administrative and clerical salaries have increased considerably in the fourteen years studied, and there have been some changes in allocation of the percentage of the superintendent's salary to General Control which may have affected the totals shown, but irrespective of all allowances made, it is clear that administrative costs have risen.

Much of General Control expense can be considered almost in the nature of a fixed expense regardless of school enrollment. The same school board is needed, the same, or nearly the same, superintendence is required, and nearly the same legal processes must be followed regardless of enrollment. Table XXII portrays the effect of declining enrollment upon the per capita costs of



TABLE XIII

## PER CAPITA EXPENDITURES FOR GENERAL CONTROL BY ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$ 3.53	\$ 5.53	\$ 7.61	\$ 3.26	\$ 18.77	\$ 9.52	\$ 2.67	\$ 4.07
1934	6.99	5.19	7.78	3.56	24.03	8.14	2.74	4.42
1935	6.58	5.96	9.84	3.95	11.69	5.55	3.04	4.64
1936	6.92	6.33	10.12	4.31	24.52	10.09	3.75	5.48
1937	7.64	6.42	11.34	4.82	16.30	10.85	4.23	5.87
1938	7.90	7.41	10.57	5.05	16.38	11.43	4.01	6.07
1939	9.50	6.81	13.56	4.77	19.99	12.56	4.01	6.15
1940	10.31	6.46	9.31	4.88	24.66	6.39	4.30	5.73
1941	11.24	5.93	10.00	5.30	17.36	7.50	5.03	6.14
1942	12.35	7.14	14.78	5.79	41.31	7.62	5.42	6.99
1943	13.27	7.86	20.16	6.41	50.91	9.66	5.89	7.91
1944	15.17	8.53	23.90	7.09	75.34	9.26	7.26	8.95
1945	15.95	9.39	24.17	8.10	119.54	12.83	8.43	10.15
1946	13.93	10.42	26.62	6.75	87.65	14.15	8.84	10.12

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933 the average expenditure per year-end membership child in the Bates Township Schools was \$3.53; the average cost for Crystal Falls was \$5.53, and for all schools in Iron County the average cost for 1933 was \$4.07. Read the remainder of the table in like manner.



### General Control for Iron County Schools.

As shown in Table XXII, per capita expenditures for General Control in all Iron County school districts increased sharply during the period under consideration. The range in percentage is from 49 per cent for Mastodon Township to 367 per cent for Mansfield Township. The percentage for the county as a whole is 149 per cent. Bates, Iron River, and Stambaugh show an almost unbroken climb in per capita expenditures for General Control during each successive year.

As might be expected, a definite relationship was found between the size of the school and the per capita expenditure for General Control. The only apparent exception to this observation is the case of Bates Township for 1933, which shows a smaller per capita cost than the much larger Crystal Falls system. Upon examination of the records it was found that the low per capita cost is due to the percentage of the superintendent's salary allocated to General Control. Most of the smaller schools have properly adopted the practice of allocating part of the superintendent's salary to supervision or to teaching. The two larger schools, Iron River and Stambaugh, have not followed this practice. In spite of that fact, however, their per capita costs have remained much lower than the figures for the other schools. The very large per capita cost figure for Mansfield is principally due to the very low enrollment found there.

The largest item of expense in any school budget is for instructional salaries. Table XXIII lists the expenditures for

TABLE XXIII

## EXPENDITURES FOR TEACHERS' SALARIES ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	CRYSTAL FALLS			IRON RIVER			MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
	BATES	FALLS	HEMATITE	FALLS	RIVER	MASTODON				
1926	\$19,910	\$99,078	\$27,375	\$108,216	\$3,050	\$24,000	\$112,290	\$393,919		
1927	20,466	99,042	27,026	105,803	4,300	24,310	108,777	389,724		
1928	21,185	97,640	25,889	105,797	4,037	23,550	112,560	390,658		
1929	21,025	90,435	24,750	113,785	3,857	24,033	119,181	397,066		
1930	23,585	87,684	26,714	116,176	2,420	24,600	125,445	406,624		
1931	23,985	88,176	27,709	118,807	2,250	24,726	125,870	411,523		
1932	21,581	84,749	27,669	110,229	2,184	23,857	117,533	387,802		
1933	14,401	54,531	19,484	51,409	1,540	16,229	46,052	204,146		
1934	10,100	38,806	10,031	52,407	1,972	11,214	45,892	170,422		
1935	12,411	38,988	10,038	54,311	990	9,724	44,876	171,338		
1936	13,289	42,760	13,367	71,031	1,991	12,656	54,463	209,557		
1937	15,179	39,408	12,562	77,597	1,485	11,753	59,083	217,067		
1938	16,561	51,481	12,228	86,965	1,485	13,066	66,462	248,248		
1939	16,315	44,802	12,955	80,593	1,486	15,345	56,146	227,642		
1940	16,234	40,932	12,404	75,885	855	16,668	61,139	224,117		
1941	16,899	39,237	12,603	70,571	900	16,032	59,785	216,027		
1942	15,984	40,929	11,831	70,260	990	14,441	64,183	218,618		
1943	17,046	39,525	9,177	70,459	1,080	18,874	59,394	215,555		
1944	18,501	45,910	9,952	71,147	1,253	18,539	64,687	229,989		
1945	16,738	52,422	9,839	74,339	1,339	18,056	62,137	234,870		
1946	19,839	60,262	12,969	78,790	1,920	20,713	83,591	278,084		

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926 Bates Township Schools expended \$19,910 for regular teachers' salaries, not including supervision or administration. In the same year Crystal Falls spent \$99,078 and the county as a whole spent \$393,919. Read the remainder of the table in like manner.



regular teachers' salaries from 1926 through 1946 for all school districts in Iron County. The table shows the startling effects of the Great Depression and the adoption of the Fifteen Mill Tax Limitation Amendment. The greatest expenditure for teachers' salaries in the county as a whole was in the year ending June, 1931. Some recession was evident for the following school year, but teachers were under contract and Boards of Education had still a year to wait before disregarding contracts in wholesale fashion, as happened in the summer of 1932, and as evidenced by the terrific decline over the preceeding year of nearly fifty per cent. The decline in total salaries reached the lowest point in 1934, the first year in which the effect of the Tax Limitation Act was felt.

Part of the drop in total salaries is due to a decline in the number of teaching positions. A review of school membership statistics (Table III, page 19) shows that enrollments had been declining very little until 1934. The decline in salary payments cannot, therefore, be explained by declining enrollment until after 1933. A study of teacher lists, however, indicates that it was during this period that special departments were abandoned or greatly reduced. Many regular and relatively high paid out-of-town teachers were replaced by local talent at much lower salaries.

Table XXIV pictures the average salary situation based on the number of teaching positions reported by the various districts from 1926 through 1946.

TABLE XXIV

AVERAGE EXPENDITURE FOR SALARIES PER TEACHING POSITION IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1926	\$1,171	\$1,357	\$1,369	\$1,370	\$1,525	\$1,333	\$1,306	\$1,335
1927	1,279	1,415	1,422	1,339	1,433	1,351	1,395	1,377
1928	1,324	1,479	1,438	1,411	1,346	1,385	1,402	1,415
1929	1,314	1,483	1,375	1,422	1,286	1,414	1,453	1,433
1930	1,474	1,437	1,484	1,489	1,210	1,447	1,549	1,489
1931	1,411	1,495	1,539	1,543	1,125	1,403	1,516	1,508
1932	1,432	1,436	1,537	1,395	1,092	1,491	1,451	1,436
1933	1,080	1,069	1,126	767	770	1,082	755	896
1934	795	892	717	832	986	773	791	823
1935	1,034	984	788	905	990	695	816	873
1936	1,099	972	922	1,093	990	904	939	1,000
1937	1,084	936	930	1,232	743	979	1,074	1,161
1938	1,183	1,287	906	1,380	742	1,089	1,303	1,286
1939	1,255	1,211	1,152	1,366	743	1,180	1,221	1,256
1940	1,356	1,137	1,079	1,380	855	1,191	1,329	1,277
1941	1,408	1,121	1,096	1,357	900	1,233	1,359	1,282
1942	1,453	1,240	1,245	1,434	990	1,268	1,493	1,382
1943	1,508	1,235	1,208	1,499	1,080	1,452	1,702	1,437
1944	1,637	1,435	1,170	1,603	1,253	1,612	1,748	1,578
1945	1,681	1,588	1,230	1,729	1,339	1,720	1,635	1,664
1946	1,804	2,054	1,297	1,922	1,920	2,031	2,090	1,949

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: The average amount paid for each teaching position in the Bates Township School during the year ending June, 1926 was \$1,171. In 1946, the average amount paid for each teaching position in the same school was \$1,804. The remainder of the table should be read in like manner.

In spite of large school budgets in the years prior to the Depression, salaries were not large. There was a steady increase in average salaries paid until 1931, a relatively light loss occurred for the year ending June, 1932, and an amazing decline in 1933. The low point was reached in 1934, the first year in which tax limitation affected school income. Recovery was slow but steady until 1945, and a sharp increase is shown for the year ending June, 1946. It will be noted that average salaries range from just under thirteen hundred dollars to just under twenty-one hundred dollars within Iron County, a difference of eight hundred dollars per teaching position. Living costs do not vary to that extent, although there is probably some difference present.

Average salaries are important for the administrator, but mean little to the teacher, since the high-salaried teacher brings up the average of the poorly paid one, and vice versa. Recognizing this problem, the administrators of Iron County completed a study in January, 1945, under the joint direction of K. W. Schulze, Superintendent of Schools, Crystal Falls, and E. Burr Sherwood, Iron County Commissioner of Schools, covering the salary situation in the schools of the Upper Peninsula of Michigan.<sup>7</sup> The study reported average salaries according to training and experience. Table XXV summarizes the findings for the schools of Iron County.

---

<sup>7</sup> K. W. Schulze and E. Burr Sherwood, "Upper Peninsula Salary Survey", (mimeographed report of Committee On Salaries to Annual Conference Upper Peninsula School Board Members and Superintendents, Crystal Falls, Michigan, February, 1945), 42 pp.

TABLE XIV

DISTRIBUTION AND AVERAGE SALARIES OF TEACHERS BY TRAINING AND EXPERIENCE  
IN IRON COUNTY SCHOOLS, FEBRUARY, 1946

DISTRICT**	YEARS TRAIN- ING	EXPERIENCE BY 5-YEAR PERIODS									
		0 TO 5 YEARS	6 TO 10 YEARS	11 TO 15 YEARS	16 TO 20 YEARS	21 TO 25 YEARS	OVER 25 YEARS				
BATES	0 TO 4	\$1800 (2)*	\$1900 (2)								
	4 TO 5	2280 (1)	2000 (1)		\$2000 (1)						
	OVER 5			\$2535 (1)	2350 (1)						
CRYSTAL FALLS	0 TO 4		1664 (2)	1760 (7)		\$1986 (1)	\$1965 (6)				
	4 TO 5		2060 (2)	2082 (5)	2146 (2)						
	OVER 5	2601 (1)		2772 (1)		2469 (1)	2254 (1)				
HEMATITE	0 TO 4		1508 (1)	1508 (1)							
	4 TO 5		1800 (1)		1890 (1)	1620 (1)	1508 (1)				
	OVER 5						1620 (1)				
IRON RIVER	0 TO 4	1408 (1)	1408 (3)	1408 (4)	1717 (3)	2024 (2)	1872 (5)				
	4 TO 5		1943 (2)	2125 (5)	2217 (4)	2226 (1)	2226 (1)				
	OVER 5				2387 (1)	2387 (1)	2387 (2)				
MANSFIELD	0 TO 4			1900 (1)							
	4 TO 5										
	OVER 5										
MASTODON	0 TO 4	1558 (1)	1681 (2)		1900 (1)	1558 (2)					
	4 TO 5	1805 (2)		2000 (1)							
	OVER 5					1995 (1)					
STAMBAUGH	0 TO 4	1586 (3)	1715 (3)	1932 (2)	1856 (5)	1908 (1)	2027 (2)				
	4 TO 5	1718 (1)	2050 (2)	2145 (3)	2160 (5)	2202 (2)	2145 (3)				
	OVER 5			2359 (2)	2525 (1)	2288 (1)					

\* Number of teachers in salary bracket.

\*\*Source: "Upper Peninsula Salary Survey" (see footnote page 74).

Read the table as follows: In Bates Township there were 2 teachers with 5 or less years experience whose salaries averaged \$1800. One teacher with a degree and 5 or less years experience received \$2280, and one teacher with a Master of Arts degree and 11 to 15 years experience received \$2535. Read the remainder of the table in like manner.

Crystal Falls, Iron River and Stambaugh have definite salary schedules. Crystal Falls and Stambaugh make no differentiation between men and women. Iron River pays men \$100 more than women. None of the schools makes grade placement a factor in their salary policies. Iron River paid all temporary teachers without degrees a flat salary, \$1408 in 1945-46, regardless of years of experience. Stambaugh and Crystal Falls fit them into their schedules. There are some discrepancies in the figures shown by the Table as some teachers were hired outside the schedule.

In preparing Table XXV all special teachers, part-time teachers, and teaching principals are excluded. The table shows, therefore, the salary situation for only regular classroom teachers. This accounts for some of the differences which may appear in the statistics in Table XXV as compared with those of Table XXIV, pages 73 and 75. Another factor in the apparent discrepancy of the two tables is that Table XXV shows contractual salaries and does not include the distribution of supplemental state aid distributed to school employees in June, 1946, while Table XXIV includes this distribution. Moreover, several changes in teaching personnel were made during the year; some servicemen returned during the second semester and their part-year salaries tend to lower the averages in Table XXIV.

It is easily seen that the age and training background of a system's teachers definitely affects its average salaries. Careful analysis reveals that a school with a young, well-trained faculty might have a lower average salary situation than another system with



an older faculty, in spite of having a more liberal salary schedule. Examination of teacher lists for many years indicates a general trend to longevity of service in Iron County schools. This fact, together with constantly increasing educational training, is placing a larger percentage of teachers in the upper salary brackets and is, consequently, raising the average salary and the per capita costs of instruction. This study does not attempt in any way to measure whether this condition is returning proportionate educational dividends to the community.

It has been pointed out repeatedly that enrollment declines have had a serious effect upon per capita costs. It is obvious that the degree of effect is closely related to the relative fixity of the expenditure item under consideration. As enrollments decline, teaching personnel can be reduced, but not always at the same rate. In the smaller schools it is more difficult to reduce staff in the same proportion as enrollment declines. An algebra class requires a teacher whether there are fifteen or thirty-five enrolled. If, however, an algebra enrollment of forty-five declines to thirty-five, one teacher may be eliminated and a considerable per capita savings recorded. It was shown in Table VIII, page 30, that pupil-teacher ratios remained almost constant since 1933 in the larger schools, but declined sharply in the smaller schools. Other things being equal, per capita costs for instruction should vary more sharply in the smaller schools. Table XXVI shows per capita costs for teachers' salaries from 1926 through 1946.

TABLE XXVI

PER CAPITA EXPENDITURES FOR TEACHERS' SALARIES IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	CRYSTAL			IRON			MANSFIELD	MASTODON	STANBAUGH	COUNTY TOTAL*
	BATES	FALLS	HEMATITE	RIVER						
1926	\$60.15	\$57.04	\$69.83	\$58.40		\$66.30	\$54.55	\$55.18		\$57.73
1927	61.83	60.54	76.56	58.36		86.00	62.50	54.72		59.38
1928	65.28	61.56	67.95	58.55		85.89	62.66	57.55		60.32
1929	58.08	60.41	66.17	60.20		77.14	62.26	55.40		59.80
1930	62.56	62.41	78.11	58.91		69.14	63.08	60.66		62.68
1931	62.62	65.32	80.08	55.79		66.18	65.58	61.94		62.88
1932	55.34	64.63	74.17	55.73		64.24	64.30	58.95		60.22
1933	37.21	44.41	58.81	28.38		53.10	45.49	24.39		32.54
1934	29.44	32.50	34.95	30.15		65.72	31.85	25.46		29.50
1935	34.29	35.93	41.19	31.74		33.00	30.89	25.42		30.95
1936	37.90	40.30	49.32	42.87		70.73	37.01	31.74		38.64
1937	44.64	37.33	52.13	49.02		53.01	37.08	36.27		41.55
1938	50.04	51.48	53.17	57.59		47.89	42.28	40.28		49.05
1939	54.20	44.89	62.89	52.82		53.01	52.19	35.42		46.11
1940	59.25	41.60	53.01	51.59		37.17	59.11	39.85		46.67
1941	65.00	40.65	53.40	51.25		33.33	60.27	42.07		47.56
1942	65.79	46.45	61.62	52.20		58.23	67.75	48.40		51.32
1943	74.44	47.62	61.54	56.37		77.14	86.18	49.76		54.06
1944	89.81	57.03	65.05	60.02		89.48	85.04	54.91		60.91
1945	84.04	69.18	63.89	65.37		148.72	81.73	56.82		64.42
1946	100.20	78.16	85.32	66.60		128.00	96.34	71.36		75.01

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926 the per capita cost for teachers' salaries in the Bates Township School District was \$60.15. In 1934 the per capita cost for the same district was \$29.44 and in the year ending June, 1946 the per capita cost for salaries was \$100.20. The remainder of the table should be read in like manner.

Per capita costs for teachers' salaries climbed slowly in Iron County from 1926 until 1931 in about the same proportion as total salaries paid to teachers, since enrollments did not change materially during those years. The year 1932 witnessed a slight decline in anticipation of Depression difficulties, but the sharpest losses occurred in 1933, when per capita costs decreased from 20 per cent in Hematite to 60 per cent in Stambaugh. The decline continued into the next year, as might be expected, since the effects of the Tax Limitation Act operated for the first time in 1934. Had not enrollment declined approximately 800 children between 1932 and 1934, the per capita losses would have appeared even more drastic. Following the introduction of additional state aid as a factor in school finance, the per capita costs again climbed steadily, with the exception of the year 1939. Much of the rise is due to declining enrollments and the inability to cut staffs proportionately, especially in the smaller schools. Part of the rise is due, however, to higher teacher salaries.

One thing is very clear from a study of Table XXVI. There is a definite relationship between the school enrollment and the per capita costs for teachers' salaries. The smallest school district, Mansfield, had by far the highest per capita cost in 1946, while the largest school district, Iron River, had the lowest—only slightly more than half of the Mansfield cost. It is significant to note also, that the average salaries were almost identical in Mansfield and in Iron River.

Teachers' salaries, while properly the largest single item in the instructional costs of schools, and inadequate as they are, by no means constitute the only justifiable instructional costs. Supervision, materials, supplies, text-books, library expense, visual and auditory aids, and so on add to the cost of properly instructing boys and girls.

It is considerably more difficult to secure comparative statistics for pure supervision than for direct instruction since there is no uniform practice in accounting for supervision within the schools of Iron County. School districts do not allocate the same proportion of administrators' salaries to supervision. In at least one school, Stambaugh, special teachers were for several years reported as supervisors, a policy growing out of instructional practices followed in the "lush" years when special teachers did actually go from school to school supervising grade teachers in their specialized fields. To a limited extent, this practice is currently followed in the Stambaugh and Iron River systems, but special teachers are now reported as regular teachers, and only supervisors and supervising principals are reported in the area of supervision.

Table XXVII and Table XXVIII, immediately following, are introduced and should be studied together to depict the absolute and the per capita costs of instructional supervision in so far as school districts report expenditures in this area.



TABLE XXVII

## EXPENDITURES FOR SUPERVISION IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$ 619	\$10,197	\$ 1,185	\$ 4,139	\$	\$	\$15,584	\$31,724
1934	700	4,950					6,270	11,920
1935	1,300	5,277		3,563		851	11,593	22,584
1936	1,300	7,913					15,689	24,902
1937	1,400	7,729				76	18,829	28,034
1938	1,550	10,050	1,500			63	20,892	34,055
1939	1,650	9,308		6,100			18,660	35,718
1940	1,700	8,755		6,100			18,021	34,576
1941	1,750	8,974		6,100			18,442	34,266
1942	1,750	9,461		6,700		740	14,148	32,799
1943	1,860	11,459		7,150		742	14,395	35,606
1944	1,980	14,426		7,700		683	15,743	40,532
1945	1,980	7,125		8,112		1,418	16,815	35,450
1946	1,525	6,617		5,992		1,157	16,837	32,128

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933 Bates Township Schools allocated \$619 of their instructional expense to supervision, Crystal Falls allocated \$10,197 to supervision, Stambaugh allocated \$15,584 to supervision, and the total allocated by all schools for supervision expense was \$31,724. Blank spaces indicate that the accounting practice of the school did not allocate any of the superintendent's or principal's salaries, or other expense, to supervision during those years. Read the remainder of the table in like manner.

TABLE XXVIII

## PER CAPITA EXPENDITURE FOR SUPERVISION IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL		HEMATITE	IRON		MANSFIELD	MASTODON	STAMBAUGH	COUNTY	
		FALLS			RIVER					TOTAL*	
1933	\$ 1.60	\$ 8.47	\$ 3.56	\$ 2.29	\$	\$ 8.25	\$ 5.06			\$	5.06
1934	2.04	4.15				3.48	2.06				2.06
1935	3.59	4.71		2.05		6.57	4.08	2.70			4.08
1936	3.73	7.48				9.14	4.59				4.59
1937	4.12	7.34				11.56	5.37	.24			5.37
1938	4.68	10.05	6.52			12.66	6.73	.20			6.73
1939	5.48	9.33		4.00		11.77	7.23				7.23
1940	6.20	8.89		4.15		11.75	7.20				7.20
1941	6.73	9.30		4.43		12.98	7.54				7.54
1942	7.20	10.74		4.98		10.67	7.69	2.90			7.69
1943	8.65	13.80		5.72		11.07	8.93	3.39			8.93
1944	9.13	17.93		6.41		13.36	10.73	3.13			10.73
1945	9.90	9.34		7.08		14.58	9.72	6.42			9.72
1946	7.70	8.59		5.06		14.38	8.67	5.38			8.67

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933 Bates Township expended \$1.60 per year-end membership child for supervision. In 1946 the same district expended \$7.70 for supervision. For the county as a whole, \$5.06 per child was expended for supervision in 1933 compared with \$8.67 spent for supervision in 1946. Per capita expenditures for the county as a whole include all children regardless of whether funds were expended by their districts for supervision. The remainder of the table should be read in like manner.

.....

.....

.....

.....

.....

.....



Tables XXVII and XXVIII clearly indicate that there is no uniform policy regarding accounting practices in the field of supervision within Iron County. Mansfield, operating only a one-room school, had no direct supervision expense. Supervision is given this district by the Commissioner of Schools. Examination of records reveals that the sharp decline reported for Stambaugh in 1934 is due to a change in accounting practice and the abolition of special departments of instruction, namely, music, physical education, manual arts, and perhaps some other so-called "frills". This was likewise true in the Crystal Falls district for the same year. Between 1936 and 1938, inclusive, Iron River considered its expense for principals' salaries as a teacher expense. This district has never counted its special teachers as supervisors.

Per capita expense for supervision has varied even more widely than has total expenditures for supervision. In Bates Township, for instance, the per capita expenditure in 1945 was more than six times as great as in 1933, while actual expenditures were only two and one-half times as great. This is, of course, due to the decline in school membership.

Because of the difference in accounting policies it is wise not to place too much importance on the relative costs of supervision, but rather to consider such costs together with other instructional costs. Table XXIX and Table XXX complete the breakdown of instructional costs and should be considered together with the same degree of caution suggested regarding supervision statistics.

TABLE XXIX

## MISCELLANEOUS EXPENDITURES FOR INSTRUCTION IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL		IRON		MANSFIELD	MASTODON	STAMBAUGH	COUNTY	
		FALLS	HEMATITE	RIVER	TOTAL *					
1933	\$4,470	\$6,626	\$ 754	\$4,278	\$1,111	\$1,392	\$4,058	\$22,689		
1934	4,674	3,564	284	2,399	105	983	2,581	14,590		
1935	5,077	2,869	681	4,165	79	842	2,969	16,892		
1936	1,658	3,354	1,811	4,654	138	1,154	6,695	19,464		
1937	3,116	3,625	1,286	3,817	159	1,948	6,188	20,139		
1938	3,482	3,836	1,078	4,350	147	1,501	6,215	20,609		
1939	1,965	3,114	608	4,056	71	1,493	4,383	15,690		
1940	2,261	851	1,136	3,824	207	1,271	2,916	12,466		
1941	1,668	2,605	862	4,058	316	1,221	3,697	14,427		
1942	1,983	2,629	801	4,996	141	1,889	3,868	16,307		
1943	2,284	3,692	739	4,179	80	1,431	3,612	16,017		
1944	1,623	5,424	440	3,033	354	1,682	4,550	17,106		
1945	955	4,689	1,250	3,213	313	1,980	3,866	16,266		
1946	1,252	5,872	1,284	3,673	385	1,959	3,436	17,861		

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In the year ending June, 1933, Bates Township Schools expended \$4,470 for instructional expense other than teachers' salaries, supervisors' and principals' salaries, and supervision expense. In 1946 Bates spent \$1,252 for the same purposes. Items included in the table are: teaching supplies, books, supplementary readers, free texts, library books and expense, and miscellaneous items. Read the remainder of the table in like manner.



TABLE XXX

PER CAPITA MISCELLANEOUS EXPENDITURES FOR INSTRUCTION IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$11.55	\$ 5.39	\$ 2.26	\$ 2.36	\$38.31	\$ 3.90	\$ 2.15	\$ 3.62
1934	13.63	2.98	.99	1.38	3.50	2.79	1.43	2.52
1935	14.02	2.64	2.54	2.43	2.63	2.67	1.68	3.05
1936	4.77	3.16	6.68	2.81	4.93	3.37	3.90	3.59
1937	9.16	3.44	5.34	2.36	5.68	6.15	3.79	3.85
1938	10.52	3.84	4.69	2.88	4.74	4.86	3.77	4.07
1939	6.53	3.12	2.95	2.66	2.54	5.08	2.76	3.18
1940	8.25	.86	4.85	2.60	9.00	4.51	1.90	2.59
1941	6.40	2.70	2.81	2.94	11.70	4.55	2.60	3.18
1942	8.16	2.98	4.17	3.71	8.29	7.41	2.92	3.83
1943	9.97	4.45	4.42	3.34	5.71	6.53	2.78	4.02
1944	7.88	6.74	2.88	2.52	25.29	7.72	3.86	4.53
1945	4.78	6.14	8.12	2.72	34.78	8.96	3.35	4.46
1946	6.32	7.62	4.45	3.10	25.67	9.11	2.93	4.82

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, \$11.55 was expended per year-end membership child for teaching supplies, books, library, and miscellaneous instruction expense in the Bates Township Schools. Crystal Falls expended \$5.39 per child during the same year for similar instructional purposes. The remainder of the table should be read in like manner.



TABLE XXX

PER CAPITA MISCELLANEOUS EXPENDITURES FOR INSTRUCTION IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	CRYSTAL FALLS		HEMATITE		IRON RIVER		MANSFIELD		MASTODON		STAMBAUGH		COUNTY TOTAL*	
	BATES													
1933	\$11.55	\$ 5.39	\$ 2.26	\$ 2.36	\$38.31	\$ 3.90	\$ 2.15	\$ 3.62						
1934	13.63	2.98	.99	1.38	3.50	2.79	1.43	2.52						
1935	14.02	2.64	2.54	2.43	2.63	2.67	1.68	3.05						
1936	4.77	3.16	6.68	2.81	4.93	3.37	3.90	3.59						
1937	9.16	3.44	5.34	2.36	5.68	6.15	3.79	3.85						
1938	10.52	3.84	4.69	2.88	4.74	4.86	3.77	4.07						
1939	6.53	3.12	2.95	2.66	2.54	5.08	2.76	3.18						
1940	8.25	.86	4.85	2.60	9.00	4.51	1.90	2.59						
1941	6.40	2.70	2.81	2.94	11.70	4.55	2.60	3.18						
1942	8.16	2.98	4.17	3.71	8.29	7.41	2.92	3.83						
1943	9.97	4.45	4.42	3.34	5.71	6.53	2.78	4.02						
1944	7.88	6.74	2.88	2.52	25.29	7.72	3.86	4.53						
1945	4.78	6.14	8.12	2.72	34.78	8.96	3.35	4.46						
1946	6.32	7.62	4.45	3.10	25.67	9.11	2.93	4.82						

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, \$11.55 was expended per year-end membership child for teaching supplies, books, library, and miscellaneous instruction expense in the Bates Township Schools. Crystal Falls expended \$5.39 per child during the same year for similar instructional purposes. The remainder of the table should be read in like manner.

Table XXIX and Table XXX show a rather pronounced relationship between the size of the school district and the expenditure for miscellaneous items of instruction. Iron River and Stambaugh have maintained per capita expenditures for such items at a relatively uniform figure. The smaller schools have fluctuated more but not so considerably in this category as in some other items of expenditure. Declining enrollments have raised per capita expenditures, but again, not so rapidly. Fewer books and supplies are needed for fewer pupils.

Inquiry reveals that school administrators of Iron County have deliberately kept expenditures at as low a figure as possible in order to provide more funds for teachers' salaries. They are aware of the fact that instructional efficiency can probably be increased very decidedly with the expenditure of more funds for instructional supplies. In nearly all appeals to the public for additional millage the point is stressed that more funds are needed for this purpose.

It should be noted that differences in accounting practices tend to make some of the figures used in the preceeding several tables less reliable when considered alone. They were used in spite of that weakness, however, in an attempt to paint a clearer picture than mere totals alone would give. Table XXXI combines all the expenditures for instructional purposes and Table XXXII depicts the per capita cost of all instruction. They, too, should be considered together.





TABLE XXXI

## TOTAL EXPENDITURES FOR INSTRUCTION IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL		HEMATITE	IRON		MANSFIELD	MASTODON	STAMBAUGH	COUNTY	
		FALLS			RIVER					TOTAL*	
1933	\$19,490	\$71,578	\$21,422	\$59,826	\$2,651	\$17,621	\$65,694	\$258,282			
1934	15,473	47,320	10,315	54,805	2,076	12,197	54,743	196,929			
1935	18,788	47,133	11,719	62,039	1,069	11,426	59,438	211,612			
1936	16,147	54,027	15,178	75,537	2,118	13,935	76,847	253,789			
1937	19,695	50,762	13,849	81,565	1,644	13,776	84,101	265,392			
1938	21,593	65,365	14,806	91,315	1,556	14,630	93,569	302,834			
1939	19,930	57,224	13,563	90,751	1,631	16,954	79,190	278,674			
1940	20,196	50,538	13,540	85,809	1,062	18,690	82,077	271,912			
1941	20,412	50,816	13,465	81,564	1,216	18,137	81,924	267,534			
1942	19,736	53,020	12,631	82,575	1,131	19,907	82,821	271,821			
1943	21,190	54,675	11,017	82,682	1,160	21,133	79,128	270,985			
1944	22,662	65,759	10,558	83,811	1,608	21,143	85,781	291,322			
1945	19,743	64,596	11,089	86,245	2,343	21,550	86,320	291,886			
1946	22,676	73,075	14,253	89,368	2,305	24,221	103,864	329,762			

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933 the total cost of all items directly connected with instruction for the Bates Township Schools was \$19,490. Crystal Falls expended \$71,578 during the same year for all items of instruction and the total spent by all of the schools of Iron County during the school year 1932-33 was \$258,282. Read the remainder of the table in like manner.

1. The first part of the document is a list of the names of the persons who were present at the meeting. The names are listed in alphabetical order.

2. The second part of the document is a list of the topics that were discussed at the meeting. The topics are listed in alphabetical order.

3. The third part of the document is a list of the actions that were taken at the meeting. The actions are listed in alphabetical order.

4. The fourth part of the document is a list of the decisions that were made at the meeting. The decisions are listed in alphabetical order.

5. The fifth part of the document is a list of the recommendations that were made at the meeting. The recommendations are listed in alphabetical order.

6. The sixth part of the document is a list of the conclusions that were reached at the meeting. The conclusions are listed in alphabetical order.

7. The seventh part of the document is a list of the resolutions that were adopted at the meeting. The resolutions are listed in alphabetical order.

8. The eighth part of the document is a list of the minutes that were taken at the meeting. The minutes are listed in alphabetical order.

9. The ninth part of the document is a list of the reports that were made at the meeting. The reports are listed in alphabetical order.

10. The tenth part of the document is a list of the statements that were made at the meeting. The statements are listed in alphabetical order.

11. The eleventh part of the document is a list of the questions that were asked at the meeting. The questions are listed in alphabetical order.

12. The twelfth part of the document is a list of the answers that were given at the meeting. The answers are listed in alphabetical order.

13. The thirteenth part of the document is a list of the motions that were made at the meeting. The motions are listed in alphabetical order.

14. The fourteenth part of the document is a list of the votes that were cast at the meeting. The votes are listed in alphabetical order.

15. The fifteenth part of the document is a list of the signatures that were made at the meeting. The signatures are listed in alphabetical order.

TABLE XXXII

## PER CAPITA EXPENDITURES FOR INSTRUCTION IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$50.10	\$58.29	\$64.33	\$33.03	\$91.41	\$49.36	\$34.79	\$41.17
1934	45.11	39.63	35.94	31.53	69.20	34.65	30.38	34.11
1935	51.90	43.44	43.72	36.26	35.63	36.27	33.67	38.22
1936	46.40	50.92	56.01	45.52	75.64	40.74	44.78	46.80
1937	57.93	48.21	57.46	50.47	58.73	43.46	51.63	50.80
1938	65.24	65.36	64.38	60.47	52.63	47.35	56.71	59.84
1939	66.21	57.34	65.84	59.55	55.57	57.67	50.00	56.45
1940	73.71	51.36	57.86	59.01	46.17	66.28	53.51	56.62
1941	78.50	52.66	57.05	59.23	45.04	68.15	57.65	58.90
1942	81.22	60.18	65.79	61.35	66.55	78.06	62.46	63.81
1943	92.53	65.87	65.97	66.09	82.89	96.49	60.87	67.97
1944	110.01	81.69	69.01	69.73	114.83	96.99	72.82	77.15
1945	98.71	84.66	72.01	75.25	260.37	97.51	74.86	80.05
1946	114.52	94.78	93.77	75.54	153.67	112.66	88.69	88.98

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, the average expenditure for all items of instruction per year-end membership child in Bates Township School District was \$50.10, for Crystal Falls, \$58.29, and for the county as a whole \$41.17. The remainder of the table should be read in like manner.

With two exceptions, Hematite and Mansfield, the expenditures for instruction in all Iron County schools increased sharply from 1933 to 1946, in spite of decided loss in enrollments. The first year following the limitation of taxes, 1934, marked the low point in instructional expense for all districts except Mansfield and Mastodon. Increases in instructional expense were rather consistent in nearly all districts following 1934 as state aid payments to local districts increased. The percentage range of increase from 1934 to 1946 was from 11 per cent in Mansfield to 89 per cent in Stambaugh. Attention is called to the increase in Stambaugh for 1946 over 1945, over 20 per cent for one year. During this year Stambaugh announced salary increases on the average of over two hundred dollars per teacher.

Much sharper changes in instructional expense are recorded on a per capita basis. From the 1934 figure, all districts more than doubled the per capita expenditures for instruction. Again, the per capita increase was generally steady from 1935 onward. The lowest per capita rate of increase was for Crystal Falls which increased costs 139.2 per cent and the highest was Mastodon with a per capita increase of 225 per cent. The increase for the county as a whole was 161 per cent.

The third major item of school expense is for auxiliary and coordinate affairs. Included in this classification are such things as transportation, public library, health services, school

lunch, recreation, and similar items. A summary of amounts spent for auxiliary and coordinate affairs is shown in Table XXXIII.

TABLE XXXIII

TOTAL EXPENDED FOR AUXILIARY AND COORDINATE AFFAIRS IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	CRYSTAL			IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY	
	BATES	FALLS	HEMATITE					TOTAL*	TOTAL*
1933	\$4,038	\$6,458	\$3,888	\$11,986	\$1,554	\$3,130	\$7,148	\$38,202	
1934	3,687	4,417	2,909	11,445	1,166	2,538	7,354	33,516	
1935	7,512	6,158	3,114	12,679	986	2,945	11,791	45,185	
1936	4,076	8,555	3,073	16,399	1,772	2,958	14,147	50,979	
1937	4,516	9,214	2,420	17,052	1,124	3,677	9,662	47,665	
1938	4,811	9,564	2,343	17,758	1,056	4,429	12,009	51,970	
1939	4,667	8,888	1,949	17,285	1,270	4,089	12,107	50,255	
1940	5,407	6,831	1,671	15,101	1,992	3,505	12,621	47,128	
1941	4,449	7,512	1,554	14,453	1,312	3,586	11,531	44,398	
1942	4,221	8,072	1,949	15,672	1,585	3,892	12,369	47,760	
1943	4,648	7,297	1,458	13,624	1,215	4,220	11,145	43,608	
1944	4,713	8,145	1,738	13,537	2,123	4,330	13,469	48,055	
1945	4,342	7,184	1,403	12,099	1,973	4,670	12,680	44,351	
1946	4,866	7,592	1,806	13,004	1,847	4,986	14,085	48,186	

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, the Bates Township School District spent a total of \$4,038 for transportation, school lunch, and other auxiliary and coordinate activities. During the same year, Crystal Falls Township School District spent \$6,458 for the same activities, while expenditures for the county as a whole totalled \$38,202. Read the remainder of the table in like manner.

All Iron County schools are more or less consolidated and the problem of pupil transportation is, therefore a large one. The records show that more than eighty per cent of the expenditures listed in Table XXXIII are for bringing children to central school plants and returning them at the close of the day. While some districts show an increase in actual expense for transportation despite a falling enrollment, Iron River has shown a sharp decrease. This is probably due to a gradual change over from a system of privately-owned busses operating on contract to a situation wherein the district owns most of its transportation equipment and contracts for much of its operation and maintenance. It is difficult to draw exact parallels between school district expenses for transportation because of differing conditions. All districts show considerable increase in transportation expense in 1946 over 1945. This is due to increased costs of materials, labor, drivers' wages.

Per capita expenditures for auxiliary and coordinate affairs should be considered in the light of the fact that not all children in school are affected by them to the same extent that expenditures for other items affect them. Children living near the school do not cause transportation expense, nor, in most cases, school lunch deficit expense. Other things being equal, the district with the largest percentage of its children walking

to school will show the lowest per capita expense for auxiliary and coordinate affairs. This does not, necessarily, portray the relative efficiency of transportation systems. Per capita costs for the above item are shown in Table XXXIV.



TABLE XXXIV

PER CAPITA EXPENDITURES FOR AUXILIARY AND COORDINATE AFFAIRS IN  
ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	CRYSTAL		HEMATITE	IRON		MANSFIELD	MASTODON	STAMBAUGH	COUNTY	
	BATES	FALLS		RIVER	TOTAL *					
1933	\$10.43	\$5.26	\$11.68	\$6.62	\$53.79	\$8.76	\$3.79		\$6.09	
1934	10.75	3.70	10.14	6.58	38.89	7.21	4.08		5.80	
1935	20.75	5.67	11.62	7.41	32.87	9.35	6.68		8.16	
1936	11.71	8.06	11.34	9.90	61.14	8.65	8.24		9.40	
1937	13.28	8.75	10.04	10.55	40.26	11.60	5.93		9.13	
1938	14.53	9.56	10.18	11.76	34.07	14.33	7.28		10.27	
1939	15.50	8.91	9.46	11.34	45.36	13.91	7.64		10.18	
1940	19.81	6.94	7.14	10.27	86.61	12.43	8.23		9.52	
1941	17.11	7.78	6.58	10.50	48.48	13.48	8.11		9.77	
1942	17.37	9.16	10.15	11.64	93.24	15.27	9.32		11.21	
1943	20.30	8.79	8.73	10.89	86.79	19.27	8.57		10.94	
1944	22.88	10.12	11.36	11.27	151.64	19.86	11.43		12.74	
1945	21.71	9.42	9.11	10.56	219.22	21.13	11.00		12.16	
1946	24.58	9.85	11.88	10.99	123.13	23.20	12.03		12.97	

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, Bates Township Schools spent \$10.43 per year-end membership child for such auxiliary and coordinate activities as transportation, school lunch, school recreation, and school health. In 1946, the per capita cost for same items was \$24.58. The remainder of the table should be read in like manner for the other districts.

Attention is called to the figures for Hematite Township Schools for 1933 and 1946. Enrollment declines occurred in such a manner that one bus is able to provide transportation for all the children of the township. This has caused a decline in expenditures at about the same ratio as enrollment declines. The distance to be covered by busses in Hematite is less than in some other districts and the relatively low transportation costs of this district as compared with the other smaller schools is partially explained thereby. Bates Township is almost entirely rural, a factor which partly accounts for the high per capita costs shown for Bates in Table XXXIV.

The statistics for Mansfield Township likewise need interpretation. Costs are very high for this district for two reasons, namely, small population in proportion to the area of the district, and very small enrollment in the one-room school maintained in the district. Children are transported to Crystal Falls after the sixth grade. This makes for high transportation costs and a small membership within the district to which costs may be apportioned on a per capita basis. Other auxiliary and coordinate costs are disproportionately high for similar reasons, notably school lunch deficits.

The next item of school operating expense to be examined is operation of school plant. This includes wages of janitors and other maintenance employes, fuel, utilities, janitor supplies and miscellaneous items. Table XXXV summarizes operating expenses for all Iron County school districts from 1933 through 1946.

TABLE XXV

## TOTAL EXPENDED FOR OPERATION OF SCHOOL PLANT IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$3,506	\$16,567	\$4,626	\$13,330	\$536	\$4,315	\$14,001	\$56,881
1934	3,119	14,073	4,029	15,183	518	4,333	15,497	56,752
1935	3,502	17,439	4,546	16,485	385	3,864	16,581	62,802
1936	3,648	8,571	5,855	17,709	748	4,186	19,663	60,380
1937	4,055	12,292	5,595	19,200	465	3,863	19,900	65,370
1938	4,219	12,959	4,346	19,449	442	4,451	20,781	66,647
1939	3,926	12,672	4,073	19,465	359	4,170	18,766	63,431
1940	3,796	11,491	3,720	17,852	287	4,604	18,120	59,870
1941	3,867	12,696	3,380	21,586	340	4,817	18,193	64,879
1942	4,519	14,730	3,351	17,563	372	6,071	22,077	68,683
1943	3,926	12,819	3,853	20,929	531	5,649	19,434	67,141
1944	3,573	14,581	4,267	19,123	718	5,971	24,648	72,881
1945	3,652	15,118	4,613	19,852	626	6,934	21,000	71,795
1946	4,343	13,951	4,229	23,449	476	5,413	24,579	76,440

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, Bates Township Schools spent \$3,506 to operate their school plant. During the same school year, Crystal Falls spent \$16,567 for similar purposes and the expenditures for the county as a whole totalled \$56,881. All figures to the nearest dollar. Read the remainder of the table in like manner.

It will be recalled that, with the exception of general administrative expense (Table XXI, page 67), all items in the school budget experienced a sharp decline between 1933 and 1934. There was no such decline in the expense of operating the school plant in Iron County schools. Depression or no depression, buildings must be heated and cleaned. Salaries and wages for janitors and cleaners declined somewhat, but not as drastically as salaries of instructors.

Examination of Table XXXV reveals some rather sharp changes from year to year for some schools. Inquiry concerning the explanation of these changes reveals that supplies are often purchased advantageously in quantities larger than are needed for a single year. Also, variations in time of payment of invoices occasionally have caused preceeding years' expenses to show up in the following years' financial reports.

It is interesting to note that the largest schools, Iron River and Stambaugh, show the greatest increase in school plant operation expense, each increasing almost 76 per cent between 1933 and 1946. Analysis reveals that most of the increase is in janitorial salaries, which increased in Stambaugh from \$6,447.25 in 1933 to \$14,481.84 in 1946, thus emphasizing the inflationary trend of recent years. Another factor to be considered in interpreting Table XXXV is the decline in the number of buildings operated. Table VII, page 28 listed 36 buildings in operation

throughout the county in 1933 compared with only 16 buildings in 1946. Most buildings closed, however, were small outlying schools.

Table XXXVI shows school plant operation costs on a per capita basis and should be studied together with Table XXXV.

TABLE XXXVI  
PER CAPITA EXPENDITURES FOR OPERATION OF SCHOOL PLANT IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$ 9.06	\$13.49	\$13.89	\$ 7.36	\$18.48	\$12.09	\$ 7.42	\$ 9.07
1934	8.34	11.78	14.04	8.73	17.27	12.31	8.60	9.82
1935	9.67	16.08	16.93	9.63	12.83	12.27	9.39	11.34
1936	10.48	8.08	20.54	10.69	26.71	12.24	11.46	11.13
1937	11.92	11.67	23.22	11.88	16.61	12.19	12.22	12.51
1938	12.75	12.96	18.89	12.88	14.26	14.40	12.59	13.17
1939	13.04	12.70	19.77	12.77	12.82	14.18	11.84	12.85
1940	13.85	11.68	15.90	12.14	12.48	16.33	11.81	12.47
1941	14.88	13.16	14.32	15.67	12.59	18.11	12.80	14.29
1942	18.59	16.72	17.45	13.05	21.88	23.81	16.35	16.12
1943	17.15	15.44	23.07	16.75	37.93	25.79	14.95	16.84
1944	17.34	18.11	27.89	15.91	51.28	27.39	20.92	19.30
1945	18.26	19.81	29.95	17.32	44.71	31.38	18.21	19.69
1946	21.93	18.09	27.82	19.82	31.73	25.18	20.99	20.62

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, Bates Township Schools spent \$9.06 per year-end-membership child for operation of the school plant. Crystal Falls spent \$13.49 for the same purpose in the same year, while the over-all county average was \$9.07. Read the remainder of the table in like manner.

.....

.....

.....

.....

.....

.....

.....

.....

Declining enrollments have had similar effects upon per capita costs of school plant operation as they have had upon other items of the school budget. The highest rate of per capita increase was in Stambaugh and the lowest in Crystal Falls, 183 and 34 per cent respectively.

The relationship between the size of the school and the per capita cost of school operation is not as pronounced as in some areas of school expense, although it is present to a limited extent. The costs for Mansfield, for instance, do not vary as widely as in instruction, administration, and auxiliary affairs. Increasing prices of janitorial supplies and fuel are reflected in the per capita costs shown for most districts since 1944.

The effect of enrollment changes upon per capita costs is strikingly evident from an analysis of the figures for Hematite from 1938 to 1941, inclusive. In 1938, the year-end enrollment was 230 and the per capita cost for operation was \$18.89. In 1939, enrollment was 206, total operation costs declined nearly \$300, and per capita costs increased to \$19.77. The year 1940 showed a further decline of about \$300 in total cost, an enrollment increase to 236, but a decline in per capita cost to \$15.90. Total costs declined another \$300 in 1941, enrollment increased to 236, and per capita costs declined to \$14.32.

Another item of expense which must be considered in a study of a county's school finances is fixed costs. Fixed costs



in Iron County schools are almost completely limited to insurance on buildings. Tables XXXVII and XXXVIII picture the absolute and the per capita costs for this item of the budget.

TABLE XXXVII

## TOTAL EXPENDITURES FOR FIXED CHARGES IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	CRYSTAL FALLS			IRON RIVER			MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*	
	BATES	HEMATITE	FALLS	CRYSTAL FALLS	HEMATITE	IRON RIVER					
1933	\$2,180	\$	820	\$	180	\$4,359	\$1,314	\$	575	\$	9,804
1934	685		798		1,625	523	140		843		5,385
1935	402		4,271		1,581	1,723	93		7,892		16,405
1936	1,491		420		1,277	4,232	94		3,068		11,034
1937	568		271		239	2,359	31		2,179		5,944
1938	726		2,715		386	1,913	190		3,317		12,317
1939	838		1,267		261	1,986	255		3,288		8,264
1940	792		1,213		685	2,021	129		1,447		6,645
1941	801		1,049		810	1,178	117		3,251		14,454
1942	867		1,324		720	2,096	158		3,687		9,196
1943	715		1,828		730	1,491	106		1,338		8,231
1944	437		1,179		769	1,961	156		2,523		8,012
1945	708		1,022		720	1,951	206		4,540		9,500
1946	212		1,139		713	412	212		3,594		7,662

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In the school year ending June, 1933, Bates Township Schools spent \$2,180 for property insurance, Crystal Falls spent \$820, and the county as a whole spent \$9,804 for insurance and other fixed charges. Read the remainder of the table in like manner.

TABLE XXXVIII  
PER CAPITA EXPENDITURES FOR FIXED CHARGES IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$ 5.63	\$ .67	\$ .54	\$2.41	\$12.96	\$3.68	\$ .30	\$1.56
1934	1.83	.67	5.66	.30	17.43	1.10	.47	.93
1935	1.11	3.94	5.90	1.01	3.33	1.41	4.47	2.96
1936	4.28	.39	4.71	2.55	3.36	1.32	1.79	2.03
1937	1.67	.26	.99	1.46	1.11	.94	1.34	1.14
1938	2.19	2.72	1.68	1.27	6.13	9.93	2.01	2.43
1939	2.78	1.27	1.27	1.30	9.11	1.26	2.07	1.67
1940	2.89	1.23	2.93	1.37	5.61	1.27	.94	1.38
1941	3.08	1.09	3.43	.85	4.33	.93	2.29	3.18
1942	3.57	1.50	3.75	1.56	9.29	1.35	2.78	2.16
1943	3.12	2.20	4.37	1.19	7.57	9.24	1.03	2.06
1944	2.12	1.46	5.03	1.63	11.14	4.53	2.14	2.12
1945	3.54	1.34	4.67	1.70	22.89	1.60	3.94	2.61
1946	1.07	1.47	4.69	.35	14.13	6.42	3.07	2.06

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, the Bates Township District spent \$5.63 per year-end membership child for fixed expenditures, mostly insurance. In 1946 the expenditures per child were \$1.07. Read the remainder of the table in like manner.

1

.....

1

.....

1

.....

1

.....

1

.....

1

.....

1

.....

1

.....

It will be noted that expenditures for fixed charges vary sharply from year to year for the several school districts of Iron County. This is due to the varying dates on which property insurance premiums fall due. Totals for this item, as well as per capita figures, have little meaning in any one year and must be considered over the entire period of years covered in the table.

As might be expected, larger school districts also enjoy an advantage in per capita costs for fixed items. Total expenditures for fixed charges decreased \$2,142, or 29 per cent, for the county as a whole, while per capita expenditures, because of declining enrollment, increased fifty cents per child, or 32 per cent.

An examination of insurance records for all of the schools reveals that practically no damages have been received by school districts during the period under study because no compensable fires have occurred. A few dollars has been paid on windstorm insurance, but only a tiny fraction of the amount paid in premiums. Informal conversation with officials of the State Department of Public Instruction suggests that claims paid by insurance companies to Michigan school districts generally are a very minor percentage of premiums paid.

The final item of expenditures in the operating budget of the school districts of Iron County, exclusive of debt service and capital outlay, is maintenance. Tables XXXIX and XL present the statistics on maintenance expense for all Iron County schools for the years 1933 through 1946. These two tables, likewise, should be studied and interpreted together.

TABLE XXXIX

## TOTAL EXPENDITURES FOR MAINTENANCE IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$1,198	\$2,766	\$ 919	\$ 729	\$ 208	\$ 785	\$1,166	\$ 7,771
1934	931	1,586	118	2,592	70	310	1,840	7,447
1935	405	877	232	2,778	276	824	4,638	10,030
1936	686	660	905	2,856	130	1,297	6,805	13,339
1937	1,398	3,592	1,665	2,607	348	890	3,096	13,596
1938	1,742	2,897	907	5,354	375	815	2,618	14,708
1939	3,242	613	752	4,551	351	455	2,534	12,498
1940	1,465	456	488	8,544	103	1,248	1,590	13,894
1941	1,936	812	410	6,039	3,926	877	2,344	16,344
1942	2,295	1,038	627	2,052	284	1,195	3,280	10,771
1943	1,905	833	167	2,664	338	1,184	3,132	10,223
1944	1,151	1,991	897	6,484	1,171	680	2,767	15,141
1945	201	2,702	1,093	5,019	53	1,094	4,819	14,981
1946	2,468	7,558	194	7,121	236	2,708	4,261	24,545

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, Bates Township Schools spent \$1,198 for maintenance of school property, Crystal Falls spent \$2,766, and the expenditures for the county as a whole were \$7,771. Read the remainder of the table in like manner.

1. The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

and to the study of the function  $F(x)$  defined by the equation

$$F(x) = \int_0^x \frac{1}{1+t^2} dt$$

and to the study of the function  $G(x)$  defined by the equation

$$G(x) = \int_0^x \frac{1}{1+t^2} dt$$

and to the study of the function  $H(x)$  defined by the equation

$$H(x) = \int_0^x \frac{1}{1+t^2} dt$$

and to the study of the function  $I(x)$  defined by the equation

$$I(x) = \int_0^x \frac{1}{1+t^2} dt$$

TABLE XL

## PER CAPITA EXPENDITURES FOR MAINTENANCE IN ALL IRON COUNTY SCHOOLS FROM 1933 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1933	\$3.09	\$2.25	\$2.76	\$ .40	\$ 7.17	\$2.20	\$ .62	\$1.24
1934	2.49	1.33	.41	1.49	2.33	.88	1.02	1.29
1935	1.12	.81	.86	1.62	9.20	2.62	1.04	1.81
1936	1.97	.62	3.34	1.72	4.64	3.79	4.18	2.46
1937	4.11	3.41	6.91	1.61	12.43	2.81	1.90	2.61
1938	5.26	2.90	3.94	3.55	12.10	2.64	1.58	2.51
1939	10.77	.61	3.65	3.00	12.54	1.55	1.60	2.53
1940	5.34	.47	2.09	5.80	4.48	4.43	1.04	2.91
1941	7.06	.84	1.74	4.38	145.41	3.30	1.65	3.60
1942	9.44	1.18	3.26	1.53	16.71	4.69	2.47	2.53
1943	8.32	1.00	1.00	2.13	24.14	5.41	2.41	2.56
1944	5.59	2.47	5.86	5.39	83.64	3.12	2.35	4.01
1945	1.00	3.54	7.10	4.38	5.89	4.95	4.18	4.11
1946	12.46	9.80	1.28	6.02	15.73	12.64	3.64	6.62

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1933, Bates Township Schools spent an average of \$3.09 per year-end membership child for maintenance of buildings, grounds, and equipment; Crystal Falls spent \$2.25 per year-end membership child in the same year for the same purposes, while the average expenditure for the county as a whole was \$1.24. Read the remainder of the table in like manner.



.....

.....

.....

.....

.....

.....

.....

.....

Amounts spent by the various school districts for maintenance have varied greatly from year to year. On the whole, however, there has been a decided increase during the years listed. The increase occurs in spite of many less school buildings now maintained.

The figures for Mansfield in 1941 and 1944 invite special question. Examination of original records indicates that items properly belonging to capital outlay were improperly reported under maintenance in those years. Similar analysis of original records of other districts reveals similar conditions within those districts.

Per capita expenditures for maintenance vary even more sharply than the total amounts spent in dollars. The increase for the county as a whole has been over 400 per cent per capita since 1933, while the total dollar increase has been only slightly over 200 per cent. This, again, is due to declining enrollment and the inability of school districts to cut maintenance costs proportionately.

The relatively low costs for maintenance during the early years of the Depression may possibly be explained by two factors, namely, buildings were in good condition when the Depression occurred, and much maintenance was financed by the federal government as a part of its work-relief program. Higher costs of material and labor are factors in the sharp increases recorded since 1944.

All items of expenditure in the operating budget have been examined. Before considering the figures for capital outlay a summary of operating expenditures should be presented. This is done for all Iron County schools in Tables XLI and XLII which should be studied together.

TABLE XLI

## TOTAL OPERATING EXPENDITURES IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	CRYSTAL			IRON		MASTODON	STAMBAUGH	COUNTY TOTAL*
	BATES	FALLS	HEMATITE	RIVER	MANSFIELD			
1926	\$44,862	\$153,150	\$44,899	\$157,942	\$ 7,087	\$40,677	\$175,943	\$624,560
1927	55,877	156,576	43,357	178,336	9,825	41,444	176,242	661,657
1928	42,305	156,089	48,883	201,315	10,781	36,574	186,456	682,403
1929	41,800	167,813	42,310	215,359	11,658	41,863	199,981	720,784
1930	45,837	148,460	47,260	190,609	13,252	48,152	206,844	700,414
1931	48,239	145,659	49,400	184,946	9,264	49,712	199,753	686,973
1932	48,561	139,485	41,423	163,203	8,778	41,343	185,870	628,663
1933	31,777	104,975	33,494	96,137	5,869	30,564	93,634	396,450
1934	26,290	74,395	21,229	90,731	4,691	22,633	85,222	325,191
1935	34,600	82,347	23,810	102,470	3,160	22,014	105,700	374,101
1936	28,457	78,953	29,031	123,883	5,548	26,279	126,966	419,117
1937	32,827	82,887	26,500	130,579	4,068	25,946	125,830	428,637
1938	35,707	100,913	25,218	143,423	4,202	30,926	138,904	479,293
1939	35,463	87,462	23,391	141,314	4,745	29,731	122,247	444,352
1940	34,479	76,884	22,284	136,512	4,140	30,210	122,454	426,963
1941	34,389	78,609	21,973	132,119	3,455	29,660	124,385	424,590
1942	34,641	84,471	22,118	127,760	4,233	33,354	131,423	438,000
1943	35,423	83,976	20,592	129,513	4,064	36,325	121,847	431,740
1944	35,661	98,521	21,885	133,436	6,831	35,129	137,737	469,200
1945	31,835	97,785	22,641	134,449	6,278	37,436	139,083	469,507
1946	37,323	111,348	25,241	141,337	6,391	41,750	160,736	524,126

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926, the total operating expenditures of the Bates Township Schools was \$44,862. Crystal Falls spent \$153,150 for the same purposes during the same year, and the operating costs of the schools as a whole totaled \$624,560 in that year. Read the remainder of the table in like manner.

the same time, the  $\beta$  phase is not stable at low temperatures, and the  $\alpha$  phase is the stable phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

The  $\beta$  phase is a high-temperature phase, and the  $\alpha$  phase is a low-temperature phase.

TABLE XLII

PER CAPITA OPERATING EXPENDITURES IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	CRYSTAL			IRON		MANSFIELD	MASTODON	STAMBAUGH	COUNTY	
	BATES	FALLS	HEMATITE	RIVER	TOTAL*					
1926	\$135.54	\$ 93.61	\$114.59	\$ 85.24	\$154.06	\$ 92.45	\$ 86.46	\$ 91.52		
1927	168.81	95.71	122.82	98.20	196.50	106.59	88.15	100.81		
1928	130.98	98.43	128.30	111.41	229.38	97.27	95.32	105.37		
1929	115.46	112.10	113.13	113.94	233.16	108.45	92.97	108.55		
1930	121.58	105.67	138.19	96.66	378.63	127.72	100.02	107.94		
1931	125.95	107.89	142.77	91.47	272.47	131.86	98.30	104.97		
1932	124.52	107.13	111.05	82.56	258.18	111.44	93.31	97.62		
1933	82.11	85.49	100.58	53.07	202.38	85.61	49.54	63.20		
1934	70.29	62.32	73.96	52.20	156.37	71.85	47.29	56.29		
1935	95.58	75.89	88.86	59.89	105.33	69.89	59.89	67.58		
1936	81.77	74.41	107.12	74.76	198.14	76.84	73.99	77.29		
1937	96.55	78.71	109.96	80.80	145.29	81.85	77.24	82.05		
1938	107.88	100.91	109.64	94.98	135.55	100.09	80.42	94.70		
1939	117.82	87.64	113.55	92.73	169.46	101.12	77.13	90.00		
1940	125.84	78.13	95.23	92.80	180.00	107.13	79.83	88.91		
1941	132.27	81.46	93.11	95.95	127.96	111.50	87.53	93.48		
1942	142.56	95.88	115.20	94.92	249.00	130.80	99.11	102.82		
1943	154.69	101.18	123.31	103.53	290.29	165.87	93.73	108.29		
1944	173.11	122.39	143.04	111.01	487.93	161.14	116.93	124.26		
1945	159.18	128.16	147.02	117.32	697.56	169.35	121.49	128.77		
1946	188.50	144.42	166.06	119.47	426.07	194.19	137.26	141.39		

\*Source: Annual reports on file in the office of the Commissioner of Schools.

Read the table as follows: In 1926 the average cost of operation of the Bates Township Schools per year-end membership child, not including capital outlay or debt service, was \$135.54. The comparable figure for Crystal Falls was \$93.61, and for the county as a whole, \$91.52. Read the remainder of the table in like manner.

Total ordinary operating costs of Iron County schools have declined markedly during the twenty years depicted in Tables XLI and XLII. The percentage declines from the year of highest expenditure to the year of lowest cost range from 53 per cent in Crystal Falls to 76 per cent in Mansfield, with all other districts declining between 54 per cent and 59 per cent. In all districts, except Mansfield, the year of lowest cost was 1934, the first effective year of the Tax Limitation Act. All districts have experienced decided increases in operating costs since 1934, but total costs for all schools were still 27 per cent below the highest year, 1929.

Because of declining enrollment, the per capita costs of current operation have not changed in the same proportion as absolute costs. In spite of 27 per cent less total operating expense in 1946 as compared with 1929, per capita costs in all districts, except Mansfield, were higher in 1946 than in any previous year. Mansfield's peak per capita cost occurred in 1945 when \$695.56 per enrolled child was spent for operation. It must be remembered, however, that this figure is somewhat misleading because some of the expense was incurred in sending upper grade children to Crystal Falls and these children were not included when figuring per capita costs. Tables XLI and XLII clearly indicate a picture of rapidly increasing school costs.

Administrators constantly complain of inadequate capital investment because of the pressure of current operating expense. Tables XLIII and XLIV portray capital outlay statistics from 1926 to 1946. They should likewise be studied together.

TABLE XLIII

## TOTAL EXPENDITURES FOR CAPITAL OUTLAY IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	CRYSTAL			IRON			MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
	BATES	FALLS	HEMATITE	RIVER						
1926	\$1,400	\$ 125	\$	\$ 4,719			\$ 1,646	\$21,121		\$ 29,011
1927	644			132,722		2,454				135,820
1928	605		3,320	197,777		4,546				206,248
1929	161		4,749	8,867				265		14,042
1930	4,586		4,794	24,628		665	51,984			86,657
1931	694		5,909			639		301		7,543
1932			5,934			354		4,824		11,112
1933	518	2,353	1,629	1,905			1,280	5		7,690
1934	683	959	8	792			157			2,599
1935	27	579	2,561	666		6	1,090			4,929
1936	193	5	4,377	254			2,236	139		7,204
1937	3,970	4,866	878	604			342	19,498		30,158
1938	1,182	662	724	225		1,119	2,474	33		6,419
1939	962		238	460			1,268	60		2,988
1940	1,687	4,211	2,081	390			1,349	571		10,289
1941	3,223		1,000	3,235			1,506	2,329		11,764
1942	684	2,117	1,021	2,039		471	1,428	1,659		9,574
1943	335			1,153		626	238	336		2,062
1944		203		38		1,045		86		1,381
1945		1,823		49		1,301	756	508		4,437
1946	4,770	2,715	215	804		520	7,801	19,345		36,170

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926 Bates Schools spent \$1,400 on capital improvements, Crystal Falls spent \$125, and the county as a whole spent \$29,011. Blank spaces indicate no capital expenditures during that year. Read the remainder of the table in like manner.

TABLE XLIV

PER CAPITA EXPENDITURES FOR CAPITAL OUTLAY IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1926	\$ 4.23	\$ .10	\$	\$ 2.55	\$	\$ 3.74	\$ 10.38	\$ 4.25
1927	1.95			73.09	49.08			20.69
1928	1.87		8.71	109.45	96.72			31.85
1929	.44		12.70	4.64			.12	2.11
1930	12.16		14.02	12.49		133.29		13.35
1931	1.81		17.08		18.79		.15	1.15
1932			15.91		10.41		2.42	1.72
1933	1.34	1.92	4.89	1.05		3.59	.01	1.23
1934	1.83	.80	.03	.46		.45		.45
1935	.07	.53	9.56	.38	.20	3.46		.89
1936	.55	.01	16.15	.15		6.54	.09	1.33
1937	11.68	4.62	3.64	.37		1.08	11.98	5.77
1938	3.57	.66	3.14	.15	36.10	8.01	.02	1.27
1939	3.19		1.16	.30		4.31	.04	.60
1940	6.16	4.38	8.89	.27		4.78	.37	2.15
1941	12.39		4.24	2.35	17.44	5.66	1.64	2.60
1942	2.81	2.40	5.31	1.51	36.71	5.54	1.25	2.25
1943	1.46			.92		1.09	.26	.52
1944	.04	.25		.03	74.64		.07	.36
1945		2.39		.04	144.56	3.42	.44	1.22
1946	24.09	3.52	1.41	.68	34.67	36.29	16.52	9.76

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926, Bates Schools spent an average of \$4.23 per year-end membership child for capital improvements, including transportation equipment. Iron River expended \$2.55, Stambaugh \$10.38, and the county as a whole spent \$4.25 for similar capital improvements. Read the remainder of the table in like manner.



The abnormal expenditures for 1927 through 1930 for Iron River represent the cost of building and equipping their new high school. In 1930, Mastodon built an addition to their school at an approximate cost of \$50,000. In 1937, Stambaugh built a new bus garage with salvaged brick and WPA labor, obtaining for \$19,000 a building worth much more. The marked increase in capital outlay shown for 1946 is caused by major alterations to heating plants in Stambaugh and in Mastodon, projects long planned but postponed during war years because of material and labor shortages.

The purchase of new buses accounts for most of the capital outlay otherwise recorded. Very, very little has been spent for new instructional equipment.

Two factors partially explain the very low capital outlay for the three years prior to 1946, namely, inability to secure materials, and pressure to spend every dollar possible in higher wages and salaries for employes.

Per capita costs for capital outlay were affected by declining enrollments in a similar degree to the effect on other items of expenditure, rising more rapidly than absolute costs and diminishing less rapidly when total costs declined from the preceeding year.

The final item of revenue expenditures to consider is the payment of principal and interest on school debt. Table XVII, page 55, lists the amounts paid from local tax levies for debt service from 1926 to 1946. Table XLV shows the per capita expenditures for debt service for the same period.

TABLE XLV

PER CAPITA EXPENDITURES FOR DEBT SERVICE IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1926	\$31.60	\$ 9.21	\$42.53	\$ 3.60		\$18.03	\$11.46	\$11.88
1927	22.03	9.48	46.02	.02		15.64	10.82	10.17
1928	21.56	9.46	41.38	6.67		14.36	10.52	11.72
1929	25.14	6.35	41.01	15.48		31.41	9.19	14.32
1930	21.91	33.45	43.53	14.47		7.07	6.79	17.80
1931	22.58	5.18	41.78	12.77		17.91	6.63	11.94
1932	20.18	5.38	37.57	13.71		15.05	4.02	10.81
1933		5.63	32.29	3.15		15.26	3.94	5.78
1934		2.17	10.64	18.26		54.31	4.36	11.14
1935		5.99	65.97	25.39		2.38	2.95	13.29
1936		11.18	34.61	14.64		12.94		9.21
1937		5.72	37.67	14.57		13.49		8.22
1938		5.80	38.17	15.12		24.76		8.91
1939		.42	41.16	14.52		13.26		7.07
1940		1.26	13.59	14.56		13.30		6.16
1941			25.53	14.96		12.41		6.71
1942		2.86	35.56	14.85		14.38		7.66
1943			75.75	15.41				8.01
1944			23.66	15.44				7.00
1945		2.72	144.53	15.58				11.57
1946			4.44	14.49				4.85

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926, debt service required \$31.60 for each child in year-end membership in Bates Township Schools. \$9.21 was required in Crystal Falls for similar debt service, and the average debt service for all children in the county as a whole was \$11.88. Read the remainder of the table in like manner.

It is clear from Table XLV that the burden of debt is almost removed from Iron County schools, in fact, is completely removed from five of the seven school districts. Declining enrollments have kept per capita costs higher than they would otherwise have been. A complete discussion of the debt situation has been given earlier in this study, (page 56) and will not be repeated here. Table XLV merely rounds out the picture of per capita expense and is included for this reason.

A final summation of revenue expenditures--operating, capital outlay, and debt service--is provided in Tables XLVI and XLVII. These tables depict the total cost of schools and the per capita cost for the years 1926 through 1946.

TABLE XLVI

## TOTAL REVENUE EXPENDITURES FOR ALL PURPOSES IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	CRYSTAL			IRON		MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
	BATES	FALLS	HEMATITE	RIVER					
1926	\$56,721	\$169,275	\$61,569	\$169,334	\$ 7,087	\$50,256	\$220,389	\$734,631	
1927	63,813	172,076	59,602	311,088	12,279	47,527	197,860	864,245	
1928	49,975	171,089	67,990	411,155	15,327	41,974	207,037	964,547	
1929	51,061	177,313	62,395	253,467	11,658	53,988	220,014	829,905	
1930	58,683	195,460	66,943	243,675	13,917	102,893	220,905	902,576	
1931	57,573	152,659	69,763	212,771	9,903	56,464	213,529	772,672	
1932	56,431	146,485	61,374	190,316	9,132	46,928	198,694	709,360	
1933	32,295	114,245	45,877	103,742	5,869	37,293	101,077	440,398	
1934	26,973	77,940	24,290	123,267	4,691	41,908	93,081	392,150	
1935	34,627	89,428	44,051	146,601	3,166	23,854	120,909	452,636	
1936	28,650	90,820	42,788	148,400	5,548	32,940	127,105	426,321	
1937	36,797	93,781	36,458	154,733	4,068	30,563	145,328	501,728	
1938	36,889	107,378	34,722	166,486	5,321	41,050	138,937	530,783	
1939	36,425	87,879	32,109	163,899	4,745	34,899	122,307	482,262	
1940	36,166	82,331	27,545	161,160	4,140	35,309	123,025	466,831	
1941	37,612	78,609	28,997	156,054	3,916	34,916	126,714	466,828	
1942	35,325	89,108	29,966	149,787	4,859	38,084	133,082	480,209	
1943	35,758	83,976	33,243	149,941	4,064	36,563	122,183	465,728	
1944	35,670	98,724	25,505	152,037	7,876	38,279	137,823	495,914	
1945	31,835	101,683	44,898	152,348	7,579	38,192	139,591	516,126	
1946	42,093	114,063	26,131	159,279	6,911	49,551	180,081	578,109	

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926, the total cost of operation of the Bates Township Schools, including debt service and capital outlay, was \$56,721. In the same year Crystal Falls spent \$169,275 and the county as a whole spent \$734,631 for the same purposes. Read the remainder of the table in like manner.

TABLE XLVII

PER CAPITA REVENUE EXPENDITURES FOR ALL PURPOSES IN ALL IRON COUNTY SCHOOLS FROM 1926 TO 1946

YEAR	BATES	CRYSTAL FALLS	HEMATITE	IRON RIVER	MANSFIELD	MASTODON	STAMBAUGH	COUNTY TOTAL*
1926	\$171.36	\$ 97.48	\$157.04	\$ 91.39	\$154.02	\$114.22	\$108.30	\$107.65
1927	193.79	105.19	168.84	171.31	245.58	122.20	99.47	131.68
1928	154.41	107.88	178.39	227.53	326.10	111.63	105.84	148.94
1929	141.05	118.60	164.84	132.07	223.16	139.86	102.28	124.98
1930	155.65	139.12	195.61	123.62	378.63	263.83	106.81	139.09
1931	150.34	113.07	172.75	104.24	291.26	149.77	104.93	117.92
1932	144.70	112.51	164.53	96.22	268.59	126.49	99.75	110.15
1933	83.45	93.03	138.36	57.29	202.38	104.46	53.65	70.21
1934	72.12	65.28	84.63	70.92	156.37	119.06	51.65	67.88
1935	95.65	82.41	164.37	85.66	105.53	89.27	62.84	81.76
1936	82.32	85.60	157.88	98.55	198.14	95.35	74.07	87.82
1937	106.23	89.06	151.27	95.74	145.28	112.13	89.22	96.04
1938	111.45	107.37	150.95	110.25	171.65	128.99	84.20	104.88
1939	121.01	88.06	155.87	107.55	169.46	120.32	77.17	97.67
1940	131.99	83.77	117.71	107.63	180.00	123.26	80.20	96.39
1941	144.66	81.46	112.31	113.26	145.40	129.57	89.17	102.79
1942	145.37	101.14	156.06	111.28	285.71	136.34	100.36	113.08
1943	156.15	101.18	199.06	119.86	290.29	181.34	93.99	116.90
1944	173.15	122.03	166.70	126.48	562.57	161.14	116.99	131.67
1945	159.18	130.54	261.85	126.64	842.12	172.81	121.07	141.56
1946	212.59	147.94	171.91	134.64	460.74	230.47	153.78	155.94

\*Source: Annual reports filed in the office of the Commissioner of Schools.

Read the table as follows: In 1926, the average cost of educating a child in Bates Township Schools, based on year-end membership and including capital improvements and debt service payments, was \$171.36. The comparable cost for Crystal Falls in the same year was \$97.48 and for the county as a whole \$107.65. Read the remainder of the table in like manner.

.....

.....

.....

.....

.....

.....

.....

.....

With the single exception of Iron River, per capita costs of educating the children of Iron County's seven school districts were higher in 1946 than in any previous year covered by the study. If allowance is made for the fact that the abnormally high cost figures shown for Iron River in 1927 and 1928 are due to the inclusion of the cost of building and equipping a new high school, no exception would exist. Total dollar costs of schooling were still far below pre-depression levels, however, although these costs show sharp increases since 1943.

It is clear that some items of expense are duplicated over the years listed in Tables XLVI and XLVII. Iron River and Mastodon floated bond issues for their building projects. Large costs are shown for the years when these projects were under construction. Since the bonds have been practically retired, and since the totals included payments of principal on bonds, duplication does occur. All capital improvements in other districts, and all improvements other than those mentioned for Iron River and Mastodon, have been paid for out of current revenues.

The preceeding section has reviewed in detail the costs of operating Iron County schools under the present system of organization. Chapter III will explore the financial aspects of an hypothetical County Unit system with one board of education replacing the existing seven boards of education. No attempt will be made to discuss aspects of such a proposed reorganization other than from the financial point of view.

CHAPTER III  
FINANCIAL ASPECTS OF A COUNTY UNIT SYSTEM OF SCHOOL  
ORGANIZATION FOR IRON COUNTY, MICHIGAN

A. POTENTIAL INCOME

Chapter II presented a survey of school finances in Iron County for a twenty-one year period ending in June, 1946. A picture of declining income due to lower property valuations and diminishing school population was painted. Increasing costs in recent years due to inflationary factors and sincere determination of boards of education to raise teachers' salaries toward a more equitable level were also shown.

It was observed that increased income from state aid has not completely and adequately offset losses in revenue, although real improvement has been evident in recent years.

These are the essential existing facts. It will be the purpose of Chapter III to explore the possibilities of increasing school revenues and reducing school expense where unnecessary duplication exists, so that present, as well as any increased income, can be directed into the channels of instruction. It is generally agreed that as large a part of school revenues as possible should be devoted to instruction. It is, of course, axiomatic that instruction is the chief, if not the only purpose and justification of any school organization. All other phases of the work are simply facilitating factors. Administration must



provide the most and the best instruction possible with the available resources.

The existing organization of Iron County into only seven school districts places the county in a favorable position in many respects in the field of school district organization. There is, however, nothing sacred about seven school districts. If combining the existing seven districts into one centrally administered county unit will provide better educational opportunities for boys and girls, it is the responsibility of administration to work toward such a re-organization. If the existing scheme provides superior educational opportunities, it should remain.

It is beyond the scope of this study to examine all the pros and cons of the problem of district re-organization. This investigation is concerned largely with the financial aspects of the problem. This chapter will attempt, therefore, to determine what the income and expenditures would be under existing conditions if a county unit were to replace the present organization of school districts in Iron County.

By its very nature the problem presents more difficulties than a review of what has taken place. The judgment of the investigator is a big factor in the reliability of the figures presented. This is more especially true in the field of expenditures than in the field of income, since income can be ascertained rather accurately by applying statutory rules.

Table XLVIII presents an estimate of income for a county unit under existing state laws and is limited to state aid.

TABLE XLVIII

ESTIMATE OF STATE AID FOR PROPOSED IRON COUNTY SCHOOL DISTRICT  
 COMPARED WITH ACTUAL INCOME OF ALL IRON COUNTY  
 SCHOOL DISTRICTS FOR 1945-46

ITEM	SEVEN DISTRICT ORGANIZATION	COUNTY UNIT ORGANIZATION
EQUALIZED PROPERTY VALUATION, 1944	\$ 26,000,000	\$ 26,000,000
SCHOOL CENSUS, 1944	5,073	5,073
AVERAGE MEMBERSHIP, 1945		
a) Elementary	1,967	1,967
b) Secondary	1,684	1,684
GROSS ALLOWANCE		
a) Elementary	\$ 134,159.50	\$ 138,673.50
b) Secondary	147,505.50	152,402.00
c) Transportation	<u>25,060.96</u>	<u>25,060.96</u>
Total	\$ 306,725.96	\$ 316,136.46
LOCAL CONTRIBUTION	58,499.99	58,499.99
NET STATE AID (including Primary money)	\$ 248,225.97	\$ 257,636.47
HIGH SCHOOL TUITION	<u>5,561.50</u>	<u>4,434.50</u>
TOTAL STATE AID	\$ 253,787.47	\$ 262,070.97
SUPPLEMENTAL DISTRIBUTION (Act 8 Public Acts 1946)	<u>12,583.40</u>	<u>12,583.40</u>
GRAND TOTAL STATE AID	\$ 266,370.87	\$ 274,654.37
BALANCE IN FAVOR OF COUNTY UNIT		\$ 8,283.50

\*Source: Annual reports filed in office of Commissioner of Schools.

The analysis of actual and potential school income for the year 1945-46 shows that under existing laws the State of Michigan would have provided \$8,283.50 more state aid under the existing formula than was provided. An explanation of the manner in which this figure is arrived at will make the figure easily understandable.

The year 1945-46 was used for comparison because that is the year under which the last state aid has been received. Changes in total state aid for the year ending June, 1947 will alter the County Unit potential proportionately. The equalized valuation figure of \$26,000,000 is the 1944 state equalized valuation. The state aid act requires that each district must first provide 2.25 mills on its state equalized valuation before it is eligible to receive state aid. This figure is known professionally as "deductible millage", and around it has stormed a great deal of controversy in the legislature. Wealthy districts want the rate low and poor districts want it high. It has varied from 2.25 mills to 3.24 mills in recent years.

The school census figure is provided in order to determine the amount of primary school money due a district. Primary money has been included in the gross allowance, and this perhaps makes unnecessary the inclusion of the census figure in the table.

Average membership is broken down into elementary and secondary levels since the state allowance differs by \$20.00 per child as between the two types of school membership. The same

number of children will presumably be in school under a county unit organization as under the existing multi-district scheme.

The elementary gross allowance figure is taken directly from the state aid summary sheet provided by the Department of Public Instruction to each Commissioner of Schools. The secondary allowance and transportation figures are likewise taken from the summary sheet. In general, they represent the number of elementary children multiplied by \$68.50 plus the number of secondary pupils multiplied by \$88.50. In very small districts, however, namely Bates, Hematite, and Mansfield, the enrollment is too low to qualify for the maximum allowance. The gross allowance figures in the county unit organization column are obtained by multiplying the number of elementary children by \$70.50 and the number of secondary children by \$90.50. The \$2.00 differential is due to a clause in the law providing for additional gross allowance for school districts whose average membership exceeds 3,000 pupils. The transportation figure is the actual transportation allowance granted to all schools for the school year 1945-46. This might be lower under a county unit plan, but only if the costs of transportation were lower. There is no way that an accurate estimate of transportation costs under a county unit plan could be determined without exhaustive research, which is beyond the scope of this study.

The local contribution figure of \$58,499.99 represents the product of 2.25 mills times the state equalized valuation of

\$26,000,000. The Net State Aid is the difference between the total gross allowance for all children and the local contribution.

Some 49 high school people continue their schooling beyond the grades operated in their own districts. Mansfield secondary pupils are transported to Crystal Falls and Bates secondary people are transported to Iron River. The state pays tuition costs up to \$113.50 for these people. Under a county unit system they would no longer be non-residents and no tuition would be paid. They would be counted in average membership then, however, which explains the \$4,434.50 in the second column (49 times \$90.50).

In the first special session of the legislature in 1946, legislation was enacted appropriating \$3,200,000 for each of the years 1945-46 and 1946-47 to the public schools, supplementing the regular appropriation. This money was ear-marked for salaries of personnel. It was distributed on the basis of \$3.40 per average membership child, hence the total amount received by all the seven school districts of Iron County, (\$12,583.40) would have been the same under a county unit.

It is clear that a county unit plan has financial advantages to offer from a strictly state aid point of view. Miscellaneous revenues would, judging from an examination of the records, remain approximately the same in the opinion of the investigator, but the problem of income from local taxation needs some investigation and interpretation.

In 1946, a total of \$239,556 was levied against the real and

personal property of Iron County for operation of schools and for debt service. No two school districts levied the same rate of taxation since all but Iron River and Hematite have voted millage beyond the Fifteen Mill Tax Limitation Act. Unless gains in state aid occasioned by a county unit organization be wiped out by decrease in local taxation, an over-all tax rate of 9.8 mills must be levied on the county valuation of \$20,934,895. In addition to this rate, property in Iron River and Hematite will be required to retire the existing debt. The debt problem is not serious, however, as both districts will be completely debt free before any re-organization is likely to come about. A review of Table XV, page 50, will make clear that it should not be too difficult to get people to vote at least 3.5 mills outside the limitation. Four districts, namely, Bates, Crystal Falls, Mansfield, and Mastodon now raise higher millage than 9.8 mills. Stambaugh raised 9.5 mills in 1945-46, and on September 30, 1946 the district voted an additional five mills for a five-year period effective on the 1946 tax roll. Iron River raises 6.5 mills for operation and 2.8 mills for debt service for a total levy of 9.3 mills.

It appears that income under a county unit plan will at least be as high as under the existing system, and possibly higher. Again, however, the manner in which income is expended is as important, if not more so, than the amount of income. The next section will explore expenditures under an hypothetical county unit.

## B. BUDGET EXPENDITURES

This section can survey only roughly the potential savings in operation expenses possible under a county unit plan of school organization as compared with the operation expenses under the present multi-district system. To prepare a completely adequate survey would require a minute analysis of every expenditure incurred by all school districts for at least the last fiscal year. Such an analysis is beyond the scope of this study, but it would be an immediately required task for the administrative staff of a county unit when and if that county unit is set up.

Granting the inadequacy of the following study, however, enough information can possibly be presented to provide at least a sketchy outline of a proper budget for such a new unit of organization as is proposed. Naturally, there will be room for difference of opinion concerning the estimates presented. The investigator's own experience may be too limited to avoid serious error. For that reason, therefore, no claim is made that the work presented is perfect, or even nearly so. It will represent, however, the considered judgment of this writer. The figures have been presented to other Iron County school administrators for critical comment and no serious differences of opinion developed.

All estimates are predicated upon first year conditions under a reorganization in which conditions remain as nearly comparable with present conditions as is considered possible.





Estimates are made conservatively, and unless definite savings can be established, the expenditure totals for a particular item as reported in the 1946 annual reports are repeated.

A simple budget has been constructed which will show the total expenditures for the particular item during the year 1945-46 for all schools, followed by the investigator's estimate of a reasonable figure for that item under a county unit plan. The same account headings as are used in the official annual report filed with the Commissioner of Schools are used herewith. The budget is presented as Table XLIX.

TABLE XLIX

PROPOSED BUDGET FOR COUNTY UNIT SCHOOL DISTRICT FOR IRON COUNTY, MICHIGAN, COMPARED WITH ACTUAL EXPENDITURES FOR ALL IRON COUNTY SCHOOL DISTRICTS FOR YEAR 1945-46

BUDGET ITEM*	EXPENDITURES IN ALL IRON COUNTY SCHOOLS 1945-1946	ESTIMATED EXPENDITURES COUNTY UNIT PLAN, 1947
<b>A. GENERAL CONTROL</b>		
1. Salaries of board-of- education members	\$ 4,110.90	\$ 900.00
2. Supplies and expense of board of education	3,056.94	1,000.00
3. Premium on treasurer's bond	288.00	200.00
4. Salary of Superintendent and assistants	23,177.02	10,000.00
5. Salary and expense of Super- intendent's office, includ- ing clerks	5,000.82	4,500.00
8. Census and compulsory attendance expense	738.56	700.00
9. Other general control expense	<u>1,229.26</u>	<u>1,000.00</u>
10. Total General Control	\$ 37,631.50	\$ 18,300.00
<b>B. INSTRUCTION</b>		
1. Salaries of supervisors	10,385.54	10,385.54
2. Expense of supervisors	821.88	821.88
3. Salaries of supervising principals	17,735.95	20,735.95

Read the table as follows: The total expense for board of education salaries in 1945-46 for all Iron County schools was \$4,110.90. The estimated expenditure for board salaries for a County Unit is \$900.00 per year. Read the remainder of the table in like manner.

TABLE XLIX (continued)

PROPOSED BUDGET FOR COUNTY UNIT SCHOOL DISTRICT FOR IRON COUNTY, MICHIGAN, COMPARED WITH ACTUAL  
EXPENDITURES FOR ALL IRON COUNTY SCHOOL DISTRICTS FOR YEAR 1945-46

BUDGET ITEM*	EXPENDITURES IN ALL IRON COUNTY SCHOOLS 1945-1946	ESTIMATED EXPENDITURES COUNTY UNIT PLAN, 1947
<b>B. INSTRUCTION (continued)</b>		
4. Supplies and expense prin- cipals' office, including clerks	\$ 3,184.02	\$ 7,250.00
5. Teachers' salaries	279,674.00	279,674.00
6. Tuition expense	384.70	
8. Books, free texts	5,788.70	5,788.70
9. School library expense	1,932.30	2,932.30
10. Miscellaneous expense	<u>1,304.52</u>	<u>1,304.52</u>
11. Total instruction expense	\$330,046.37	\$337,727.65
<b>C. AUXILIARY AND COORDINATE ACTIVITIES</b>		
1. Transportation (including maintenance of busses)	38,221.51	34,399.36
2. Public Library maintained by district	6,455.94	
3. School lunch deficits	378.08	378.08
4. Health service	1,142.55	1,142.55
5. Recreation activities	610.24	610.24
6. Other	<u>1,378.29</u>	<u>1,378.29</u>
7. Total Expense	48,186.61	37,908.52
<b>D. OPERATION OF SCHOOL PLANT</b>		
1. Wages of janitors and other employees	43,182.69	43,182.69
2. Fuel, janitor supplies, electricity and water	32,879.53	29,591.58

TABLE XLIX (continued)

PROPOSED BUDGET FOR COUNTY UNIT SCHOOL DISTRICT FOR IRON COUNTY, MICHIGAN, COMPARED WITH ACTUAL EXPENDITURES FOR ALL IRON COUNTY SCHOOL DISTRICTS FOR YEAR 1945-46

BUDGET ITEM*	EXPENDITURES IN ALL IRON COUNTY SCHOOLS 1945-1946	ESTIMATED EXPENDITURES COUNTY UNIT PLAN, 1947
<b>D. OPERATION OF SCHOOL PLANT</b> (continued)		
3. Other Expense	\$ 350.17	\$ 350.17
4. Total Expense	\$ 76,412.39	\$ 73,124.44
<b>E. FIXED CHARGES</b>		
1. Rent		
2. Insurance	\$ 7,595.24	\$ 7,595.24
3. Interest on short term loans	66.76	
4. Total Fixed Charges	7,662.00	7,595.24
<b>F. MAINTENANCE</b>		
1. Buildings and grounds	17,810.26	16,919.75
2. Heating, lighting, ventilating, water service equipment	4,396.85	4,396.85
3. Furniture and instructional equipment	1,664.43	1,664.43
4. Miscellaneous	673.78	673.78
5. Total maintenance expense	24,545.32	23,654.81
<b>TOTAL OPERATING EXPENSE</b> (A-B-C-D-E-F)	\$ 524,484.19	\$ 498,310.66
<b>SAVINGS UNDER COUNTY UNIT</b>		26,173.53

\*Source: Annual Reports filed in the office of the Commissioner of Schools and considered estimates of the author of this study.



It will be observed that the greatest financial savings effected by a county unit plan over the existing system appears to be in the area of general control and administrative expense. The following paragraphs will interpret the major divisions of the budget presented in Table XLIX.

A. GENERAL CONTROL.

The sum of \$900.00 is allocated to salaries for board of education members under the county unit plan. This estimate is based upon the assumption that any subsequent reorganization would probably be effected under the existing Rural Agricultural Act which provides for a school board of five members. The proposed fees represent a maximum payment of \$6.00 per meeting for 15 meetings during the fiscal year, plus additional salaries of \$150 each for the board's president, secretary, and treasurer, respectively. Members of the county boards of supervisors are now paid \$6.00 per meeting. It is quite possible that board members would be reluctant to serve without compensation in Iron County since members of all other public boards are paid on a fee basis.

The estimate for salaries of superintendent and assistant provides for a \$6,000 salary for a general superintendent and a \$4,000 salary for an assistant who might be the business manager. Reductions shown for the other general control items are estimates of savings made possible by eliminating duplication of personnel and supplies. A full time private secretary and a stenographer are contemplated in the budget.

B. INSTRUCTION.

In 1946, Iron County schools reported expenditures of \$10,385.54 for salaries of supervisors. The exact derivation of this item in all districts is not clear; hence, the same amount is placed in the county unit budget. It should provide for three well paid supervisors of instruction. Salaries of supervising principals, item B-3, page 128, have been raised because part of the salary of the superintendent in Hematite, Bates, and Mastodon which is now allocated to general control would require re-allocation. The logical place for that re-allocation is under instructional supervision, or supervising principals' salaries.

Item B-4 has been increased to allow for a full time clerk in each principal's office. A part of their salaries are now allocated to general control.

Teachers' salaries, item B-5, have been left unchanged since a fair estimate cannot be made without a thorough analysis of pupil-teacher ratio, attendance areas, class duplication, et cetera.

Item B-6, tuition expense, is eliminated in the county unit budget since all children would be residents of the new district.

Item B-8 has been increased to allow for the fact that public libraries, now operated by the schools in some districts, would be replaced by school libraries.

C. AUXILIARY AND COORDINATE ACTIVITIES.

An arbitrary savings of 10 per cent has been estimated for transportation of pupils. This is based upon the investigator's carefully considered opinion, based upon the facts of bus operation for several years, that economies in operation, maintenance, and supplies for school buses could be effected if all buses were owned and operated by a single district. Some economies could probably be effected by the immediate re-routing of bus routes, but full efficiency in this area would possibly require several years of experience.

Item C-2 records \$6,455.94 spent in the year 1945-46 for public library expense. A county unit system would have to provide this service in every community or abolish it completely. If other units of government should fail to maintain public libraries in their respective municipalities, and if the people demanded the service from the schools, a county library system could be established with substantial state subsidy. For this reason the item has been deleted from the county unit budget. Other auxiliary and coordinate activity items are left unchanged because definite savings cannot now be predicted.

D. OPERATION OF SCHOOL PLANT.

No change is proposed in the amount paid in wages to janitors and other employes, item D-1, since, presumably, all present buildings would be operated for the first year, at least.



Mansfield might be closed and a janitorial wage savings of nearly \$300 might be effected, but it is not necessarily suggested here. This area would require a careful study by the administrative staff of the new county unit in order to arrive at maximum efficiency of janitorial and other custodial service.

A five per cent savings is conservatively estimated for item D-2, fuel, janitor supplies, electricity, and water. Purchase of coal and janitorial supplies in larger quantities could effect considerable savings.

E. FIXED CHARGES.

No change is suggested for item E-2, insurance on buildings. The same insurance coverage would be required, at least for the first year. Item E-3 is eliminated from the county unit budget because it is a non-recurring item, representing interest on a short term loan by Mansfield and repaid by that district during 1945-46.

F. MAINTENANCE.

A five per cent savings is estimated for item F-1, maintenance of buildings and grounds because probable savings could be effected in the purchase of supplies and more efficient allocation of labor. Some savings might conceivably be possible in other maintenance items, but they are not suggested.

This investigator is convinced that the total economies shown, amounting to over \$26,000, is a conservative estimate of the savings possible under a county unit during the first year of

operation. It is based upon an assumption of at least equal educational service in all areas. Added to the some \$8,000 in additional income established in Table XLVIII, page 121, an amount equal to more than one and one-half mills on the assessed valuation of the property could be available for increasing the educational program offered to Iron County's children.

Conclusions and recommendations based upon the statistical evidence presented in preceeding chapters will be presented in the concluding chapter of this study.

## CHAPTER IV

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Certain very definite facts stand out from the statistical data presented in the foregoing chapters. From these facts certain logical conclusions can be drawn and some definite recommendations can be made. In brief summary the chief findings of the study are as follows:

#### I. SUMMARY

A. Population. The following statements summarize the findings of this study:

1. The population of Iron County declined markedly from 1920 to 1940 and is apparently continuing the decline during the present decade.
2. School census and school membership declined more rapidly than the general population during the same period.
3. The retentive powers of the schools increased, especially at secondary levels.
4. The proportionate decline in the number of elementary children was greater than for secondary pupils.
5. The census of pre-school children promises no pronounced change in school enrollment during the next few years, although the facts indicate that some districts stand to change

more than others in this respect.

6. Consolidation of school plant facilities has kept pace with declining enrollments.

7. Teaching staffs in the larger schools have diminished in number at least as rapidly as the decline in school population, but less rapidly in the smaller schools.

8. Great differences exist in teacher loads throughout Iron County schools, irrespective of over-all pupil-teacher ratios.

B. School Revenues. The most important facts concerning school revenues found by the foregoing investigation are as follows:

1. Total dollar support for Iron County schools from local tax sources has declined more than 60 per cent from 1927 due to a) decline in assessed valuation of property, b) lower average tax rate, and c) liquidation of bonded indebtedness.

2. Financial support from the state and from miscellaneous sources has more than doubled since pre-depression days, but still has failed to restore losses in local revenues.

3. Non-mining property valuations have declined generally at least as rapidly as the decline in mining valuations.

4. The effect of the passage of the Tax Limitation Amendment was to reduce local school revenues by approximately two-thirds during the first year of its operation.

5. The debt burden of Iron County schools has been completely removed from all except two districts and will be removed from

them by 1948.

6. All school districts except two have voted millage beyond that which they are allowed under the Tax Limitation Act.

7. County equalized valuation of property is presently only 88 per cent of the state equalized valuation.

8. Tax rates in all districts are much lower than pre-depression levels when valuations were also much higher.

9. In general, the schools of Iron County were forced to operate on much lower total revenues in 1946 than in 1926, although the income picture in total dollars available has brightened greatly since 1934.

C. Budget Expenditures. The most important facts concerning school expenditures are summarized briefly as follows:

1. Administrative costs of Iron County schools have increased sharply since 1933 in spite of declining enrollments.

2. Total payments made to teachers declined over \$100,000 between 1926 and 1946, although average payment per teaching position increased from \$1,335 to \$1,949 during the same period for the county as a whole.

3. Teacher salaries generally follow a well established schedule in most school districts of Iron County, but glaring inequalities still exist.

4. Per capita costs for teachers' salaries have increased at about the same rate as increases in payments per teaching position.

5. There are wide differences in the methods of allocating payments to supervisors within Iron County school districts, as well as wide differences in interpretation of specific classification of some other expenditures.

6. Expenditures for miscellaneous instruction items have declined in total but increased slightly on a per capita basis.

7. Total cost for all instruction items has increased from pre-depression levels by more than 60 per cent, and per capita costs have more than doubled.

8. The total expended for auxiliary and coordinate affairs and activities has increased sharply from 1934, but 1946 expenditures are less than the amount spent in the years 1936, 1938, and 1939. Per capita costs for the county as a whole, however, are the highest on record.

9. School plant operation costs have continued to increase since 1933, both in total and in per capita.

10. Insurance costs have not increased in total dollar volume, but fewer buildings are insured and per capita insurance costs have advanced sharply.

11. Maintenance of school property has become increasingly expensive since 1933 in spite of very restricted maintenance programs. Per capita maintenance costs in 1946 were five times as great as in 1933.

12. Total costs of ordinary operation of schools in Iron County were nearly \$200,000 less in 1946 than in 1929, but per



capita costs were about 30 per cent higher.

13. Expenditures for capital outlay have varied widely from year to year, with a sharp upturn being shown for 1946.

14. Total revenue expenditures have declined from a peak of \$964,547 in 1928 to \$578,109 in 1946, about 40 per cent. Per capita costs increased from \$148.94 to \$155.94, about 5 per cent, in the same period.

D. Budget for County Unit. The principle findings in regard to income and expenditures for a county unit system appear to be as follows:

1. The operation of the present state aid act would provide approximately \$8,200 additional income to a county unit than to all of the existing seven school districts in Iron County. This is based on 1946 statistics.

2. The major economies of a county unit system would probably occur in the areas of general control, auxiliary and coordinate activities, operation of school plant, and maintenance. Instructional costs might be somewhat higher for the first year under a county unit plan. A total savings over present costs of \$26,000 appears, however, to be a conservative estimate.



## II. CONCLUSIONS

The facts developed in this study, and summarized briefly immediately above, appear to justify the following conclusions:

### A. Population.

1. The population of Iron County will probably not increase in the near future to an appreciable extent. The school problems of the county are not, therefore, those of a rapidly growing community. Hence, emergency measures are not necessary to provide school housing for children. In fact, the school facilities of the county could comfortably absorb a large increase in school population.

2. High school enrollments generally have declined over the period for 1932 to 1946 indicating that there will be little need for expansion in the secondary school program. Since large enrollments facilitate flexibility in the school program it is concluded that the quality of the educational program will be affected, if it has not already been so affected, by diminished membership. It is also reasonable to conclude that the remedy for the difficulty may be further consolidation of districts.

3. A further conclusion may be drawn that many of the present teachers in the secondary grades may be forced to move from the community or qualify themselves for a wider variety of teaching fields.

4. The problem of teacher load, as well as pupil-teacher



ratio, deserves a great deal of careful analysis with a view toward improving instruction, improving teacher morale, and providing for in-service growth. This is admittedly made more difficult by diminishing enrollment, yet it appears that much can and should be done in this area.

5. The facts appear to indicate that school boards have followed a wise policy with regard to closing school buildings as enrollments have declined.

6. The census of pre-school children for Mansfield Township School District leads to the conclusion that a potential membership of 18 to 25 pupils is probable for the next several years. A good one-room school can probably be maintained with this number of children. The costs will continue to be much higher than in any other district, however, and the people of Mansfield should measure those costs against the educational opportunities present in a one-room school and those offered in Crystal Falls. In view of the small population of the district, there is no justification for a continuance of district organization in the township if the school should close, and the people should vote to annex the district to Crystal Falls until such a time as a county unit is established.

#### B. School Revenues.

1. The facts revealed by the study concerning financial support of the schools of Iron County from 1926 through 1946 lead

to the positive conclusion that mining companies and other local taxpayers have little cause for bemoaning the tax burden imposed upon them by the cost of operating the county's schools. The facts also lead to the conclusion that Iron County faces a serious threat to the continuance of adequate local support for the schools and other governmental agencies, and that other sources of school income must be sought.

2. State financial aid, while increasing greatly for the state as a whole, has not kept pace with declining school revenues, largely because of declining school membership upon which state aid is based. It seems logical to conclude, therefore, that unless state aid increases sharply in the near future, local property must be taxed at even higher rates, or the educational program must be curtailed.

3. The facts indicate that local school districts cannot use debt service burdens as an excuse for failure to raise tax rates for operation. The facts also indicate that they have not done so in view of the fact that all districts <sup>except two</sup> have voted themselves outside the limitations imposed by the Fifteen Mill Amendment.

4. The wide disparity between county-equalized and state-equalized valuation of property in Iron County leads to the conclusion that taxing officials have not assessed non-corporate property fairly and that schools, as well as other governmental units, have suffered loss of revenue thereby. The Iron County

Board of Supervisors has been informed of the inequity of the tax assessment practices, but appears reluctant to correct them through the process of county equalization. If this continues, it will be detrimental to the schools because of the abnormal decline in the tax base and because the lowered county revenues will lead to greater pressure by the county to secure a larger share of the fifteen mills distributed each year by the County Tax Allocation Board. Larger county allocations can lead only to lower school allocations.

C. Budget Expenditures.

1. Judging from the study of receipts and disbursements of school revenues, one may conclude that available school funds have generally been wisely and efficiently expended in Iron County during the period covered by this study. Boards of education and administrators are to be commended for their efficient devotion to duty.

2. The facts indicate that a clear relationship exists between per capita costs and fixity of expenditures. The greater the fixity, the higher the per capita costs of districts whose enrollments are declining. Very little can be done about this situation except to enlarge the administrative area so that fixed costs can be divided among a larger number of children.

3. There appears to be little chance of reducing administrative and general control expenditures under the existing seven-district organization.



4. Teacher salaries, though markedly improved during the past five years, are still below a figure which will attract the right kind of young people and hold the superior teachers now working. It is concluded, therefore, that boards of education must take this problem openly and frankly to the public and seek whatever additional funds are necessary to pay professional people a professional wage. The conclusion can also be drawn that the public will become more and more critical of the quality of teaching as those wages rise toward a professional level. The presence of definite salary schedules in five of the seven school districts of Iron County leads to the conclusion that boards of education desire to deal justly with their teachers within the limits of their financial capacities.

5. This investigator is convinced that insurance costs of Iron County schools are excessive and that money could be saved for other purposes if a satisfactory solution to this problem can be found.

6. The relatively low expenditures for repair and maintenance of school plant indicate that this area has been neglected, not willingly, yet necessarily, because of lack of funds. The point of diminishing returns has probably been reached wherein more than proportionate losses accompany economies in this area. Some way must be found to protect adequately the generally fine physical plant of Iron County schools.

7. The facts reveal that very little capital improvement

has been made in the school plants of Iron County in the past fifteen years, with the exception of the new high school at Iron River, the new gymnasium at Mastodon, and the new bus garage at Stambaugh. Transportation equipment has been purchased when needed and when available, but the facts show that many of the school buses are antiquated and obsolete. Purchase of instructional equipment has been especially neglected. Almost all of the school furniture is antiquated and obsolete. Very little equipment for visual education is owned, and no provisions exist for caring for handicapped children. All this leads to the conclusion that the educational program of the schools of Iron County is suffering greatly from lack of proper equipment, and the fundamental right of all children to reasonable equality of educational opportunity is impaired, to say the least.

D. Budget for County Unit.

1. The facts brought out by the investigation of the possible economies of a county unit system seem to indicate that a savings of at least \$26,000 might be added to potentially larger income of approximately \$8,000 to provide some \$34,000 to improve the educational program of the county. This amounts to nearly \$10 for each child enrolled in all the county schools as of June, 1946. It is also equivalent to a tax levy of 1.7 mills on the assessed valuation of the property of Iron County.

2. The facts also seem to show that the establishment of



a county unit of school administration would in no way impair the efficiency of the instructional program, but would, on the contrary, lead to greater flexibility in curriculum offerings.

### III. RECOMMENDATIONS

Certain recommendations appear to be logical outcomes of the conclusions drawn in the preceeding section. Some of the recommendations can apply without a change in the administrative organization of the schools while others point toward the establishment of a county unit of organization.

#### A. Population.

It is recommended that school officials study together the significance of declining school population and continue to seek means of fitting school programs to it. Continuous readjustment of school district boundaries and the administrative system is possibly the best action that could be taken to meet a changing population condition.

2. Administration should inform the present members of school faculties of the trends in school population and should encourage some high school teachers to qualify for elementary and intermediate certification in order that adjustments can be made in work assignments without requiring them to seek employment in other systems, sometimes to their disadvantage. An adequate in-service training program is recommended.

3. Administration should make a careful analysis of the teacher load problem with a view to improving the quality of teaching by lessening the burden of some over-worked teachers. Reassignments of loads should follow discovery of obvious inequities.

4. Boards of education should continue the policy of closing schools as rapidly as conditions allow. It is recommended, however, that the public be consulted, informed, and thoroughly educated to the need before any major consolidation is decided upon. The effect of the proposed consolidation upon the educational welfare of the children should be the final criterion.

5. It is recommended that the Mansfield District study its situation carefully to determine whether the educational returns they are receiving justify the much greater per capita costs that exist for that district. Again, the welfare of the children should determine the action taken.

#### B. School Revenue.

1. In view of the greatly lessened taxes paid by mining corporations and others as compared to those paid prior to the adoption of the Tax Limitation Amendment, it is recommended that information be disseminated showing comparative amounts raised by direct taxation in 1946 and 1926, or other pre-depression years.

2. School officials in Iron County should exert every influence possible to obtain larger grants from the state legislature, and they should support co-operative groups such as the

Michigan Education Association and the Michigan Association of Equalization Schools in their efforts to secure increased state aid. As this investigation is concluded, the people of Michigan are presented with a proposal to amend the state constitution to provide for the return of one-sixth of the sales tax plus a fixed ratio of the preceeding year's sales tax to local districts. The approval of this proposal will increase state aid to the schools to a very large extent. Administration, boards of education, teachers, non-teaching employes, and school patrons should study this proposal thoroughly.

3. It is recommended that a study be made of the methods of tax assessment of local property in all Iron County taxing units. It is especially recommended that the Iron County Board of Supervisors consider the problem of equalizing the many inequitable situations presently existing with regard to assessment practices in the various townships and municipalities.

4. It is recommended that Iron River take steps to call a special election for the purpose of raising additional tax millage beyond the limitations of the Fifteen Mill Amendment. Such action should come not later than 1948, at which time its debt will be retired. The same action is recommended for Hematite not later than 1947. All Iron County schools will then receive millage outside statutory limitations.

C. Budget Expenditures.

1. The study has demonstrated that per capita costs of education are higher in smaller school districts than in larger districts because of the relation between fixity of expense and low enrollments. It is recommended, therefore, that every effort be made to induce the legislature to remove the discrimination against smaller school districts now present in the state-aid act which provides for granting \$2.00 more per child in gross allowance to those school districts with an average membership exceeding 3,000 persons.

2. It is recommended that boards of education continue their policies of increasing teachers' salaries. It is further recommended that a county-wide teacher salary schedule be adopted by common consent to remove obvious inequities. This county-wide schedule should be a single salary schedule in all respects. If funds are unavailable, the public should be petitioned to vote the necessary additional tax levies.

3. It is recommended that a study be made of insurance costs in Iron County with a view toward establishing a self-insuring system, perhaps by the creation of a co-operative revolving fund, if such a fund should prove legally possible and financially practicable. In any event, the Department of Public Instruction should sponsor legislation enabling such a revolving fund to be established on a state wide basis similar to the system by which other state property is protected. It is fully recognized that

vested interests would be affected by such a system.

4. An expanded program of building maintenance and repair should be undertaken immediately in most school districts of Iron County in order that the capital investment in buildings might be protected and preserved. If necessary, additional local tax levies should be levied for this purpose.

5. An immediate expansion of capital outlay should be undertaken, especially in the area of new instructional equipment. It is recommended that Building and Site Funds be established by a vote of the people at the annual school meetings in order that funds for capital outlay can be accumulated.

D. Budget for County Unit.

The financial advantages which have been established for a county unit system of administration are so great that it is recommended that steps be taken to set in motion the legal machinery necessary to present the proposition directly to the people of Iron County. A thorough program of public information should be instituted, however, and the facts should be presented fairly and objectively. Once again, the educational interests of boys and girls should be the guiding criterion.

E. General Recommendation.

The investigator has gained such a wide knowledge of the financial condition of the schools under his jurisdiction that he strongly recommends that the County Commissioner of Schools

continue to keep the data presented in the foregoing pages up to date following the receipt of annual statistical and financial reports in July of each year. He further recommends that copies of most of the tables presented in this study be provided for the separate school districts, and that all data be made available to boards of education and citizens of the county as they desire.



## BIBLIOGRAPHY

- Elliott, Eugene, "Ninety-Sixth Report of the Superintendent of Public Instruction", Lansing, Michigan, Table 27, p. 86.
- Langfitt, R. Emerson, The Daily Schedule and High School Organization. New York: The Macmillan Company, 1938. Chapter V, pp. 99-119.
- Gilbert, George, "Pupil-Teacher Ratio and Gross Allowance Per Teacher from State Aid," Mimeographed Pamphlet, Department of Public Instruction, Lansing, Michigan, 1943.
- Schulze, K. W. and Sherwood, E. Burr, "Upper Peninsula Salary Survey", Mimeographed report of Committee on Salaries to Annual Conference Upper Peninsula School Board Members and Superintendents, Crystal Falls, Michigan, February, 1945. 42 pp.
- Sherwood, E. Burr, "The Teacher Load Problem in Iron County, Michigan Schools", Unpublished report of study made by the Office of County School Commissioner, Crystal Falls, Michigan, May, 1946.
- Iron County Land-Use Committee, "A Progress Report on Land-Use for Iron County", Mimeographed Report of the Committee, Crystal Falls, Michigan, 1941. 97 pp.
- "The Report of the Commission", The Improvement of Public Education in Michigan, Lansing, Michigan: Published by the Authority of the Michigan Education Study Commission, July, 1944. 301 pp.



~~Dec 11 '48~~  
Jan 3 1949

Feb 9 1949

Jul 16 '53

May 29 '56

Jul 31 '56

Jul 31 '57

May 8 '57

Jun 19 '57

Feb 20 '59

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 03103 8973