

THE UNIVERSITY OF MINNESOTA

GRADUATE SCHOOL

Report
of
Committee on Thesis

The undersigned, acting as a Committee of the Graduate School, have read the accompanying thesis submitted by Hanna Sophia Berg for the degree of Master of Arts. They approve it as a thesis meeting the requirements of the Graduate School of the University of Minnesota, and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts.

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Date July 29-1922

THE UNIVERSITY OF MINNESOTA

GRADUATE SCHOOL

Report
of
Committee on Examination

This is to certify that we the
undersigned, as a committee of the Graduate
School, have given Hanna Sophia Berg
final oral examination for the degree of

Master of Arts

We recommend that the degree of

Master of Arts

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Date *July 29-1922*

A Comparative Study of State and
County Aid to High Schools
in Utah, North Dakota
and Minnesota.

A thesis submitted to the
Faculty of the Graduate School of the
University of Minnesota

by

Hanna Sophia Berg.

In partial fulfillment of the requirements
for the degree of
Master of Arts

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A COMPARATIVE STUDY OF STATE AND COUNTY AID
TO HIGH SCHOOLS IN UTAH, NORTH DAKOTA,
AND MINNESOTA.

From 1890 to 1918 public high schools in the United States have increased at the rate of one a day for 28 years.¹ This means that the number of public high schools during this period under consideration increased 452%.²

Table 1, which follows indicates the increase in the number of high schools from 1890 - 1918 under public control.

TABLE I.— Number of Public High Schools
in the United States 1890-1918.^a

	1890	1900	1910	1918
Number of schools reporting	2526	6005	10,213	13,951
Per cent of all secondary schools under public control	60.8%	75.2%	85.2%	87.2%

a Bureau of Education, Bulletin, 1920,
No. 19, p. 11

1. Bureau of Educ., Bulletin, 1920, No. 19, p. 15

2. Ibid., p. 15

Bonner states that the number of public high schools (13,951) reported for the year 1918 in Table 1, is undoubtedly too small, as the mailing list of the Bureau of Education for 1918 includes 16,300 public high schools.³ This is 2349 more high schools than are reported in Table 1, for the year 1918. Bonner's mailing list has been compiled from lists of high schools submitted by various officials of the State Departments of Education, so it is probably complete. The number of high schools reported in Table 1, for the other years is in all probability also considerably less than the actual numbers.

SCHOOL COSTS
INCREASING

School costs in the United States during the last fifty years have been advancing at a constantly accelerating rate. The total amount spent for public school education in the United States in 1920 was twelve times as much as was spent in 1870, fifty years ago.⁴ On the other hand, the population of the United States has increased but three times what it was in 1870.⁵ The greatest per cent of increase in enrollment has been in the public high schools. In 1870, there were enrolled in the public schools, 191 children of school age (6 - 18 years) for every 1000 of total population. In 1918, this ratio had increased to 198 children of school age for each 1000 total population.⁶ In 1890 there were only 3.2 high school

3. Bureau of Education, Bulletin, 1920, No. 19, p. 15

4. Burgess, Trend of School Costs, p. 23

5. Ibid.

6. Bureau of Educ., Bulletin, 1920, No. 11, p. 94

students enrolled in the public schools to each 1000 total population. In 1918 the ratio had increased to 15.6 students to each 1000 total population or approximately 5 times as many as were enrolled in 1890.⁷ This increase in high school enrollment has, of course, been accompanied by increasing demands for the establishment of public high schools, but what is still more significant is its bearing upon a study devoted to high school finance. That the costs of high school education in the United States have been increased by many factors other than the mere increase in the number of high schools and number of high school pupils is a fact. Let us consider briefly at this point some of these contributing causes.

The most important factors producing an acceleration of high school costs, other than an increasing enrollment and an increasing number of high schools, include the following: 1. Establishment of a large number of small high schools. 2. The higher expenditure for high school education in proportion to elementary education. 3. The changing ideals in standards of citizenship. We will consider each contributing cause briefly in turn.

The high school is a very much more expensive institution than the elementary school,⁸ as it requires more

7. Bureau of Education, Bulletin, 1920, No. 19, p. 48

8. Bureau of Education, Bulletin, 1920, No. 19, p. 78

There is some difficulty in arriving at a per capita cost for high school education separate from that of elementary schools, as many times both systems are held in one building and are financed by a common fund. A study which covers nine states, shows that for the year 1918, the average per pupil capita cost was for the elementary school \$31.65 and for the high school \$84.49. These costs have been computed from data presented in Bureau of Education, Bulletin, 1920, No. 19. p. 77

highly trained teachers, and a greater expenditure for laboratory apparatus and equipment for specialized work. The establishment of the large number of high schools is probably due to the popularizing of secondary education by means of enriching the curriculum and the general reorganization therein. Also the increasing number of small schools is due to their establishment being left to the control of local units.

In view of facts thus far presented, it is evident that one of the most important questions in the whole field of public school finance is that of high school support. One of the first steps to be taken in attempting to map out a scientific and effective system of financing high schools is to discover the methods and policies employed at the present time by various states and the effects of the same.

PROBLEM.

It is the purpose of the present study to describe in detail the financial systems and policies employed by three states in their efforts to maintain public high schools. The more important questions to be considered in connection with each state will be the following: 1. Sources of high school revenue. 2. Disbursement of revenues for high schools, including uses. 3. Merits and defects of the present system. 4. Recommendations.

The states to be included in the study are:

1. Utah, 2. North Dakota, and 3. Minnesota.

SOURCES

The primary sources from which data have been taken, include laws of each state studied, official reports issued by school officers, and by auditors and

treasurers. The most important of such reports are those of the superintendents of public instruction of departments of education, and of high-school inspectors, codifications of school laws issued by the departments of education, and reports of auditors, treasurers, and tax commissioners. The most important secondary authorities are as follows: Burgess, Trend of School Costs; Swift, State Policies in Public School Finance; Keith and Bagley, Schools and the Nation; Kelley, Public School Support in Minnesota, Kent, State Aid to Public Schools in Minnesota. A number of miscellaneous sources cited are included in the appended bibliography.

METHOD.

The nature of the study and the sources employed have determined the method followed, which is documentary and statistical. It may well be noted at this point that little or no attempt has been made to give historical treatment. From these preliminary statements we may now turn to a consideration of high school support in each selected state which will be treated in the following chapters, Utah is the first state to be considered.

STATE AND COUNTY AID TO HIGH SCHOOLS
IN UTAH.

CHAPTER I.

General Introduction to the Present Situation.

SCHOOL CENSUS
IN UTAH.

Before attempting to consider Utah's high-school system and the means and policies she employs in supporting the same it may be well to gain some conception of her general educational situation. From the standpoint of the present study, a conception of the general educational situation can perhaps be best gained if we consider the number of children Utah must educate, the proportion of these who are of high-school age. Table 2, which follows, attempts to show the more important facts bearing upon the above aspects of the educational situation.

TABLE 2.—School population, attendance
and enrollment for Utah, 1919-1920.

1. Total public school census	128,846 ^a
2. Total high-school census	30,057 ^b
3. Total high-school enrollment	20,357 ^c
4. High-school enrollment, day students	14,257 ^d
5. Population of high-school age, not in any school	3,700 ^e
6. Number of part time students enrolled	6,100 ^e

a. Utah Superintendent of Public Instruction, Report, 1918-1920, p. 20.

b. Ibid., p. 49.

c. Ibid., p. 20.

d. Ibid., p. 49

e. Ibid., p. 21

Proportion that high-school population is of
school census.

1. Per cent, total high-school census is of total school census	23.3%
2. Per cent enrolled high-school census is of total school census	15 %
3. Per cent high-school population not in attendance is of total high-school census	12 %

From Table 1, it is seen that Utah has a school enumeration of 128,846 children of school age (6 - 18 years)⁹. Her school census law requires that a school enumeration shall be taken annually.¹⁰

Of the 128,846 children of school age in the state there are approximately 30,057 persons who are either enrolled in the public high schools, or who come under the part time compulsory school law,¹¹ or are in private schools. Our data for the number of secondary school students as stated above can not be exact, as it is difficult to discover the true number of high-school students enrolled in private schools and of those not in schools, having been excused from part time attendance for various reasons. In all probability 30,057 high school population is nearly correct, as it indicates approximately one-third of the school population for the twelve grades in school which is the ^{normal} proportion, allowing for no loss through mortality or other

9. Utah Superintendent of Public Instruction Report, 1918-1920, p. 21

10. Utah General School Laws, 1921, sec. 4609, p. 26

11. Every parent, guardian, or other person having control of any minor between 16 and 18 years of age or any minor under 16 years of age who has completed the 8th grade, shall be required to send such minor to a regular public or private school at least 30 weeks each school year, unless excused for stated reasons. - Utah General School Laws, 1921, sec. 1, p. 68.

causes.¹²

Only 3,700 children of high school age are not being reached by any educational agency. This is approximately 12% of the children of high school age. This is a record unsurpassed probably by any other state of the union. Table 1, shows that there are 6,100 part time students enrolled in the public high schools of Utah. This number represents the results of the part time compulsory attendance law passed in 1919. This group is nearly one-half of those enrolled as regular day students. The large increase in the enrolment in the high schools of Utah cannot help but alter the policies of her school system including her system of support.

Importance of High School Finance in System of School Support.

A study of the high school finance of any state will of necessity include some consideration of the financial situation of the elementary schools of the state. In many states the accounts for the elementary schools and the high schools are not kept separate. Such states have common sources of revenue and make disbursements from a common fund. Moreover the per cent that the costs of the high schools are of the total amount of expenditure, may indicate whether the high school is receiving a disproportionate amount of revenue for support compared to the elementary schools. Therefore it will be necessary to discover the sources of the public school funds before proceeding to that of the high school. It will be noted later that high school

12. Ayres, An Index Number to State School Systems, p. 64.

education in Utah has not developed at the sacrifice of elementary education.

Table 3 indicates what funds are available for public school support and what funds are expended (1919 - 1920).

TABLE 3.-Receipts and expenditures of public school support for Utah in 1919 - 1920. ^a

1. Total school receipts	\$9,884,764.09
2. Total receipts for high schools from the state	162,552.93
3. Total expenditure for public schools	8,353,534.15
4. Total expenditure for high schools	2,225,353.89
5. Total expenditure for elementary schools	6,128,180.26

a. Utah Superintendent of Public Instruction Report, 1918-1920, Financial Report, p. 7

Table 3 indicates what funds are available for public school support. The total expenditure for public schools for the same period (1919 - 1920) was \$8,353,534.15.¹³

The financial report of the Department of Education of Utah makes a separate item of high school running expenses and of elementary running expenses. The costs of (1) buildings, sites, and bonds, (2) the interest, and (3) administration are not itemized separately for the high school and elementary school. It was necessary therefore to pro rate these items of expense per capita and assume that they will be the same for elementary and high school. The method used for pro rating was the following: The cost of administration was

¹³ Utah Superintendent of Public Instruction Report, 1918-1920, Financial Report, p. 7.

\$3.61¹⁴ per capita school population. The number of children of high school age was found to be 30,057. Therefore the high school's portion of administration costs will be \$108,505.77. The same method was used for the other two items as stated above. The total cost of high school instruction therefore aggregated \$2,225,353.89. Since the total cost of the public school is \$8,353,534.15, the cost of the high school instruction is therefore 27.8% of the cost of all public education. This per cent is .8% more than a similar per cent for a sampling of nine states.¹⁵

Table 4, which follows, shows the purposes for which expenditure is made in Utah high schools.

TABLE 4. Expenditure for Education in Utah High-Schools (1919 - 1920).

1. High-school running expenses	\$1,542,769.42 ^a
2. Building and sites	500,549.05 ^b
3. Interest	73,639.65 ^b
4. Administration	108,505.77 ^b
Total	\$2,225,353.89 ^b

- a. Utah Superintendent of Public Instruction, Report, 1918-1920, Financial Report, p. 10
 b. Data computed from Superintendent of Public Instruction Report, 1918-1920.

UNIT COSTS IN
EDUCATION IN UTAH.

It is a well known fact that high-school education per capita is several times as great as that for the elementary pupil. By discovering

14. Ibid., p. 13.

15. Bureau of Education, Bulletin 1920, No. 19, p. 77

the unit costs of education for the elementary school and high school in Utah it will be possible to understand better the educational situation as it exists in Utah.

It will be possible to compare the ratio between elementary schools and high-schools in Utah with that of the other states. With this data it may be possible to arrive at a balance between these costs. Bonner found for nine states that it cost 2.67 times as much to keep a high school student in school as it did an elementary pupil.

TABLE 5. Costs of elementary education compared to high-school education for nine states 1917 - 1918.^a

1. Cost of elementary education per capita	\$31.65
2. Cost of high-school education per capita	\$84.49
3. Ratio of elementary education to high-school education	2.67

a. Bureau of Education, Bulletin 1920, No. 11, p. 77.

How this ratio compares with that of Utah may be seen in Table 6.

TABLE 6. Important factors in unit costs and per cents in high school education in Utah, 1919 - 1920.

1. Per cent which cost of high school is of total cost of education	27.80%
2. Total expenditure per capita enrolled child in the public schools	\$67.40
3. Total expenditure per capita enrolled child in elementary school	49.70
4. Total expenditure per capita high school student enrolled in public schools	109.31

(Continued on next page.)

TABLE 6. (continued.)

5. Ratio between elementary cost per enrolled child and cost of high school student	2.19
6. Expenditure per high school pupil for purposes other than teachers' salaries	\$62.84
7. Expenditure per high school pupil for teachers' salaries	\$46.47 ^a

a. Teachers' salaries are given in the financial report of the Superintendent of Public Instruction, p. 10, as \$946,037.54. As stated before in Table 2 the number of high school students is 20,357.

As shown in Table 6, the cost of high-school education per enrolled student is found to be \$109.31, while the cost of elementary education per enrolled student is \$49.70. The cost of educating a high school student in Utah is therefore 2.19 times as much as educating an elementary student. The higher cost of elementary education as compared with what Bonner found for nine states as cited before is a significant fact and indicates that the development of secondary education in Utah has not taken place to the retardation of elementary education. The liberal aid the state contributes to the elementary school has a tendency to produce a fair balance between the cost per capita of the two schools.¹⁶ The larger taxing unit may have tended to equalize the two costs.

The index of the educational progress of a state may be indicated by the expenditure a state is willing to make

16. The State levies such a tax for district school purposes which added to any other state funds available will produce \$2500. Utah State Constitution, Art. XIII, sec. 7.

for purposes other than instruction alone. Table 6 indicates that Utah spends \$62.48 per capita for purposes other than teachers' salaries and \$46.47 per high-school pupil for teachers' salaries. The ratio for these two items is then 1.35 times as much for other purposes as for teachers' salaries. From Bonner's data¹⁷ it was found that the ratio for nine states was 1.61 times as much for purposes of instruction as for other purposes. Table 7 indicates his findings.

TABLE 7.—Per capita cost of instruction, and
for purposes other than instruction and their ratio,
for nine states, 1917-1918.^a

1. Cost of instruction for high-school student per capita	\$52.12
2. Cost for purposes other than instruction per capita	\$32.37
3. Ratio of cost of instruction to cost for purposes other than instruction	1.61

a. Bureau of Education, Bulletin, 1920, No.19.
p. 78.

Bonner includes under the cost of instruction the (1) salary of teachers, (2) cost of high-school textbooks and (3) supplies used for instruction, while the data for Utah is for teachers' salaries only. In the first case above the cost of teachers' salaries is 42.5% of the high-school education, while in the second case the cost of instruction is 61.6% of the cost per capita for high-school education. Considering that only

17. Bureau of Education, Bulletin 1920, No. 11, p. 62

three per cent of the school dollar goes for textboods and supplies these two items do not materially affect the 61.6% ratio.

II.

FEATURES PECULIAR TO SCHOOL ORGANIZATION AND HIGH-SCHOOL SUPPORT.

GENERAL ORGANIZATION AND GOVERNMENT OF THE SCHOOL SYSTEM.

In 1915 the legislature of Utah passed a county consolidation law, under which the district schools of Utah were organized on the basis of the county district as the controlling local unit. Each county is formed into a county high school district under the administration of a school board of five members. Utah has twenty-nine county organizations for governmental purposes, but thirty-five county high school districts.¹⁸ For example, Sanpete County consists of North Sanpete High School District and South Sanpete High School District. Each County district is divided into five precincts each of which elects one member of the school board.¹⁹ If a county has a population of 5,000 persons, it may be divided into two or more high school districts, each of which in turn is a county school district of the first class.²⁰ Five school districts have not been affected by the above consolida-

18. Superintendent of Public Instruction, Report, 1918-1920, p. 13. Financial Report.

19. General School Laws, 1921, sec. 4597, p. 23

20. Session Laws, 1915, sec. 1891, p. 78

tion law and have retained their early city organizations, which are not widely different from that of the county district.²¹ In city school districts of the first class, a board of ten members administers control, two members being elected from each of five municipal wards. In the second class districts one member is elected from each municipal ward.²² Thus in the number of board members and the method of election these city school districts correspond closely to the organization of the county school district, although they are not the typical district of Utah. There is one city school district of the first class, viz. Salt Lake City, and four of the second class, Ogden, Logan, Provo, and Murray.

A haphazard establishment of high schools in a county school district or any rural district would not be conducive to a high grade of secondary school efficiency. To avoid the establishment of too many high schools in a community, Utah restricts, by statute, the number that can be established.

A section in her school laws states that any precinct or precincts of not less than 1200 population in a county high-school district may petition for the establishment of a high school. Provided that no high school shall be established if the precinct is within five miles of an established high school and no high school shall be located within 12 miles of any existing

21. Utah Superintendent of Public Instruction, Report, 1918-1920,
p. 79

22. Utah General School Laws, 1921, sec. 4662 - 4664, p. 42

high school. The school boards, however may establish a high school, independent of petition, whenever in their opinion the need arises.²³ The advantage of consolidation is that it affords convenient high-school centers with provision for transportation for children at a distance. Utah reaches a large number of her high school population thus. It may be well to turn now to her system of support.

III.

SOURCES OF HIGH SCHOOL REVENUE.

As important as the distribution and organization of high school districts is the knowledge of the sources by which the high schools are supported. Table 8, which follows, indicates the sources contributing revenue to the support of the high schools for the year 1919 - 1920, as well as the per cent of revenue contributed by each source. It will be noted that approximately 6% of the total revenue for the support of high schools is derived from the state. On the other hand the local sources contribute 92% of the revenue.

TABLE 8. Receipts of high-school revenue in Utah, 1919 - 1920.

1. Federal aid for vocational education	\$ 9,996.75 ^a
2. State aid for vocational education	22,339.94 ^b
3. State High-School fund	130,216.24 ^c
4. Local sources	2,062,800.96 ^d
5. Total receipts	2,225,353.89 ^e

(Continued on next page)

23. Utah Session Laws, 1919, sec. 1, 1417x, p. 280

TABLE 8. (Continued).

6. Per cent that federal aid is of total receipts	.4%
7. Per cent that state aid for vocational education is of total receipts	1%
8. Per cent that state high school fund is of total receipts	5.8%
9. Per cent that local revenue is of total receipts	92.8%

- a. Utah Superintendent of Public Instruction, Report, 1918-1920, p. 33
- b. Ibid., p. 34
- c. Ibid., p. 7, Financial Report.
- d. Computed from data obtained from Superintendent of Public Instruction Report, 1918-1920.
- e. Data from Table 3.

FEDERAL SOURCES.

The Smith Hughes Act was accepted

by Utah February 23, 1917.²⁴ This Act

provides for the supervision of and instruction in Vocational Agriculture, Home Economics, Trade and Industrial subjects, and Teacher Training. Plans for instruction of these subjects made by the states, must be approved by the Federal Vocation Board. Schools approved by the State Vocational Board are to share in federal funds not to exceed 50% of the moneys expended for the salaries of teachers employed for the instruction of these subjects. For the biennial period 1918 - 1919, the sum of \$35,000 was available for the aid of vocational training, including teacher training.²⁵ For the next biennial period a little over \$40,000 will be available.²⁶ Only \$2000, however, can be used for home economics, and no part of it can be used for health education or year around training in vocation, as heretofore aided. The aid to civic and patriotic service will be discon-

24. Utah Superintendent of Public Instruction, Report, 1919-1920, p. 31

25. Utah Superintendent of Public Instruction, Report, 1918-1920, p. 31

26. Ibid., p. 35

tinued also.²⁷ The unexpended balance of the appropriation available for the year 1919 - 1920, was \$18,816.00.²⁸

Although the Smith-Hughes aid to the several states for the education of all children from fourteen years to eighteen years is not specifically an aid to secondary schools, the age restriction virtually makes it become so.²⁹ It is the high schools that have taken advantage of the opportunity to qualify for the aid. The course of work for Utah in the vocational subjects required in the secondary schools will be stated under the section on "Conditions of Participation". The Smith Hughes Act provides that the federal aid must be matched by an appropriation by the state. From the discussion of the federal aid to schools, we turn to that of the state sources of support of high schools.

STATE SOURCES. State taxes. -- Utah derives state moneys for high schools from only two sources, namely: state taxes and state appropriations. Only one type of state tax is now provided. This is a general property tax. Regarding this tax the state constitution provides that all the funds derived from any state tax for high schools shall be apportioned among the several cities and school districts according to the attendance at the high school therein and on condition that the high school maintain the standards set by

27. Ibid., p. 35

28. Utah Auditor's Report, 1920, p. 30

29. Bagley and Keith, School and the Nation, p. 99.

As stated before, there are five city districts whose administration differs somewhat from that of the county district organization. Each of these types of districts will be discussed in turn.

A county high school district may raise revenue for the purpose of maintaining and supporting schools by levying a tax on the property of the district not to exceed $5\frac{1}{2}$ mills per year and one and one-half additional for building and buying school sites, but in case any funds collected for support or maintenance are not used within the school year, for which they were raised, they may be used for building purposes.³⁹

Special taxes for school buildings and sites may be levied by the board of education in county districts, if a majority of the voters declare in favor of the tax. This tax cannot exceed 1% of the taxable property in the district, and can be levied on the property of the district for one or more years.⁴⁰

Perhaps the most common way of raising money for special projects is for a district to bond itself for the amount to be raised. Usually there is a limit set to which a county district may bond itself. In Utah the amount of bonds including indebtedness proposed to be issued can not exceed 4% of the value of taxable property in the district.⁴¹ The pur-

39. Utah General School Laws, 1921, sec. 4624, p. 31

40. Ibid., sec. 4626, p. 32

41. Ibid., sec. 4631, p. 35

made for the federal funds to high schools.³⁷ The aid for vocational training, including, agriculture, home economics, and trades and industries has gone to the high schools, but the aid for complying with health requirements has been received mostly by schools below the high school.³⁸ From a consideration of the states sources of high school support we may now turn to the largest and by far most important sources of revenue for secondary education, namely, the local source.

LOCAL SOURCES.

The high school is even more dependent upon local support than is the elementary school. As stated before, local sources contribute as much as 93% of the revenue to the support of the high school. The several local sources of revenue consist of those raised by (1) annual tax levies, (2) special tax levies, (3) bonds issued for permanent improvements, (4) bonds issued for a sinking fund, (5) taxes for prior indebtedness of a consolidated district, (6) special taxes to pay judgments against a district. In discussing the local sources of revenue for the high school, it will be necessary to include the sources of revenue for all schools in the county districts. There is no special local tax for the high school alone. All the schools in the county district are financed from a common fund.

As the county is the chief local unit, a study of local sources will virtually mean county sources of revenue.

37. Session Laws, 1919, Ch. 86, sec. 4

38. Utah Superintendent of Public Instruction, Report, 1918-1920, p. 32-34

the State Board of Education.³⁰ Attendance by later interpretation means attendance at a high school for at least twenty weeks during the school year.³¹ The state tax for high schools must not exceed one-half mill on each dollar valuation.³² At present it is 0.2 mills on the dollar.³³ The total of the taxes apportioned to state high schools for the year 1920 was \$137,812.87.³⁴

STATE APPROPRIATIONS.

The State of Utah makes very few special appropriations for high school education. In fact there is no state appropriation for secondary schools except that made to match the Smith Hughes federal grants. The legislature of 1919 appropriated \$12,500 for the biennial period beginning July 1, 1919, for the promotion and aid of (1) health education, (2) vocational education, and (3) civic and patriotic service education to extend over a period of twelve months in the school districts of Utah.³⁵ Of this total appropriation of \$112,500 for the biennium, \$55,751.58 was available for the year 1920.³⁶ The administering of these funds is left to the discretion of the Vocational Board of the Department of Public Instruction with the same provisions as

30. Utah State Constitution, Article X, sec. 3.

31. Utah General School Laws, 1921, sec. 4580, p. 19

32. Utah State Constitution, Article XIV, sec. 7

33. Utah State Auditor's Report, 1920, p. 46

34. Ibid., p. 20

35. Superintendent of Public Instruction, Report, 1918-1920, p. 31

36. State Auditor's Report, 1920, p. 38

poses for which the bonds can be issued are (1) raising money for building or purchasing schoolhouses, (2) furnishing the same, (3) improving the grounds, (4) refunding and redeeming outstanding bonds.

A consolidated school district having contracted debts before consolidation may band itself for the funding, purchase, or redemption of the outstanding indebtedness.⁴²

The law controlling the raising of money for a sinking fund is the same in all types of districts. The board of education in any school district may make estimates to include an amount sufficient to pay the interest on outstanding bonds. It also may levy a tax for a sinking fund of 2% of the par value of the outstanding bonds for the redemption of the bonds.⁴³

The following discussion of the methods of raising revenue for the support of schools in city school districts of the first and second classes will reveal wherein these districts differ from the county high-school districts.

In city school districts of the first class, a tax levy somewhat higher than that permitted to be levied in the county high school districts, can be levied for support and maintenance. This tax may not exceed 6½ mills on the dollar upon all taxable property of the city, and 2½ mills additional on the dollar to be used exclusively for the purchase of school sites and the erection of buildings. In cities of the second

42. Ibid., sec. 4635, p. 36

43. Ibid., sec. 4636, p. 37

class, the limit is raised still higher, the limit being 10 mills on the dollar.⁴⁴

Special tax levies in city districts may be made in the usual way by submitting the proposal of a special tax levy to the vote of the people. No limit to the amount to be raised is stated, but the purpose is to make permanent improvements. This provision applies to city districts in both the first and second classes.⁴⁵

The provisions for bonding a city district are similar to those in the county high school districts, except that the amount of bonds must not exceed 3% of the taxable property in the city.⁴⁶

In so far as the limit of indebtedness to which a school district may obligate itself, concerns sources of revenue, it is appropriate to state that no city, town or school district can incur indebtedness exceeding 4% of the taxable property therein.⁴⁷ This provision is included in the state constitution and applies to any corporate unit of government under the authority of the state. In concluding the discussion of local sources of school revenue Form A. indicates the same in tabular form.

44. Ibid., sec. 4704, p. 52.

45. Ibid., sec. 4706, p. 53

46. Ibid., sec. 4712, p. 55

47. Utah State Constitution, Article XIV, sec. 4.

FORM A. - Local Sources of Revenue.

12-21-64

Class of District.	Support and maintenance with additional tax levy for buildings and sites.	Special taxes for buildings and sites.	Bonds for permanent improvements.	Bonding for sinking fund & indebtedness.	Bonds for prior debts of consolidated dist.	Tax to pay judgment against district.
County high-school County dis.	Not to exceed 5 1/2 mills and 1 1/2 mills additional for bldgs. and sites. ^a	Not to exceed 1% of taxable property for buildings or permanent improvements. ^b	Not to exceed 4% of taxable property in district. ^c	Not to exceed 2% of par value of outstanding bonds. ^d	To the amount of indebtedness. ^e	To the amount of indebtedness. ^f
City high-school district of first class.	Not to exceed 6 1/2 mills and 2 1/2 mills additional for bldgs. or permanent improvements. ^g	No tax limit stated. ^h	Not to exceed 3% of taxable property in district. ⁱ	Not to exceed 2% of par value of outstanding bonds. ^d	To the amount of indebtedness. ^e	To the amount of indebtedness. ^f
City high-school district of second class.	Not to exceed 10 mills No provision tax levy limit for permanent improvements. ^j	No tax limit stated. ^h	Not to exceed 3% of taxable property. ⁱ	Not to exceed 2% of par value of outstanding bonds. ^d	To the amount of indebtedness. ^e	To the amount of indebtedness. ^f

- a. Utah General School Laws, 1921, sec. 4624, p. 31
- b. Ibid., sec. 4626, p. 32
- c. Ibid., sec. 4631, p. 35
- d. Ibid., sec. 4636, p. 37
- e. Ibid., sec. 4635, p. 36

- f. Ibid., sec. 4586, p. 19
- g. Ibid., sec. 4704, p. 52
- h. Ibid., sec. 4706, p. 53
- i. Ibid., sec. 4712, p. 55
- j. Ibid., sec. 4704, p. 53

IV.

DISBURSEMENT OF FUNDS.

METHOD AND BASES. Federal Fund. -- The Smith Hughes fund is apportioned to the several high schools on a teacher basis. Each school is required to meet certain minimum requirements laid down by the State Board of Vocational Education. This law states that whenever any schools or activities have been organized in accordance with the rules and regulations adopted by the State Board of Vocational Education, these schools shall be entitled to share in the federal and state funds to an amount not to exceed 50% of the moneys expended for the salaries of teachers and supervisors engaged in carrying out the provisions of this act.⁴⁸

In speaking of the qualifications of teachers, one is lead to believe that Utah is certificating her regular teachers to give instruction in the vocational subjects in her secondary schools, as she makes no mention of special preparation and certification of teachers for these subjects. Many states have been forced to do this due to the failure of the land grant colleges to provide appropriate curricula and the large demand for teachers of vocational work. Writing for 1917 it is stated The College of Agriculture in Utah has not as yet offered any special courses for the preparation of teachers in secondary vocational education.⁴⁹ The State Board of Vocational Education has charge of this fund and all disbursements of this

48. Utah Session Laws, 1919, Ch. 86, sec. 7

49. Bureau of Education, Bulletin, 1917, No. 38, p. 31

fund must be approved by it before the State Treasurer can make any payments.⁵⁰

STATE APPRO-
PRIATIONS.

For Special Projects. -- The State appropriation to match the federal appropriation under the Smith Hughes Act is apportioned at the same time and under the same provisions as the federal fund. The method of disbursement has been explained in the foregoing paragraph. The legislature of 1919 appropriated \$112,500 for the biennial period beginning July 1, 1919,⁵¹ of which \$55,751.58⁵² was available to the schools for the school year ending July 1, 1920.

STATE HIGH-
SCHOOL FUND.

The State High-School Fund, which is derived from the state high-school tax for high schools, is apportioned per capita among the several high schools according to the number of high-school students in daily attendance. In January the high school boards of education must send into the State Department of Education a sworn statement of the number of high school students, who are expected to attend school at least 20 weeks during the school year. In June the high school boards send in a final certified statement of the number of high-school students who have actually attended at least 20 weeks during the school year. The aid to be granted the high school is dependent upon these reports, as well as satisfactory reports from the state high

50. Ibid., Ch. 86, sec. 2-3

51. Utah Superintendent of Public Instruction, 1918-1920, p. 31

52. Utah Auditor's Report, 1920, p. 38.

school inspector to the Department of Education. If the January reports are satisfactory the State Department of Education orders the first apportionment which is 70% of the aid to be distributed to the several high school districts.

The remainder of this fund is apportioned in June to the various high-school districts maintaining high schools. In making such final apportionment the State Board of Education shall determine as shown by the June reports the total amount to which each high school is entitled for the entire year. The state board shall then subtract from the total amount to which each school is entitled, the amount such school has already received, and it shall thereupon apportion the balance to such school.⁵³ The State Board of Education in addition to the above required reports is authorized to fix certain standards for the high schools to comply with. One of the most important of these requirements is the fixing the length of the school year at not less than 35 weeks.

By the method stated above the state aid from the state high school tax passes directly from state control to the local unit, in the form of county or city high school districts, for disbursement.

In the disbursement of the proceeds from the taxes for special purposes statutory provision permits these funds to be used only for the purposes for which they were raised.⁵⁴

53. Utah General School Laws, sec. 4580, p. 19

54. Ibid., sec. 4626, p. 33

BONDS.

The boards of education in either the high-school city districts or county districts are authorized to sell bonds for the purpose of raising money to purchase sites for buildings, or other permanent improvements. The proceeds are to be used exclusively for the purposes for which they were issued.⁵⁵

55. Ibid., sec. 4634, p. 36

V.

CONDITIONS OF PARTICIPATION.

REQUIREMENTS
PLACED UPON THE
STATE FOR FEDER-
AL AID.

The state department of education makes no requirements upon the county as such for reports, but instead makes its demands upon the high school county district. The following discussion will take up in order the requirements for participation in aid to high schools from federal, state, and county units.

The state of Utah accepted the terms and provisions of the Smith Hughes Act, and in compliance with this law has carried out a practical program for vocational training including (1) vocational agriculture, (2) home economics, and (3) trades and industrial training. Every school or activity under this act must be approved by the Vocational Board of Education, before the school is entitled to share in federal and state funds not to exceed 50% of the teacher's salary. Each state is permitted to formulate its own plan, subject to the approval of the Federal Government. Utah has placed the following plan in practice.

The requirements fall into two general classes: 1, Requirements pertaining to curriculum; 2, Requirements pertaining to length of the school day and the school program. The high-schools may establish day schools, part time or evening schools and classes in agriculture and in farm mechanics. Each of these schools must include as a part of the course farm practice work on a commercial basis covering at least six months. The

classes in day schools of agriculture must devote half time to instruction and demonstration work in agriculture, farm mechanics, and home practice work. To carry out this work, six types of schools have been established. They are the, (1) part time trade extension schools, (2) part time trade preparation schools, (3) part time general continuation schools, (4) evening trade and industrial schools, (5) all day unit trade schools, and (6) general industrial schools. Of these, three types, the part time general continuation schools, the evening trade and industrial schools, and all day unit trade schools, have been the most successful.

REQUIREMENTS PLACED
UPON HIGH-SCHOOL DIS-
TRICTS FOR STATE AID

Almost unlimited authority
is given to the State Board of
Education to fix minimum standards

which high schools must meet. The law states that no city or district shall be entitled to any part of funds derived from the state tax for high schools unless the high school is maintained upon the standard and for the period of the year that may be fixed by the State Board of Education. To receive the state high-school aid, two reports must be sent to the Department of Education. The first report is sent on the last Monday of January from each high school district. This report must contain a record of the actual number of students enrolled in each high school, and an estimate of the actual number who will attend for a period of at least 20 weeks during the ensuing school year. On the second Monday of June, a second report must be sent into the State Department of Education. This report must show (1) the actual number of students enrolled who have been in actual attendance for at least 20 weeks; (2) the daily average attendance; and (3) any additional information that the State Board of Education may require to enable it to determine the standard of the school.⁵⁶

On the first Monday in October of each year, the board of education or school board of any city or school dis-

56. Utah General School Laws, 1921, sec. 4578, p. 18

trict in which a high school is established must notify in writing the State Board of Education of the establishment of such high school and the intention of such city or district to claim the benefits of the high-school fund.⁵⁷ High schools are

stimulated to minimum standard requirements not only by the reports sent in but also by means of personal supervision. To enforce rules and regulations made by the Department of Education, a state inspector of high schools is appointed, whose duty it is to visit each high school at least once a year.⁵⁸

The State Board of Education is the authority which is empowered by law to fix the requirements which Utah high schools must meet in order to be eligible for participation in the state high school funds. The requirements are as follows:

1. Each high school shall provide equipment for the courses which it offers. Standard equipment is determined by the State Board of Education. These standards are maintained by visitations of the state high school inspector and the reports thereof.

2. Each school shall be in session for actual instruction at least thirty-five weeks in each school year, including legal holidays, provided that one week of the thirty-five may be used in attendance at the Utah Educational Association.

3. Senior high schools shall require for entrance the completion of a junior high school course as outlined in the course of study or the equivalent of such a course, and for

57. Ibid., sec. 4576, p. 17.

58. Ibid., sec. 4577, p. 17.

graduation 12 "units" or 36 credits of work above the ninth grade.

4. All students for whom apportionment of state funds is allowed shall carry with a passing grade during their attendance three-fourths or more of a full course.

5. Teachers in senior high schools shall hold a high school certificate issued by the State Board of Education. A high school certificate is one issued to a graduate of a standard college course or the equivalent. The course must include 21 credits in professional subjects.⁵⁹ The holder of such a certificate receives a life certificate after having completed two years of successful teaching.⁶⁰

The authority of the state board of education reaches farther than to the administration of the school system. It is empowered also to indicate how school houses are to be built and what building provisions shall be made. The code controlling these provisions includes standards for construction, heating, ventilation, sanitation, lighting, safety from fire, and anything to promote safety and health.⁶¹ In accordance with the enforcement of the above code, the State Legislature of 1921 passed a law as follows: "No school building or addi-

59. Utah Superintendent of Public Instruction, Report, 1918-1920, p. 36 - 37.

60. Ibid., 1916-1918, p. 17

61. Utah General School Laws, 1921, Ch. 94, sec. 2, p. 78.

tion shall be contracted for or erected in any school district until plans and specifications are submitted to the Superintendent of Public Instruction".⁶²

Utah is one of the 17 states of the union requiring physical education to be taught in the public schools of the state. The state board of education has made provision for a state director of health education, who shall exercise general supervisory control of health education, and recreation. He shall also advise with local Boards of Education in regard to organization and effective means of preserving and promoting health and the physical welfare of school children.⁶³

A former paragraph has set forth the conditions for participating in federal aid under the Smith-Hughes law. State aid for vocational training is granted to the high schools on the same bases and conditions as is the federal aid. The State Board of Education is designated as the State Board of Vocational Education,⁶⁴ and has authority to establish rules and regulations governing the organization and administration of part time classes and the expenditure of money for the promotion of vocational education.⁶⁵ In view of her vocational training program, Utah has seen fit to pass a Part-time Compulsory Attendance law, compelling any minor between sixteen and eighteen years of age who has completed the eighth grade to attend school at least thirty weeks each school year.⁶⁶

62. Ibid., Ch. 94, sec. 1, p. 78

63. Utah General School Laws, 1921, Ch. 85, sec. 1, p. 71

64. Utah Session Laws, 1919, Ch. 86, sec. 3

65. Ibid., Ch. 92, sec. 4

66. Ibid., sec. 1

In the preceding discussion it has been shown that the power of the department of education is almost unlimited in its authority to establish standards for the high schools to maintain. The minimum requirements of the state for high schools, under the careful supervision of the state high school inspector, have resulted in a high degree of secondary school efficiency. The standards to be maintained have been definitely set forth. What uses Utah makes of her funds shall be revealed in the following discussion.

USES OF FUNDS.

Utah makes no stipulation as to the uses of funds granted by the state for the use of high schools. Before the aid is apportioned to the districts, however, the salary and travelling expenses of the state high-school inspector is paid out of the state high-school fund.⁶⁷

There are no restrictions placed on the use of the local funds in the school district, except in a general way, namely: the different funds must be used for the purposes for which they were raised. As a whole, the local school board is permitted to express considerable laxity in the expenditure of its funds. What the results of this policy are will be seen to a certain extent in the following discussion.

67. Utah General School Laws, 1921, sec. 4582, p. 19

VI.

RESULTS OF THE PRESENT SYSTEM.

ACCESSIBILITY
TO HIGH SCHOOLS.

One measure of the efficiency of the school system of a state may be found in the ratio of the number of students in high school to the total population. If we compare such a ratio with similar ratios for other states and for the United States as a whole, we at once are able to reach certain important correlative conclusions as to how well the state under consideration is discharging her educational responsibilities in comparison with other states and with the United States as a whole. Table 9 indicates the number of high school students in the states having the highest and the lowest numbers per 1000 population, and the average for the United States in 1918.

TABLE 9. Students in high school to each 1000 in the total population in 1918.^a

State	Number of high school students per 1000 population
South Carolina	5.3
California	27.0
Utah	20.2
United States	15.6

a. Bureau of Education, Bulletin, 1920,
No. 19, p. 48

Table 9 shows that Utah ranks well above the average for the United States as to the number of high school students per each 1000 population. There is a differential of 4.6 students per 1000 population between the average for the United States and that for Utah. Therefore Utah is giving high-school training to nearly 4.6 more people out of every 1000 persons than the United States is doing on an average. South Carolina and California have been selected to express the extremes in the number of students per 1000 persons that the various states are reaching. From these ratios it will be seen that Utah stands among the foremost states in providing secondary education for its people. But high school enrolment has been increasing at an ever accelerating rate. Especially is this true of Utah from 1918 to 1920. From computations on 1920 data, it is found that Utah has 45.2 high-school students to every 1000 persons of its population.⁶⁸ This is 18.2 students more than for California in 1918, and is an increase of more than one hundred per cent for Utah herself since 1918. The 1920 data for California high-school enrolment shows an increase of but 43.9% over her enrolment of 1918.⁶⁹ This rate of increase would give her 38.7 students per 1000 population at present.

68. The total population of Utah in 1920 was 449,446 and high school population including part time students was 20,357 students.

69. California Superintendent of Public Instruction Report, 1918-1920, p. 175.

The universalizing of secondary education is advancing with rapid strides in Utah. Where South Carolina was raising revenue to support five pupils in high school to each 1000 population, Utah was keeping 21.5 students in high school to each 1000 population in 1918, and now has 45.2 high-school students to each 1000 population. The democratizing of high-school education must needs demand ever increasing expenditure of revenue. How this situation is met in Utah will be seen later. The larger the taxing unit, the better chance there is of equalizing school revenues and therefore educational opportunity. Utah has already established the county as the local taxing unit. By this method the less wealthy sections of each county have the same opportunity of obtaining an education as the wealthier section of the county.

INCREASE IN EN-
ROLLMENT FOR
STATED PERIODS FOR
VARIOUS STATES AND
THE UNITED STATES.

The report of the Department of Public Instruction of Utah furnishes accurate data for the period 1910 to 1920 to show the increase in high school enrolment. In 1910 there were 4261 students enrolled in high schools. By 1920 this number had increased to 20,357 students. If the number of part time students is subtracted, there are left 14,257 regular day students. These figures indicate an increase of 234% over those for 1910. If the part time students are included, there is an increase of 377% over the enrolment of 1910. The increase in enrolment in high schools for the United States for the period 1910 - 1918 was 79.7%.⁷⁰

70. Bureau of Education, Bulletin, 1920, No. 11, p. 14

The high-school enrolment in the United States in 1910 was 915,061 students, and in 1918 was 1,645,171 students.⁷⁰ Data for 1920 high-school enrolment in the United States was not available at this writing.

Table 10, - shows the increase in high school enrolment for the periods 1910 - 1918, and 1910 - 1920.

TABLE 10. Increase in high school enrolments.

I. High School Population for 1910, 1918, and 1920.

Unit	1910	1918	1920
Utah	4261 ^a	10,097 ^b	20,357 ^c
United States	915,061 ^b	1,645,171 ^d	----

II. Per Cent of Increase

	1910 - 1918	1910 - 1920
--	-------------	-------------

Utah	134.6%	377. %
United States	79.7%	---

- a. Utah Superintendent of Public Instruction, Report, 1918-1920, p. 20
- b. Ibid., p. 20
- c. Ibid., p. 20
- d. Bureau of Education, Bulletin 1920, No. 11, p. 14.
- e. Ibid., p. 14.

The above table makes evident the fact that the enrolment in high schools is increasing very rapidly. That the increase is general is quite apparent, and in certain states, as in Utah, is tremendous. The increase in the number of students seeking a high school education will no doubt mean an additional expenditure for secondary education and in all probability a reorganization of the sources of revenue for the maintenance and support of the high schools. The number of students per teacher has increased 3.5%. This increase of teachers is not due to an increase in the establishment of small high schools, as Utah, under the county unit organization of schools, has few small high schools, but to the increased enrolment in the high schools.

NUMBER OF STUDENTS
PER TEACHER.

The teaching load in high schools has decreased in the United States from 25.5 in 1900 to 20.3 students per teacher in 1918.⁷¹ The decrease indicates that the high schools are giving greater opportunity for more intensive work. How does this average for the United States compared with that for Utah for a similar period? It is impossible to find data for Utah for 1910, but in 1918 Utah averaged 18 students per teacher in all high schools. In 1920 she had 21.3 students per teacher. The number of teachers for this period 1918 - 1920 increased 19%, while the number of

71. Bureau of Education, Bulletin, 1920, No. 19, p. 32

a. Computed from data in Superintendent of Public Instruction Report, 1918 - 1920.

regular day high-school students increased 41%.

STATUS OF THE
TEACHING FORCE.

However brief a survey of the school system of a state is it ought to include some consideration of the qualifications and fitness of the teaching force. The requirements for certification of teachers in the Utah high schools are on a par with those of the more progressive states of the Union, namely: a bachelor's degree with required training in the professional subjects, and a stated number of years experience.⁷³ With few exceptions the high-school teachers of Utah satisfy the minimum requirements. Where teachers' qualifications are high, we may expect high salaries. Table 16, will indicate whether Utah is paying good salaries to her teachers as compared with those paid by other states. Highly qualified teachers are available to a district only in proportion to its ability to pay good salaries. A poor district, however progressive, is unable to obtain this kind of teacher, unless provided with the means from outside the local community. The following discussion will show what inequalities exist due to the unequal distribution of wealth and other factors.

72. Bureau of Education, Bulletin, 1921, No. 22, p. 174.

INEQUALITIES IN PRESENT SYSTEM.

EXPENDITURE PER
CHILD IN VARIOUS
HIGH SCHOOLS.

Unequal ability to finance a school system may be expressed in several ways. A fairly just method

to show the inequalities of educational opportunity in the various localities is to discover the comparative cost of instruction per capita enrolled student in the several districts. Allowing for slight discrepancies due to uncontrollable factors, too wide a range in the per capita costs is indicative of unequal burdens in financing the school system. By comparing the tax rates and the wealth behind each child in several districts, it is possible to arrive at some index of the various districts' ability to support a school system, as well as of their need for outside aid.

The cost of instruction per capita enrolled student is computed under the county unit system which levels out many inequalities found in district systems of the traditional type, such as inequalities in rates of taxation, but the county is not sufficiently large to do away with inequalities to a maximum degree. The inequalities in the expenditure per capita for instruction is shown in Table 11, which follows. The cost per capita was computed by dividing the cost of high-school instruction by the number of high-school students in the district.

TABLE 11.—Costs of high school
instruction per capita.

Group	No. of Districts	No. of children	Cost of high school instruction per capita
I	2	197	\$195 - \$255.00
II	2	246	185 - 194.99
III	0	----	175 - 184.99
IV	0	----	165 - 174.99
V	3	541	155 - 164.99
VI	1	175	145 - 154.99
VII	3	3598	135 - 144.99
VIII	3	552	125 - 134.99
IX	3	376	115 - 124.99
X	3	2265	105 - 114.99
XI	4	2285	95 - 104.99
XII	1	668	85 - 94.99
XIII	4	1332	75 - 84.99
XIV	3	791	65 - 74.99
XV	3	765	Under \$ 65.00

Total No. 35

13,791

Minimum
\$65.00

Maximum
\$255.00

Average Cost
\$111.86

Median Cost
\$113.32

- a. Utah Superintendent's of Public Instruction
Report, 1918-1920, Statistical Department,
pp. 1 - 10.

From Table 11, we see that the range in per capita cost of instruction is from \$65.00 per capita for Group XV to \$255.00 for Group I. This is approximately four times as much for Group I as for Group XV, which is too great a difference in maintaining a school system regardless of what

factors we take into consideration. Here is sufficient evidence to indicate that a more equal distribution of educational opportunity should be made. The median cost is found to be \$113.32, and the average \$111.86. This would indicate that less than one-half of the schools were able to pay well to educate their high-school students and that more than a half of the schools paid less than the average per capita cost of instruction for the state. The unequal expenditure per capita may be expressed in another way. It is found that 3556 students or 25.7% of the total enrolment receive but from \$65 to \$95 per capita for high-school education, and that 4757 students or 34.5% of the students enrolled get from \$145 to \$255 per capita from the public for their education. The middle forty per cent or 5478 students have from \$95 to \$145 expended per capita to give them an education. The 34.5% of the students who live in the districts that are expending from \$145 - \$255 will have an incomparably better opportunity for an efficient high-school education than the 25.7% who live in those districts which pay from \$65 to \$95 per capita.

The preceding discussion has shown the inequalities that exist among local communities in the expenditure for high school education. The aim of a state school system should be to even out these inequalities to the maximum degree. The method of distributing aid can do much to accomplish this end. The poorer districts can be stimulated to renewed effort, and the richer be made to bear greater responsibilities. The following discussion will reveal whether the method used by

Utah is equalizing educational opportunity and the financial ability to operate the school system. Table 12, shows the distribution of state high-school aid. It will be recalled that the aid from the 0.2 mill state tax is granted to the high schools on an attendance basis per capita. The variation per capita is due to a poor and irregular attendance in certain districts, since only those who have been in attendance at least 20 weeks can claim aid. The range in the aid per capita is from \$3.84 in Group IX to \$12.07 for Group I.

TABLE 12.—Aid from state high-school tax proceeds per student in average daily attendance.^a

Group	No. of dists.	No. of children in group	Per cent of total No. students in group	Aid per student in average daily attendance.		
					Am't of aid rec'd	% of all aid
I	1	192	1.3%	\$12 - 12.99	\$ 2319.58	1.7%
II	4	978	6.7%	11 - 11.99	11,474.48	8.8%
III	5	814	5.7%	10 - 10.99	8,508.00	6.5%
IV	9	7779	54.5%	9 - 9.99	73,500.00	56.4%
V	7	2920	20.4%	8 8.99	25,404.00	19.5%
VI	4	893	6.2%	7 7.99	6,703.00	5.1%
VII	4	400	2.8%	6 6.99	2,604.90	2.0%
VIII	2	227	1.6%	5 5.99	1,303.24	1.0%
IX	1	64	.4%	3 4.99	246.00	.2%
Total	37	Number of children 14,267		Median Aid \$9.05	Average Aid \$9.13	
Minimum		Maximum				
\$3.00		\$12.00				

a. Utah Superintendent of Public Instruction, Report, 1918 - 1920, Statistical Report, pp. 1 - 10

It is quite evident that granting aid on a per capita student basis penalizes the smaller district and aids the larger district. The lower eleven districts, which are about 30% of the districts get but 8% of the total aid granted all the schools, while group IV, or nine districts which are about 25% of all the districts receive 56% of all the aid. Salt Lake City alone, which is included in Group IV, consisting of nine districts, receives almost one-fourth of all the aid granted high-schools. When aid is apportioned on a per capita basis the state loses sight of the facts that a smaller school needs a larger teaching corps in proportion to the number of students, and that the largest schools are generally located in communities where the wealth is most highly centralized. By finding out what per cent the state aid is of the cost of instruction per capita, Table 13 will attempt to show whether the state aid is apportioned to the several districts according to their ability to finance the schools.

TABLE 13.—Per cent high-school aid is of cost of instruction per capita, 1919-1920.^a

No. of Districts	Per cent of all dist.	Per cent aid is of cost of instruction
3	8 1/3 %	21% - 21.9%
0	0	16% - 16.9%
2	5 5/9 %	15% - 15.9%
2	5 5/9 %	14% - 14.9%
4	11 1/9 %	13% - 13.9%
2	5 5/9 %	12% - 12.9%
3	8 1/3 %	11% - 11.9%
3	8 1/3 %	10% - 10.9%
2	5 5/9 %	9% - 9.9%
3	8 1/3 %	8% - 8.9%

(Continued on next page.)

Table 13. (Continued)

No. of Districts	Per cent of all dist.	Per cent aid is of cost of instruction	
4	11 1/9 %	7%	- 7.9%
1	2 7/9 %	6%	- 6.9%
3	8 1/3 %	5%	- 5.9%
2	5 5/9 %	4%	- 4.9%
2	5 5/9 %	3%	- 3.9%
Total 36			
Minimum 3%	Maximum 21%	Median 10.4%	Differential 18%

a. Data in this table computed from Report, Utah Dept. of Education, 1918 - 1920.

Two districts receive from the state only 3% of their per capita cost of instruction. On the other hand, there are three that get between 21% and 22% of this cost from the state. The differential is wide, however it is not too wide were it apportioned upon the basis of the districts valuations in wealth and consequent ability to finance the schools. Table 14 compares eight high-school districts as to local tax rates, high-school state aid per capita, cost of instruction per capita, and wealth behind each child enrolled in the public schools.

Table 14. - Comparisons between local tax levies, cost of education per capita, aid per capita from the state mill high-school tax, and wealth behind each enrolled child of school age.^a

No. of Sch. Child. enrolled in sch.	District	Local tax levy	Cost of Edu- cation per capita	Aid per capita from State	Wealth behind each enrolled child of sch. age	Per cent state aid is of cost of education
528	Davis	4 mills	\$ 67.12	\$ 8.16	\$ 5,309.00	12%
521	Cache	5 mills	84.20	9.69	6,604.72	11%
668	Box Elder	5.1 mills	85.55	8.98	6,645.30	10%
417	Logan	5.2 mills	54.83	11.43	2,528.21	20%
175	Murray	5.2 mills	149.44	9.66	3,464.00	6%
101	Beaver	8 1/2 mills	255.79	11.16	5,347.90	4%
118	Kane	11 mills	119.07	6.56	3,232.20	5%
83	Wayne	11 mills	49.78	13.37	2,014.40	26%
64	Garfield	13 mills	118.95	3.84	1,918.06	3%

a. Compiled from Utah Auditor's Report, 1920, p. 45, and
Superintendent of Public Instruction, Report, 1918 -
1920, Statistical Report, pp. 1 - 10.

From the preceding table it is seen that Beaver District levies a tax of 8 1/2 mills and thereby is able to raise \$255.79 per capita for high-school students, while Kane levies a tax of 11 mills and is able to raise only \$119.07 per capita for the education of the high-school students in the district. Beaver has a property valuation of \$5,347.90 behind each school child, while Kane has a valuation of \$3,014.40 behind each child in the district. Beaver gets \$11.16 aid per capita or a total \$888.60⁷³ from the state and has an enrolment of 101 high school students. Kane, on the other hand, receives \$6.56 aid per capita and a total \$738.80⁷⁴ from the state and has an enrolment of 118 high school students. In summarizing the data for these two districts, we find that Beaver pays 2.15 times as much for the education of her high-school students as does Kane, that she levies about three-fourths as large a tax, that she has 1.77 times as much property behind each school child enrolled as has Kane, that she receives 1.23 times as much aid from the state as Kane does, and has seventeen less children enrolled in the high-school than has Kane District. Considering the above facts, it is evident that there is nothing like equality of financial ability to support the schools in the several districts. If Davis District and Garfield District are compared by the same method, we find that

73. Utah Superintendent's of Public Instruction, Report, 1918-1920, Statistical Report, p.5

74. Utah Superintendent of Public Instruction Report, 1918-1920, p. 4

Davis receives 29 times as much aid as Garfield, levies a tax one-third as large, but educates only four times as many high-school students as Garfield. Many other comparisons revealing the same inequalities could be shown by examples taken from Table 14.

The Biennial Report of the Department of Education for the years 1918 - 1920 says, "Some of the richer districts can produce by a one mill tax as much as \$10.00, per capita, while in poorer districts a one mill tax will produce no more than \$1 per capita".⁷⁴

Closely related to the ability to finance a school system or the amount of wealth in a district are the salaries paid to the teachers; that is to say, one index of the efficiency of any school system may be determined by noting the salaries paid the teachers. Other things being equal, where the best salaries are paid there are usually found the best qualified teachers. Table 15 shows the average salaries of men and women teachers and of principals in Utah for the year 1917 - 1918 (later data was not available).

TABLE 15.—Average salaries of high-school teachers in several high school county districts of Utah for the years, 1917-1918.^a

District	Type of dist.	Enrolment in high school	Salary of men teachers.	No. of male teachers.	Salary of women teachers.	No. of women teachers.	Salary of Prin.	No. of Prin.	Tax rates.
Box Elder	R.	668	\$ 1111	14	\$ 787	11	\$ 1900	1	5 1/2
Ogden	C.	866	1261	13	1096	16	2500	1	8 mills
Park City	C.	134	1110	2	1063	4	1950	1	-
Beaver	C.	101	865	4	701	2	1300	1	8 1/2 "
Carbon	R.	191	1331	4	1096	3	1700	1	4 mills
Ducheane	R.	194	1034	2	722	5	1500	1	7 "
Kane	R.	118	1224	2	1000	3	1600	1	11 "
Millard	R.	195	1032	3	866	4	1500	1	4 "
Nor. Summit	R.	99	1088	2	661	3	1400	1	-
Wasatch	R.	192	1003	3	850	3	1500	1	7 "
Jordan	R.	673	1272	14	1085	10	2016	1	-
Alpine	R.	698	1213	18	1027	6	1616	3	8 "

a. Utah Superintendent's of Public Instruction, Report,
1918 - 1920, Financial Report, pp. 1 - 13.

Thus we may compare Carbon and Millard in factors that should make for equality in educational efficiency, and ability to pay similar salaries for their teachers. It is found that both levy tax rates of 4 mills. Carbon has an enrolment of 191 students and Millard has 195 students; both have 7 teachers. To express the difference in what each district is willing to do, it is seen that Carbon pays \$1,331 for its men teachers and \$1,096 for its women teachers and \$1,700 for its principal; while Millard pays \$1,032 for its men teachers, \$866 for its women teachers, and \$1,500 for its principal. It would be expected that Carbon would have the more efficient school system of the two districts. In comparing similar conditions for Box Elder and Jordan it is found that having the same enrolment, Box Elder pays \$1,111 for its men teachers, \$787 for its women teachers, and \$1900 for its principal; while Jordan pays \$1,272 for its men teachers, \$1,085 for its women teachers and \$2,016 for its principal. Although Jordan employed one less teacher than Box Elder, it aggregated in expenditure for teachers' salaries \$4,563 more, than did Box Elder. Jordan in all probability had the more efficient school system. Enough has been said to show that under local control dependent upon local initiative, uniform standards of school efficiency are not maintained.

We have now studied Utah's school system, method of support, and scale of salaries in the state. It will be well to compare her salaries with those of other states of

the Union. Bonner has found the average salaries of sixteen states. Table 16 shows how Utah ranks among several of the other more progressive states. It is found that Utah ranks second, only California surpassing her. Utah exceeds the average salary for the United States by \$239.00. If the value of property in the states is taken into consideration, Utah ranks 40 among the states of the Union,⁷⁵ yet under the present school system, Utah is willing to pay second to the highest for its teachers.

TABLE 16.—Average annual salaries in several states and for the United States in 1917-1918.^a

State	Salary
California	\$ 1355
Utah	1270
Massachusetts	1248
Washington	1066
South Dakota	884
Wyoming	725
New Mexico	724
Florida	694
Maine	652
United States	1031

a. Bureau of Education, Bulletin, 1920, No. 11, p. 43.

75. Bureau of Education, Bulletin, 1920, No. 11, p. 153

NEEDS AND PROVISIONS.

RELATING TO
ORGANIZATION.

When county administration in Utah became established over the local units, a great step had been taken towards the realization of ideals which were in the process of formation. Boards began to seek well qualified superintendents. Competent supervisors were sought. All these factors have led to a high standard of attainment under the close supervision provided by the state board of education. The county as a controlling local unit has been a step in advance to even out educational inequalities, but it will be impossible to even out inequalities to a maximum until the state employs the teachers, pays their salaries, enforces a uniform length of school year, and definitely specifies the qualifications of the teachers and the grade of instruction. This situation can not come about until there are larger amounts of funds distributed by the state to the several constituent units. The amount apportioned in Utah should be increased either by direct appropriation or by a modification of the constitution, preferably by a state tax. To what extent should it be increased? Enough to pay the salaries of the teachers, or about three-fourths of the total cost of education.

While the above process may be suggested as the best, it is doubtful whether the people of Utah are ready for it. In that case it is suggested that some provision be made by the legislature by which the county school district can levy suffi-

cient taxes to maintain proper schools. As stated before, the district is restricted in the rate of taxes it can levy.

It has been shown that state aid is not always granted to the districts in proportion to their ability to support their schools. Utah grants aid to its high schools on a per capita basis according to average daily attendance which seems far from equitable. To equalize school burdens, the following method might be followed, which is modelled partially after the plan used by California.

1. The state shall contribute annually such sum per pupil as shall constitute three-fourths of the per capita cost of education of the high school student.

2. One-third of the school is apportioned to recognize high schools, irrespective of attendance, two-thirds shall be apportioned among such schools pro rata upon the basis of average daily attendance.

3. The money is to be used for the payment of teachers' salaries.⁷⁶

76. Minnesota State Board of Education, Report, 1920, Revision of State Aid, p. 84

CHAPTER II.

STATE AND COUNTY AID TO HIGH SCHOOLS IN NORTH DAKOTA.

I.

GENERAL INTRODUCTION TO THE PRESENT SITUATION.

SCHOOL CENSUS
IN NORTH DAKOTA

In order to obtain a clearer idea of the school system and method of support in North Dakota it will be necessary to give certain data on the general educational situation. A clearer insight can perhaps be gained if we consider the number of children that North Dakota must educate, and the proportion of those who should be receiving a high school education. Table 1, which follows, attempts to reveal the more important aspects of the educational situation.

Table 1. School population, attendance and enrollment in North Dakota, 1919-1920.

1.	Total public school census	-	-	-	-	203,829 ^a
2.	Total high school enrolment	-	-	-	-	14,680 ^b
3.	Total high school census	-	-	-	-	53,256 ^c
4.	Population of high school age not in any school-					38,576 ^c
5.	Total elementary school population enrolled	-				149,688 ^d
6.	School population enrolled in private schools	-				500 ^e

a. North Dakota Superintendent of Public Instruction, Report, 1918-20, p. 69.

b. Ibid., p. 72.

c. Computed from data in Table 1.

d. Ibid., p. 70.

e. Bureau of Education, Bulletin, 1920, No. 3, p. 42.

Table 2.— Proportion that high school population is of school census.^a

1.	Per cent total high school census is of total school census	26.1%
	census - - - - -	
2.	Per cent enrolled high school census is of total school census	7.2
	census - - - - -	
3.	Per cent high school population not in attendance is of total high school census	18.9
	- - - - -	
a.	Computed from data in Table 1.	

From Table 1, it is seen that North Dakota has a school enumeration of 203,829 children of school age (6-20 years). The school census law requires an enumeration to be made between the first and twentieth of June of each year.⁷⁶

Of the 203,829 children of school age in the state there are 14,680 enrolled in the public high schools, and 500 enrolled in the private schools.⁷⁷ The above figures indicate that there are about 38,576 persons of high school age, who are not in school. There is reason to think that these estimates are about correct as the ratios correspond very similarly to those found by Bonner for the period 1917-1918.⁷⁸

Assuming that approximately 38,576 children of high school age are not being reached by any educational agency, North Dakota according to this estimate is failing to reach 63% of her population of this age. There is a large field for improvement here. A part time compulsory school law would affect these figures greatly but

⁷⁶North Dakota General School Laws, 1919, Sec. 1195, p. 63.

⁷⁷Bonner states that 2.8% of school population (5-18 yrs.) old are enrolled in private schools, for the period 1917-1918. See Table 1.

⁷⁸Bureau of Education, Bulletin, 1920, No. 11, p. 94.

would probably entail a change in the method of support for high schools.

IMPORTANCE OF HIGH
SCHOOL FINANCE IN
THE SYSTEM OF SCHOOL
SUPPORT

A study of the high school finance of any state will of necessity include for comparative purposes the financial con-

dition of the elementary schools of the state as well as the high schools. Often times, too, no separate accounts are made for the elementary school and the high school. The two schools have common sources of revenue and make disbursements from a common fund.

Moreover, the per cent of the funds that the high school is receiving compared to the elementary school has a bearing on our problem.

Therefore, it is necessary to discover the public school funds in general before proceeding to that of the high school. Table 3 indicates what funds are available for public school support.

Table 3. Funds available for public school support in North Dakota, 1919-1920.

Total receipts of public school revenue	- - -	\$16,919,138.74 ^a
Total expenditure for public schools	- - -	12,716,526.65 ^b
High-school expenditure	- - - - -	2,416,140.06 ^c
Elementary school expenditure	- - - - -	10,300,126.59 ^c

a. North Dakota, Superintendent of Public Instruction, Report 1918-1920, p. 78.

b. Ibid., p. 78.

c. Computed as in following paragraph.

Table 3 indicates what funds are available for public school support.

The total expenditure for public schools for the same period, 1919-

1920, was \$12,716,526.65.⁷⁹ The Department of Education of North

Dakota makes no separate account of the running expenses of elemen-

tary and high schools. It was necessary therefore to base the es-

timates on the data given by Bonner for 1917-1918, on the costs of

instruction for the high school, and on that of the elementary and high school, for North Dakota. Bonner gives the cost of instruction for the high school alone as \$860,799⁸⁰ and for the elementary and high school as \$4,685,125.00⁸¹. The high school cost of education therefore constitutes 19% of the total cost of instruction of high school and elementary school. Carrying this ratio over to the data on expenditure for 1920 gives the sum of \$2,416,140.06 for high school instruction.

UNIT COSTS IN
EDUCATION IN
NORTH DAKOTA

It is well known that the cost of high-school instruction is several times as great as that of elementary instruction. Whether this is as it should be and to what extent it should be more expensive, has not been discovered as yet. By finding the unit costs of education for the elementary school and the high school in North Dakota, it will be possible to understand better the educational situation as it exists in that state. By comparing the ratio between elementary schools and high schools in North Dakota with that of other states, it will be possible to arrive at a standardized balance between these costs. Bonner found that the average ratio for 9 states was 2.67 between elementary and high school costs.⁸² Table 4, which follows, will show the cost of education per capita and the ratio these bear to each other.

⁷⁹ North Dakota Superintendent of Public Instruction. Report. 1918-1920, p. 78.

⁸⁰ Bureau of Education, Bulletin. 1920. No. 19. p. 183.

⁸¹ Bureau of Education, Bulletin. 1920. No. 11. p. 136.

⁸² Bureau of Education, Bulletin. 1920. No. 11. p. 77.

Table 4. Important factors in unit costs in high school education for North Dakota, 1919-1920.

1.	Per cent which cost of high school is of total cost of education	- - - - -	19.0% ^a
2.	Total expenditure per capita in the public school	-	\$72.56 ^b
3.	Total expenditure per capita ⁱⁿ elementary school	-	68.40 ^c
4.	Total expenditure per capita high school student enrolled in public school	- - - - -	164.58 ^b
5.	Ratio between elementary cost per enrolled student and high school cost per enrolled student	- - - - -	2.40
6.	Expenditure per high school pupil for purposes other than teacher salaries	- - - - -	94.43 ^d

a. Computed from data in Table 1.

b. Computed from data in Table 1 and Table 3.

c. Computed from data in Table 4.

d. Computed from data given for the average salaries of high school teachers in High School Inspectors Report, 1921.

Table 4 reveals the cost of high-school education per enrolled student to be \$164.58, and the cost of elementary education per enrolled student to be \$68.40. The cost of educating the high school student is therefore 2.40 times as much as educating the elementary pupil. This ratio is high, but not so high as Bonner found for nine states, (2.67 ratio).⁸³

The index of the educational progress of a state may be indicated by the expenditure a state is willing to make for purposes other than instruction alone. Table 4 shows that North Dakota spends \$70.15 per pupil for purposes other than teachers salaries and \$94.43 for teachers salaries. The ratio then is 1.34 times as much in high schools for teachers salaries as for other expenses. From Bonner's data it was found that the ratio for nine states was

⁸³Bureau of Education, Bulletin, 1920, No. 19, p. 77.

1.61⁸⁴ times as much for purposes of instruction as for other purposes. He includes under the cost of instruction the salary of teachers and the cost of high school textbooks and supplies used for instruction, while the data for North Dakota is for teachers' salaries alone. In the first case above, the cost of teachers salaries is 57% of the cost of high-school education, while in the second case the cost of instruction is 61.6% of the cost per capita of high school education. Considering that the cost of textbooks represents only 3% of the total expenditure of the school dollar,⁸⁵ the ratio 61.6% will not be materially affected for including these two items.

II.

FEATURES PECULIAR TO SCHOOL ORGANIZATION AND HIGH-SCHOOL SUPPORT.

GENERAL ORGANIZATION AND GOVERNMENT OF THE SCHOOL SYSTEM

How well a state administers to
to the educational needs of its people
will depend greatly on the organiza-

tion of the controlling unit. It has been noted in a preceding chapter that Utah has the county organization as the controlling unit. North Dakota, on the contrary, has the district, as the controlling local unit of school organization. There are four forms of school districts provided for in North Dakota, namely:⁸⁶

1. Common School Districts.
2. Special School Districts.
3. Independent Districts.
4. Districts in certain cities.

⁸⁴Bureau of Education, Bulletin, 1920, No. 11, p. 78.

⁸⁵Bureau of Education, Bulletin, 1920, No. 11, p. 62.

⁸⁶North Dakota General School Laws, 1919, Article 10, p. 47.

Common school districts are administered by a board of three members. This is the form of district usually found in rural communities, where the one teacher school prevails. Common districts are authorized to establish high schools whenever a district contains four or more schools and has an enumeration of sixty or more persons of school age living within the district. Such high school shall be kept in session not less than four months during the school year.⁸⁷ Consolidation is provided for in the following section which states that two or more adjacent school districts may join for the purpose of maintaining a high school.⁸⁸

Special school districts are formed whenever any plotted or incorporated city, town or village constituting a portion of a common school district may desire to form a district for itself.⁸⁹ The administrative board shall consist of five members. This board shall have power to establish and maintain a high school within the district.⁹⁰

A city which has been organized under the special school district may become incorporated into an independent school district.⁹¹ It shall then have an administrative board consisting of one member from each ward in the city, and when the city is divided into an even number of wards, then such city shall elect one member at large. When the city is divided into an odd number of wards, such city shall elect two members at large.⁹² The authority of an inde-

⁸⁷ North Dakota General School Laws, 1919, Sec. 1192. p.63.

⁸⁸ Ibid., Sec. 1194. p. 63.

⁸⁹ Ibid., Sec. 1230. p. 73.

⁹⁰ Ibid., Sec. 1251. p. 78.

⁹¹ Ibid., Sec. 1286. p. 93.

⁹² Ibid., Sec. 1290. p. 94.

pendent district to establish and maintain high schools is contained in a general statement which gives it the power to organize and establish schools in the district as it shall deem them requisite and expedient for the welfare of the district.⁹³

In case a city is not organized under the general law as stated above, a board of education consisting of seven members⁹⁴ is elected at large from the city. This type of district is little used and usually reverts to the independent district or special district.

Under the organization of different types of school districts, it is well to state something of the progress made by consolidation in North Dakota. Their law states that a school board may call an election, or a certain per cent of voters may petition for an election to determine on the consolidation of two or more schools, or territory usually served by two or more schools, or a school already established may be selected and transportation provided for the pupils.⁹⁵ Consolidation has been progressing since about 1900, and by 1918-1919, there were 535 consolidated schools. Of these, 155 were open country consolidated schools.⁹⁶ The tendency in North Dakota indicates a trend toward the larger taxing unit.

METHOD AND BASES OF
CLASSIFYING HIGH
SCHOOLS

North Dakota classifies her high schools on the bases of their maintaining certain minimum requirements set by the Board of Education. They are grouped into three classes, each of which has certain minimum requirements to maintain, before it is eligible to the state aid. This aid is granted on the principle of stimulating education-

⁹³North Dakota General School Laws, 1919, Sec. 1297. p. 95.

⁹⁴Ibid., Sec. 1315. p. 101.

⁹⁵Ibid., Sec. 1190. p. 62.

⁹⁶North Dakota Superintendent of Public Instruction, Report, 1918-1919. p. 131.

al progress as well as educational need. How well North Dakota accomplishes these aims will be seen later.

The bases for classifying the high schools of North Dakota^s/re as follows:

FIRST CLASS HIGH SCHOOLS.

1. There shall be at least eight teachers employed including the superintendent, and at least three high-school teachers.
2. There shall be not less than five rooms or departments, together with an office for the superintendent, a sufficient number of other rooms, a library, manual training, and home economics rooms. Ample laboratories shall be provided.
3. All high school teachers must be graduates of a standard college or the equivalent.
4. All work must be maintained to a standard of efficiency and according to a course of study outlined by the State Department of Education.
5. There shall be at least thirty-six weeks of school each year.
6. The Superintendent must be provided with an office equipped to keep records of scholarship and equipment.
7. There are specified floor space provisions in the way of library, laboratories special departments, etc.
8. Prescribed courses of study must be followed, including certain constants.
9. The salary of the superintendent shall not be less than \$2,000, but \$2,500 is recommended. The salary of high-school assistants shall not be less than \$125 per month.
10. There shall be sufficient health provisions, as drinking fountains, flush toilets, etc.
11. There shall be an average attendance of not less than forty

well trained high-school students.

12. The district must maintain a specified mill tax on assessed valuation.

13. The superintendent must have ample time to supervise all work of the elementary and high schools.

SECOND CLASS
HIGH SCHOOLS

All the above rules apply to the second class high schools with the following ex-

ceptions:

1. There shall be not less than five rooms or departments and two additional rooms for laboratory and recitation purposes besides suitable equipment for manual training and home economics.

2. There shall be at least seven teachers including the superintendent and two high-school teachers.

3. There shall be ample library and laboratory facilities and courses offered in at least two laboratory subjects.

4. The superintendent shall receive a minimum salary of \$1,600. High-school assistants shall receive not less than \$125 per month.

5. There shall be a daily attendance of at least thirty well prepared high school students.

6. Three-fourths of the subjects in the list of constants prescribed by the State Board of Administration, including manual training and home economics, shall be taught if students are available.

THIRD CLASS
HIGH SCHOOLS

The requirements for the third class high schools are similar to those of the

first and second except that certain standards are lowered.

1. Floor space is diminished. Only four rooms and at least one laboratory and recitation room are required.

2. There shall be not less than five teachers in the school with one teacher in the high school. Under certain conditions the prin-

principal and the assistant must be graduates of a standard college or the equivalent.

3. The salary of the principal shall be at least \$1,350 per year. The salary of the high-school assistant shall be at least \$125 per month.

4. The average daily attendance shall be at least twenty well prepared high school students.

5. Laboratory facilities for instruction in laboratory science and at least one unit of such science shall be required each year.⁹⁷

STATE AGRICULTURAL
HIGH SCHOOLS

Besides the three classes of high school as stated above, there are a few agricultural high schools in the state. These schools are in a class by themselves and are controlled by special rules and regulations. The requirements for these schools are as follows:

1. The superintendent shall hold the usual qualifications and in addition shall be capable of organizing and supervising the extension work of the special departments.
2. There shall be at least two teachers of academic subjects, and special instructors in agriculture, manual training, and household economy.
3. There must be provided sufficient floor space for the special departments.
4. There shall be classes in not less than two units each of the three special subjects, viz.: agriculture, manual training, and home economics. A required enrolment of not less than twenty well prepared pupils must be had in each department.

⁹⁷North Dakota Board of Administration. State High School Manual, 1920, pp. 17-19.

5. The specialist in agriculture shall be employed for twelve months with a month vacation. He shall receive a salary of not less than \$1200 per year. He shall be especially fitted for club work among farm boys and girls.

The list of classified high schools is very changeable. Each year some are dropped from the list, some are transferred to the consolidated schools, some are advanced, and other new schools are added.⁹⁸ A consolidated school is any school that serves eighteen or more sections of contiguous territory. Eighty-five of the classified high schools are located in such districts.⁹⁹ According to the 1921 report of the state high-school inspector there are four agricultural high schools, 77 first class high schools, 27 second class high schools, and 43 third class high schools. This makes a total of 151 classified high schools including the four agricultural high schools.¹⁰⁰

III

SOURCES OF HIGH SCHOOL REVENUE

FEDERAL APPROPRIATIONS

The Smith-Hughes Act for federal aid to schools below college grade was approved by the legislature of North Dakota, February 23, 1917. The conditions state that every dollar of federal funds must be matched by a dollar of state or local money. The aid can be expended only for the salaries of teachers and supervisors of agriculture, or for the salaries of teachers of trades, economics and industrial subjects.¹⁰¹ The sum of federal funds available for the year 1921 was \$17,188.75.¹⁰²

⁹⁸ North Dakota Department of Education, State High School Inspector's Report, 1919, p. 7.

⁹⁹ North Dakota Inspector of High Schools, Report, 1919, p. 9.

STATE APPRO-
PRIATIONS

North Dakota provides aid for her high schools by two kinds of appropriations.

The main appropriation is one of \$85,000 made by the legislature biennially for the high schools of the state. This fund is apportioned pro rata among them in a flat rate basis according to their classification heretofore stated.¹⁰⁴ A second appropriation is one made by the state legislature as a subvention to the Smith-Hughes fund, for vocational training. For this purpose in 1919, North Dakota appropriated a sum of \$12,000, out of any money available in the state treasury.¹⁰⁵

LOCAL SOURCES
OF REVENUE

A county tax exists in North Dakota, but it exists for the support of the elementary school only. The support of the high schools is almost entirely dependent upon district revenue. Approximately 77% of North Dakota's total revenue for schools comes from local taxation.¹⁰⁶ If this be true of the revenue for education in both elementary and high school, it will be more true for secondary education as the elementary schools always receive a greater apportionment of state funds. Therefore the following discussion will take up in turn the organization of the various kinds of districts as to sources and methods of raising revenue for the schools.

¹⁰⁰ North Dakota Inspector of High Schools, Report, 1921, pp. 19, 20.

¹⁰¹ North Dakota Board of Administration, State High School Manual, 1920, p. 9.

¹⁰² North Dakota Auditor's Report, 1920, p. 40.

¹⁰³ North Dakota General School Laws, 1919, Sec. 1433, p. 127.

¹⁰⁴ North Dakota Session Laws, 1919, Sec. 6, Chapt. 203, p. 394.

¹⁰⁵ Bureau of Education, Bulletin, 1920, No. 11, p. 55.

North Dakota passed a law in 1921 in which she limited the taxes which a school district may raise by local tax levies. The law reads as follows: "The total amount of taxes levied for any purpose, except for permanent improvements and a sinking fund, shall not exceed an amount equal to one-third of the combined levies made for the past three years, except that school districts may make an additional levy not to exceed 30% in excess of the above levy."¹⁰⁶ This law has tended to limit districts to insufficient funds to run their schools. Besides the tax levies for support and maintenance, there are always special tax levies.

BONDS

Immediate needs often call for larger sums of money than can well be raised by annual tax levies. Improvements paid for by such expenditures are more or less permanent. The usual method of raising revenue for these purposes is by bonding a district and redeeming the bonds in the future. Ordinarily the time is from five to twenty years. In common districts of North Dakota, a district may be bonded by a vote of the people in the district. These bonds are to be issued for (1) building and furnishing a schoolhouse, (2) purchasing^g rounds to build on, (3) to fund any outstanding indebtedness or the redemption of outstanding bonds. Recent legislation states that high schools located in common districts may issue bonds bearing seven per cent interest, payable semi-annually. The amount of bonds plus all other indebtedness must not exceed five per cent of the assessed valuation of the school district.¹⁰⁷

¹⁰⁶ North Dakota Session Laws, 1921, Chapter 122, Sec. 2.

¹⁰⁷ North Dakota Session Laws, 1921, Chapter 105, Sec. 1334.

The conditions for issuing bonds in special districts are similar to those in common districts except that only 5% interest can be offered by the district.¹⁰⁸ In independent districts conditions are the same as in special districts except that the time for which bonds may be issued is raised to twenty-five years.¹⁰⁹ It will be noted from the above that the common district can sell bonds at 7% interest, while the others can offer only 5% interest. The five per cent restriction is working a hardship on these same districts by hindering them from raising enough funds to run their schools satisfactorily.

Whenever bonds are issued, some method must be found for the payment of interest on the bonds and for their redemption. In common districts the board of education is authorized to levy each year upon the taxable property of the district a sufficient sum to pay the interest on the outstanding bonds, and after five years a sufficient sum to redeem the bonds as they mature.¹¹⁰ Independent districts limit the amount of bonds to be issued, plus all other indebtedness, to an amount not to exceed fifty mills on the dollar of the valuation of the district.¹¹¹

Districts are always authorized to raise funds to pay off judgments against themselves. North Dakota districts may levy a tax in addition to the regular tax for this purpose.¹¹² No tax limit is set.

The rural population of North Dakota is seeking secondary education. High Schools located in towns and cities are complaining

¹⁰⁸ North Dakota General Laws, 1919, Sec. 1273, p. 84.

¹⁰⁹ Ibid., Sec. 1303, p. 97.

¹¹⁰ Ibid., Sec. 1336.

¹¹¹ Ibid., Sec. 1303.

¹¹² Ibid., Sec. 1223.

of supporting and providing secondary education for the rural communities by educating non-resident students, who come in from rural districts. The following is a statement from the Department of Education:¹¹³ "A crying need is felt by the high schools for financial aid from non high-school districts. The financial burden of educating pupils from outside the district is becoming so great that the high schools in some of the smaller cities feel compelled to go off the list of state aided schools and charge tuition. The state aid is too small."

To remedy this situation, the Legislature of 1921 passed a law authorizing a district in which a high school is located, and which is offering four years of work, to charge not to exceed \$1.50 per week during the time such non-resident student is in attendance. The district where this non-resident pupil has permanent residence must pay such pupil's tuition.¹¹⁴

IV

DISBURSEMENT OF FUNDS.

METHOD AND BASES FEDERAL APPROPRIATION

It is necessary to know how funds are disbursed in a school system before one can judge the ranking of a school system. There are instances where funds have been distributed in such a way that they have acted as more of a hindrance to progress than otherwise. An effort will be made to discuss each of the different funds in turn. The Smith-Hughes, which is in fact a federal fund, might well be designated a state fund as it is distributed by the state. This

¹¹³ North Dakota Superintendent of Public Instruction. Report, 1918-1920, p. 152.

¹¹⁴ North Dakota Session Laws, 1921. Chapter 107, Sec. 2.

fund and the state appropriation to match it are apportioned at the same time and under similar conditions. The State Board of Education is designated as the Board of Vocational Education. This board has authority to administer the funds provided by the federal government and the state of North Dakota under this act.¹¹⁵ The funds are apportioned to approved schools meeting the requirements of this act for the promotion of agriculture, trade and industrial subjects, and home economics.¹¹⁶ Each school may receive an amount equal to one-half of the salaries of teachers of such vocational subjects.

STATE APPROPRIATIONS

The State Board of Education apportionments to each high school whose application is approved the following sums: \$2500 annually to each of the four agricultural high schools maintaining manual training and home economics departments; \$800 to each high school maintaining a four year high-school curriculum; \$500 each to three-year high schools; and \$300 to each high school, having a two-year high-school curriculum.¹¹⁷ The high schools receive aid according to classification by complying with certain conditions as to buildings, courses of study, and state inspection.¹¹⁸ This information about the several high schools is contained in an annual report made by the State High-School Inspector to the state Board of Education.¹¹⁹

The district is the local taxing unit in North Dakota, but the county as a taxing unit to aid rural, graded, and consolidated

¹¹⁵ North Dakota General School Laws, 1919, Art. 37, Sec. 3.

¹¹⁶ Ibid., Sec. 6.

¹¹⁷ Ibid., Sec. 1432, pp. 126-127.

¹¹⁸ Ibid., Sec. 1432, p. 125.

¹¹⁹ Ibid., Sec. 1438, p. 128.

elementary schools is not unknown.¹²⁰ No aid from this source is granted the high school. The only reason for mentioning the county aid at this time is the bearing a larger taxing unit may have on this problem.

DISTRICT
TAXES

In discussing the disbursement of funds in the local district it will be necessary to consider the total school fund for each type of district, as no designation is made as to the use of funds for elementary schools or high schools. North Dakota specifies quite definitely the purposes for which certain funds may be used. The method of disbursing funds is the same for the three main types of districts in which high schools may be established. They are as follows: No expenditure involving more than \$100 shall be made except in accordance with the provisions of a written contract. Sums involving \$500 or more under contract must be let out by sealed proposals to the lowest bidder.¹²¹

The purposes for which the general maintenance and support fund may be used are specifically stated. The local board of education may purchase, exchange, and hire rooms, lots, and sites for school houses and may fence or improve them. It may build, alter, enlarge improve, and repair schoolhouses, outhouses, etc. It may purchase, sell, exchange, improve, and repair school apparatus, textbooks, furniture, appendages, and provide fuel and pay a janitor. It may hire and pay teachers. It may engage a superintendent for not to exceed three years and pay a reasonable salary to him. It may defray the expense of the school board including

¹²⁰ North Dakota General School Laws, 1919, Arc. 24, Sec. 1.

¹²¹ Ibid., Sec. 1259, p. 81.

the clerk's salary.¹²²

Bonds may be issued for specific purposes and the money expended for the same. Permitted purposes are for the raising of funds to purchase sites, or to erect buildings, or to fund outstanding indebtedness.¹²³ To pay the interest on these bonds as they become due and to create a sinking fund for the redemption of such bonds the boards of education shall levy an additional tax to the regular annual levy, which shall remain a fund for specified purposes as stated above.¹²⁴

V.

CONDITIONS OF PARTICIPATION.

STATE REQUIREMENTS FOR FEDERAL AID

Not less important than the amount of aid granted the schools are

the conditions for participation required of the schools. If the aid is granted in such a way as to help the wealthy district instead of the poor district, if aid is granted so that it fails to stimulate educational progress, it does more harm than good. North Dakota, being an agricultural state, has tended, to develop the agricultural education, receiving additional impetus under the Smith-Hughes Act. Not so much progress as one would expect has been accomplished in the vocational education in North Dakota. The Department of Education has laid down a well formulated plan for this type of work, so that it is mostly a matter of time when creditable progress probably will be made. Schools participating in

¹²²North Dakota General School Laws, 1919, Sec. 1251, p. 78.

¹²³Ibid., Sec. 1272, p. 83.

¹²⁴Ibid., Sec. 1276, p. 82.

the benefits of state and federal funds shall provide satisfactory plant and equipment as follows:

1. Floor space equipped primarily for instruction in agriculture and providing ample space and facilities for such class laboratory and shop work as the course of study shall require.
2. For maintenance, annually, a sum which shall be not less than \$5.00 for each student enrolled in the classes in vocational agriculture. From this fund, the teacher in agriculture may secure such equipment and material as is necessary from time to time.
3. Such other funds as are necessary for equipment, material, and supplies as may be necessary to carry out the work successfully and to meet the requirements of the state Board of Vocational Training.
4. A teacher approved for vocational agriculture^e for twelve months at a minimum salary of \$1600 per year.
5. Suitable means of transportation to enable the teacher of agriculture to supervise the farm project work at the homes of the students.

The course of study offered in all day schools for vocational agriculture, including project work, shall be for not less than one school year of nine months. For the first year in which a school applies for approval, a one-year course will be approved, and thereafter the course offered shall include agriculture offered in each year of the high school course. The student must put in one-half of the time in the study and practice of vocational agriculture. Each student enrolled shall be required to conduct a productive agricultural project for at least six months of the year. The work shall be definitely planned and an estimate made of the cost of the projects, the amount of time, land, tools, power, stock, buildings, and equipment to be used. An accurate account of materials must be

kept by the student.¹²⁵

The state board has proposed to establish evening and industrial classes, but practically nothing has been accomplished as yet.¹²⁶

Day unit-trade schools include (1) evening home economic schools and classes, (2) part-time home economic schools and classes, and (3) all day home economic schools and classes. Two courses of study are offered. One shall provide for from two to four years of work in vocational home economics, and related and non-vocational subjects. One-half of the time shall be devoted to practical home economic projects. The remaining one-half day shall be devoted to the fundamental processes, such as English, history, and arithmetic.¹²⁷

The high schools that have been taking advantage of the federal aid are the five agricultural high schools and those maintaining agricultural departments. These high schools are, of course, in the more wealthy districts. An effort is being made therefore by the State Board of Administration to exclude the above schools from receiving federal aid at the same time as receiving state aid. The purpose is to distribute the financial aid more widely.¹²⁸ It is the wish to aid the consolidated high schools in the open country more than at present.

REQUIREMENTS OF
DISTRICT FOR
STATE AID

As the district is the controlling local unit in local administration, the county may be omitted in discussing the conditions required of the local unit for receiving state aid for high schools. High schools

¹²⁵ North Dakota State High School Manual, 1920, p. 10.

¹²⁶ Ibid., p. 11.

¹²⁷ Ibid., p. 12.

¹²⁸ Ibid., p. 12.

must be classified before they are eligible for state aid from the high-school appropriation. The conditions for participating in the aid are quite comprehensive, and are as follows:

1. Before a high school can be considered for state aid, it must make application to the Board of Administration through the high school inspector on or before January 1st of each year. Blanks are furnished by the inspector on application. The standards required for classification in high schools are given in the section under the "Classification of High Schools". The general conditions required of all high schools for participation in state funds are as follows:

1. The high-school teachers shall give all of their time to the high school.
2. The work in all high schools shall be of high order.
3. The superintendent or principal in third class high-schools shall be provided with an office and sufficient assistance in high school to allow him one-fourth of all his time in school hours for general supervision over grades and high school. In the office of the superintendent there shall be kept on file circulars, records of equipment, library, enrolment, scholarship, promotions, alumni, pamphlets, and correspondence pertaining to the school.
4. High-school aid funds shall be kept separate from the general funds and said high-school aid shall be used for the purchase of library books, laboratory equipment, and apparatus, equipment for manual training, and household economics, commercial work, etc. If the school is sufficiently equipped, the balance of the fund may be used for teachers salaries. In the case of agricultural high schools, a considerable portion should be expended for agricultural equipment and for payment of specialists.

5. The clerk of the school board of each school receiving aid shall submit to the State Board of Administration through the high school inspector, not later than April 10th of each year, a detailed statement of all expenditures during the year, and of money received from the state.

6. All high school teachers are required to hold as a minimum a bachelor's or an equivalent degree from a standard college. Special teachers of music, drawing, commercial subjects, and manual training may hold special certificates granted by the Board of Administration.

7. Large classes in a school should not contain more than twenty-five pupils. A teacher should not take charge of more than five classes in a day.

8. Schools must have an efficient heating and ventilating system, and sanitary conditions.¹²⁹

There are certain requirements in the general conduct of all classified high schools. Definite scholarship requirements are made for admission to the senior high schools. All courses must be pursued for a minimum of thirty-six weeks for forty-five minute periods. All class room recitations must be forty minutes in the clear. There are several other requirements of the same nature. North Dakota has specified very definitely what conditions a district must fulfill before receiving aid. The assumption is that her high schools would be well equipped and a good standard of work maintained. Whether the aid is distributed equitably will be seen later.

¹²⁹North Dakota State High School Manual, 1920, pp. 16-17.

VI.

USES OF FUNDS.

There are certain laws that are general as to the use of funds for all districts of North Dakota. "Each treasurer who uses any portion of school money for his own profit or who expends any portion thereof for his own private use is guilty of embezzlement.¹³⁰" Every person, while an officer of any school district, who directly or indirectly buys or traffics in any school warrants, order or scrip, etc. for personal gain is guilty of a misdemeanor.¹³¹ The penalty is not stated. There are several other abuses of office indicated in the law, but they are of the nature of those already stated, so it will not be necessary to dwell further upon this phase of the problem. The purposes for which funds can not be used are implied in the purposes for which certain funds can be used.

The North Dakota law states very explicitly for what purposes the state high-school aid can be used. This fund must be kept separate from the general fund and can be used only for the purchase of library books, laboratory equipment, and apparatus, equipment for manual training and household economics, commercial work, etc. Provided that after the equipment is sufficient, the balance of money may be used for the high-school teachers salaries.¹³² In agricultural high schools, the funds may be used for equipment for agriculture and the payment of specialists in agriculture. This provision is in addition to the preceding conditions already stated.

The general local fund for maintenance and support is permitted to be spent in the usual way. Special funds must be spent for the purpose for which they were raised. In addition to the general

provisions, there are a few special provisions that North Dakota has passed. One of these provisions is that applying to teacherages, which states, "The schoolboard in any district where two or more schools have consolidated is empowered to build and equip dwellings for the use of teachers, the same to be known as teacherages".¹³³ The second is the provision concerned with districts being liable for tuition at state institutions. All students attending any model high, grades, or elementary school which is operated, maintained, or in any manner concerned with the State University, any Normal School, etc. shall have their tuition paid to said university by the district in which said students reside. The rates are \$2.50 per month of actual membership per pupil.¹³⁴

VII.

RESULTS OF PRESENT SYSTEM

ACCESSIBILITY TO HIGH SCHOOLS

North Dakota is not reaching as many as she should of the students who should be in high school. The average number of students in high school to each 1000 of total population for the United States in 1918 was 15.6 students. For the same year North Dakota had but 14.7 students per 1000 population.¹³⁵ The greatest number was for California which had 27 students per 1000 population. Thus it is noted that North Dakota's high schools are not functioning to average capacity. Data for the year 1920-1921 exhibit an increase of

North Dakota

¹³⁰ General School Laws, 1919, Sec. 1351, p. 103.

¹³¹ Ibid., Sec. 10189, p. 104

¹³² North Dakota State High School Manual, 1920, p. 16.

¹³³ North Dakota General School Laws, 1919, Art. 15, p. 104.

¹³⁴ Ibid., p. 104.

¹³⁵ Bureau of Education, Bulletin, 1920, No. 19, p. 49.

only 8 students per 1000 population, or a total of 22.7 students. Utah during the same period had all but doubled the number of high-school students per 1000 population.

INCREASE IN ENROLLMENT
IN HIGH SCHOOLS FROM
1910-1920

It may be possible to discover something of the efficiency of the high

school system of the state by noting the increase in the enrolment in the high schools for stated periods. The increase in enrolment in high schools for the United States from 1912 to 1918 was 48.8%¹³⁶. That for North Dakota was 53.3% for the same period of time.¹³⁷ On the other hand, the total population of the United States increased 14.9% for the period 1910 to 1920 and that for North Dakota increased but 11.9%.¹³⁸ According to this data, North Dakota's high school enrolment has increased on that of the United States in proportion to the increases in their populations. If the increase in enrolment in high schools for North Dakota for 1918-1920 is compared with that of California, a state which has the greatest high school enrolment, it is found that the increase for North Dakota is 21.6%¹³⁹ from 1918 to 1920, while that for California is 43.9%.¹⁴⁰ Of course, the enrolment increase of California is much greater than North Dakota, as California has developed her vocational education to a much greater extent than has North Dakota.

NUMBER OF STUDENTS
PER TEACHER

The efficiency of a school system may be determined somewhat by the number of students per teacher. In general the number of students per teacher has decreased in the United States since 1900, being 25.5

¹³⁶ Bureau of Education, Bulletin, 1920, No. 19, p. 12.

¹³⁷ Inspector of High Schools, Report, 1921, p. 15.

¹³⁸ North Dakota United States Census, 1920.

¹³⁹ North Dakota Inspector of High Schools, Report, 1920, p. 15.

¹⁴⁰ North Dakota State Board of Education, Report, 1918-1920, p. 175.

students per teacher then and 20.3 students per teacher in 1918. This may be indicative of a more intensive kind of work being done. The city high school and fully accredited high school have a larger number of students to a teacher than the rural high school. The North Central Association of high schools has placed the "dead line" at 25 students per teacher.¹⁴¹ Recently the most efficient work as well as most economical is considered to be done with 25-30 students per teacher. As stated previously, the average for the United States in 1918 was 20.5 students per teacher.¹⁴² The average for North Dakota was only 14.2 students per teacher. This is very much lower than that for the United States. That for Utah was found to be 18 students per teacher.¹⁴³ In North Dakota, consolidation has not reached the advanced state that it has in Utah, which may account for a great many small rural high schools there whose continuation will be neither efficient nor economical for the state. Table 5. expresses in tabular form the number of students per teacher for several states and the United States for the year 1918 and 1920.

Table 5.— Students per teacher for 1918 and 1920 in two states and the United States.

<u>State</u>	<u>Number of students per teacher.</u>	
	1918 ^a	1920 ^b
North Dakota	14.2	14.2
Utah	18	21.3
United States	20.5	

a. Bureau of Education, Bulletin, 1920, No. 19, p. 88.

b. Superintendent of Public Instruction, Report 1918-1920, of states given.

¹⁴¹ Bureau of Education, Bulletin, 1919, No. 45.

¹⁴² Bureau of Education, Bulletin, 1920, No. 19, p. 86.

¹⁴³ Ibid., p. 86.

TEACHERS
QUALIFICATIONS

As North Dakota has many small

rural high schools, it has not always

been easy to maintain the minimum requirements in the certification of teachers. Many of these school systems have neither the wealth nor financial ability to pay what professional requirements demand. This situation will undoubtedly continue until there exists a more equitable distribution of wealth, so that the poorer district can demand teachers of equal professional training with those in the more wealthy district. At present the department of education issues two kinds of professional certificates to high school teachers, a second grade professional certificate, and a first grade professional certificate. The second grade professional certificate can be granted to those persons who are at least twenty years of age and who have had at least nine months experience in teaching and have, in addition to elementary requirements, credit in certain professional subjects in education and advanced subjects. This certificate shall qualify the holder to teach in any of the public schools of the state except in high schools doing four years of high school work.¹⁴⁴ The first grade professional certificate is granted to those persons who have had the equivalent of a college education, and who have had at least eighteen months experience in teaching. This certificate qualifies the holder to teach in all the common, graded, and high schools of the state and is valid for five years or for life.¹⁴⁵ Drawing and music teachers may obtain special certificates from the board of examiners, which certificates are valid for periods of time set by the board.¹⁴⁶ According to

¹⁴⁴ North Dakota General School Laws, 1919, Sec. 1362, p. 230.

¹⁴⁵ Ibid., p. 230.

¹⁴⁶ Ibid., p. 231.

the standard in professional requirements for North Dakota, the salaries paid to high school teachers should range among the upper percentile of the states of the Union. After reviewing the professional requirements for teachers and noting what might be expected of the state in the way of salaries, we turn to study the conditions and ability of the several districts to finance their local school systems.

VIII

INEQUALITIES OF THE PRESENT SYSTEM.

EXPENDITURE PER CHILD IN THE VARIOUS HIGH SCHOOLS

It is characteristic of the traditional district dependent upon local

sources of revenue that many inequalities exist in the expenditures per capita for instruction. North Dakota is no exception to this condition. A great variation in the cost of high-school instruction will be seen to prevail among the several districts. Table 6 shows the existing situation. Only 108 of the 144 classified high schools were selected for tabular purposes, as the remaining number, either on account of no reports or invalid reports, could not be used. This number of districts (108) represents 75% of all the high schools and 81% of all the high-school students. The four agricultural schools were omitted as being a special type of school, and being specially aided by the state as such. From Table 6 it is noticed that the range extends from \$30 per capita for instruction to \$183 per capita, the latter being six times as great as the former. This is too great a variation. The median per capita cost is found to be \$80. This is too low, as it means that half of the high schools are paying less than \$80 per capita for their high-school instruction. There are 63% of all the students or 6,615 students for 55 districts

who receive from \$60 to \$80 per capita for education. The remaining 37% of the students from 53 high school districts, receive from \$30.00 to \$183 per capita for education.

Table 6. Per capita cost of instruction in the several high school districts in North Dakota in 1919.^a

Group	Number of district	Cost per capita instruction	Number of students	Per cent of students
I	1	\$180 - \$183	83	7%
II	0	170 - 179		
III	1	160 - 169	44	4%
IV	0	150 - 159		
V	3	140 - 149	147	1.4%
VI	1	130 - 139	115	1.1%
VII	2	120 - 129	76	7%
VIII	4	110 - 119	220	2.1%
IX	9	100 - 109	441	4.2%
X	14	90 - 99	719	6.8%
XI	19	80 - 89	2207	21.1%
XII	19	70 - 79	2776	26.5%
XIII	17	60 - 69	1632	15.6%
XIV	8	50 - 59	1095	10.4%
XV	9	40 - 49	717	6.8%
XVI	<u>1</u>	30 - 39	<u>171</u>	<u>1.6%</u>
	108		10,443	100%

Median \$80.00 Range \$30.00 to \$183.00 Average \$82.66

a. Computed from North Dakota State High School Inspector's Reports for 1919 and 1921.

The cost of instruction bears closely upon the method of apportioning state aid to the several high schools. North Dakota grants state aid to high schools according to their classification on a pro rata basis. For the school year ending June 30, 1921, the grants were \$626.00 for first class high schools, \$392.00 for second class high schools and \$235.00 for third class high schools. Table 7 shows the percentage of state aid granted the various classes of high schools when considering the proportion of students in the classes of high schools and also the number of districts.

Table 7. The amount of state aid to classes of high schools, the number of districts, the number of students in the three classes of high schools, and their respective percents, 1920-1921.

Classes of high schools	No. of districts	% of all districts	No. of students	% of all students	Aid granted to classes of high schools	Per cent of all aid
1st class	73	51.0%	9337	76.8%	\$65,838	69.4%
2nd class	25	17.6%	1336	10.8%	9,800	14.8%
3rd class	44	30.7%	1602	13.0%	10,340	15.7%
Total	142	99.3%	12,265	99.8%	65,838	99.9%

A. North Dakota High School Inspector's Report, 1921, p.14, and pp. 22-24.

Table 7 shows that in granting state aid by classes, little consideration is given a high-school system as a unit. It is seen that 30.7% of the high-school districts among the third class receive, but 15.7% of the state aid granted to all the high schools, and represents 13% of ^{all} the children. The second class high schools,

17.6% of all the high schools, receive 14.8% of all the aid, and represents 10.8% of all the students. The above data shows that the third and second class high schools get approximately the same amount of aid, but the third class high schools have 11 more schools in their group than did the second class high schools. This situation indicates aid to high schools unjustly or that she has too many small high schools, which might be changed into larger ones by consolidation. The factor of the school, however, should be taken into consideration, when granting aid to high schools as a small high school is more expensive than a large one. We have considered the inequalities that exist among the high schools by classes, now we turn to study the inequalities among schoolson a per capita basis. Table 8 indicates that on a per capita basis certain high schools receive practically no aid from the state. This is true of the larger schools, that receive the same amount of aid that the smaller ones do, when they are in the same class. This feature will be shown in Table 8, by computing the ratios between the state aid received from the state by a school, and the expenditure for high-school instruction per capita.

Table 8. Per cent high-school aid is of the cost of instruction per capita in North Dakota, 1918-1919^a.

Group	Number of Districts	Percent aid is of cost of instruction per capita	Number of high-school students.
I	1	22% - 22.9%	567
II	1	21% - 22.9%	455
III	1	20% - 20.9%	308
IV	0	19% - 19.9%	283
V	0	18% - 18.9%	43
VI	0	17% - 17.9%	43
VII	1	16% - 16.9%	0
VIII	1	15% - 15.9%	0
IX	4	14% - 14.9%	0
X	5	13% - 13.9%	71
XI	7	12% - 12.9%	28
XII	10	11% - 11.9%	46
XIII	11	10% - 10.9%	807
XIV	7	9% - 9.9%	310
XV	11	8% - 8.9%	861
XVI	13	7% - 7.9%	1029
XVII	5	6% - 6.9%	329
XVIII	10	5% - 5.9%	1181
XIX	5	4% - 4.9%	377
XX	4	3% - 3.9%	746
XXI	3	2% - 2.9%	1116
XXII	1	1% - 1.9%	585
XXIII	1	0.8% - .9%	924

Total No. of districts		No. of students	
102		10,102	
Median	Minimum	Maximum	Differential
7.8 1/2	.8 1/2	30%	29.2%

- a. Computed per cents from North Dakota State High-School Inspector's Reports, 1919 and 1921.

From Table 8, it is seen that one district receives only 0.8 1/2% of the cost of instruction per capita from the state in the form of high school aid. In contrast to this, there are three districts that receive from 20% to 30% of the cost of their instruction per capita from the state. It also means that 54.3% of all the students receive from 7.9% to .8% of the cost of instruction from the state, while 45.7% of all the students in high school receive from 30% to 7.9% of the cost of instruction from the state sources. The range from 0.8% to 30% is great, but it is not too great, were the distribution of aid made according to the financial ability of the district, which often may be determined by the tax levies made in the ^{several} school districts. Table 9 compares the local tax levies, the cost of instruction per capita in the several districts, and the aid per capita from the state high school appropriation.

Table 9. Comparisons of districts in local tax levies, cost of instruction per capita, and aid per capita from state high-school fund and assessed valuations in North Dakota, 1920-1921.^a

I. First class schools.

District	Assessed valuation	Mill tax	Cost of instruction per capita	State aid per capita	Number of students enrolled.
Fairmount	2,641,593	7.81	\$160.00	\$14.23	44
Cavalier	1,183,472	10.85	75.00	5.85	107
Bismarck	7,616,660	16.45	70.50	1.73	361
Battineau	1,312,227	16.62	35.00	3.65	171
Ellendale	1,072,473	17.44	183.00	7.54	83
Enderlin	1,369,543	22.42	67.00	4.93	127
Range for 72 first class schools	455,905 to 12,009,835	7.0 to 30.1	30. to 183.	\$66 - \$15.26	41- 924

II. Second Class Schools.

District	Assessed valuation	Mill tax	Cost of instruction per capita	State aid per capita	Number of students enrolled
Bathgate	\$ 875,334	11.53	\$70.00	\$7.70	51
Forman	1,379,794	11.91	122.00	10.05	39
Buxton	1,316,577	13.00	65.00	7.26	54
Anamoose	1,113,348	19.96	55.50	5.76	68
Drake	946,506	27.11	66.50	6.03	65
Range for 29 second class	\$369,304 to 2,042,277	5.3 to 27.11	\$49. - \$122	\$5.22 to \$12.64	31 to 75

III. Third Class schools

District	: Assessed : valuation	: Mill : tax	: Cost of : Instruction : per capita	: State aid : per capita	: No. of : students : enrolled
Cogswell	: \$1,469,524	: 9.58	: \$58.00	: \$5.73	: 41
Dazey	: 1,164,486	: 10.10	: 75.00	: 6.71	: 35
Crystal	: 751,499	: 11.01	: 90.00	: 8.10	: 29
McClusky	: 974,978	: 13.72	: 100.00	: 5.22	: 45
Portal	: 375,034	: 15.72	: 68.00	: 3.67	: 64
Range for 42 third class high: schools	: \$315,758 to: 2,751,564	: 3.43 to 22.4	: \$44.00 to 140.00	: \$4.20 to 11.75	: 22 to 64

- a. Computed from data obtained from North Dakota State High School Inspector's Reports, 1919 and 1921. Cost of instruction is taken from 1919 report.

From the above table it is seen that educational equality is not being obtained under the present system of financing the schools. In making the comparisons of the several school districts the schools were selected at random in the three classes of high schools and grouped accordingly, although as great inequalities exist within the same group as within groups of different classes of high schools. On a classification basis we will compare Fairmount of the first class high schools with Drake of the second class high schools. Fairmount has an assessed valuation of \$2,641,593; levies a tax of 7.81 mills which raises \$160 per capita for instruction, and receives an aid from the state of \$14.23 per capita or the total first class high school aid which is \$626.00 for the year 1921. She has 44 students in the high school. Drake has less than one-third the wealth, levies a tax approximately three times as great as Fairmount, by which she raises only \$66.50 per capita cost of

instruction, while Fairmount can raise \$160.00 per capita. Drake is educating 65 high school students, and is receiving \$6.03 per capita aid from the state, and Fairmount is receiving over twice as much per capita aid from the state or \$14.23. If examples of inequalities are selected from the first and the third class high schools, as pronounced inequalities will be found to exist. For purposes of comparison, we will chose Cavalier from the first class high schools and Portal from the third class high schools. Portal has only about one-third the valuation, but pays \$68.00 per capita for the instruction of her high school students while Cavalier pays but \$75.00. If Cavalier were willing to levy as high a tax as Portal she would be able to pay \$108.65 per capita for the education of the high school students. Due to the difference in the first class and second class aids, Cavalier receives \$5.85 per capita or \$626.00 from the state and Portal, which is carrying by far the heavier burden is receiving \$3.67 per capita or \$235. total, from the state. From the above data we are to conclude that the state of North Dakota has done little as yet to equalize the burdens of operating the various school systems and in the distribution of wealth. Each local unit has financed its high school according to the progressiveness of the community and the wealth available. Closely related to the efficiency and wealth of a school system are the salaries of the teaching force. Where schools can and will pay good salaries, there are usually found the best qualified teachers. If conditions in several high school districts are similar we have a right to expect fairly like expenditure for salaries of teachers. Table 10 shows the average expenditure for salaries of teachers in the three classes of high schools.

Table 10. - Average salaries of high school teachers in the various classes of high schools in North Dakota, 1920 - 1921.

	Average salary of Supt.	Average salary of principal	Aver. salary of teachers	Average tax levy in 3 class of high schs.
1st class	\$2,679.18	\$1,961.03	\$1,479.39	16.19mills
2nd class	2,106.73	1,511.54	1,357.50	14.58mills
3rd class		2,031.95	1,381.89	13.04mills

a. North Dakota State High School Inspector's Report, 1921, p. 30.

The preceding table indicates the average salaries for the three types of high schools, from which we may infer the efficiency of the instruction in these various classes. The first class pays slightly higher salaries than the other two classes. Contrary to expectancy, the third class high school teachers are paid more on an average than the second class teachers in spite of the fact that the average tax levy in the third class high schools is less than in the second class districts. In computing averages, many variations may be leveled out. In Table 11, which follows, several high school districts will be compared as to salaries paid, taxes levied, and assessed valuations. The salaries of the superintendents and principals only are used, as the reports of the state high school inspector gave no data for the other high-school teachers. The high schools selected are from the second class except Portal, which is of the third class. All the high schools have an enrolment ranging from 64 students to 68 students, so for our purposes they are

high schools of the same size. There is a range in the superintendents' salaries from \$1800 to \$2100. While the principals salaries vary from 1200 to \$1700, a \$500 difference. If the variation in the sum of the salaries of the superintendent and principal is computed, a difference of \$800 is found between the salaries paid by Anamoose and those by Portal. The range in the tax levies is from 9.59 mills in Walhalla to 27.11 mills in Drake. The difference in the valuations is still greater, being from \$375,034 in Portal to \$1,113,348 in Anamoose. The enrolments of these schools would demand equal educational efficiency, but this is impossible in the face of the above inequalities.

Table 11.- Comparisons of teachers salaries, local tax levies, and assessed valuations in several high-school districts in North Dakota, 1920 - 1921.^a

No. of High school students.	District	Salary of Superintendent	Salary of Principal	Local tax levy	Assessed valuation
64	Portal	\$1,800	\$1,200	15.05	\$ 375,034
65	Drake	1,800	1,675	27.11	946,506
65	Rollette	1,800	1,260	13.69	887,369
66	Walhalla	1,800	1,440	9.59	899,612
68	Ray	2,000	1,575	20.05	1,110,274
68	Anamoose	2,100	1,700	19.96	1,113,348

a. North Dakota State High School Inspector's Report, 1921, pp.26-28.

We have now studied North Dakota's school system as to the average salaries paid high-school teachers, and as to the variation of salaries in certain localities. It may be well to compare her

salaries with those of other states. Perhaps as good an index of her rank as any is a comparison of the salaries of high school teachers in cities with a population of 2,500 to 10,000. This classification includes nine cities for North Dakota. As reported in Table 12, North Dakota's salary schedule is well above the average for the United States in the same sized cities and gives her a respectable status among the progressive states. California as usual is well to the front, but California in 1918 lead all the states of the Union in paying good salaries.¹⁴⁷ Table 12, which follows, will show the comparative salaries paid in several states of the Union in 1921.

Table 12.- Salaries paid high-school teachers in several states of the Union in cities from 2,500 to 10,000 population.^a

<u>State</u>	<u>Salary</u>
California	\$2,045
South Dakota	1,752
North Dakota	1,635
Utah	1,606
Minnesota	1,513

a. Bureau of Education, Salaries Paid High School Teachers in the United States, School and Society, February 18, 1922, pp.196-197.

¹⁴⁷Bureau of Education, Bulletin, 1920. No. 11, p. 42.

IX.

NEEDS AND PROVISIONS.

RELATING TO
ORGANIZATION

North Dakota still maintains the traditional district organization in the control and administration of its local school unit. The efficiency of each high-school system is dependent upon the initiative and progress of the local community, as the local sources contribute approximately 96% of the revenue for financing the high schools. As long as the local units contribute as large a percent of the revenue as this, unequal education opportunities will surely continue, as the school will be maintained according to the progressiveness of the community and the wealth available. The larger the unit of control, the more evenly will the wealth be distributed. The county district as worked out in Utah, would level out many inequalities in the distribution of wealth among the several districts in the county as now existing. North Dakota has encouraged consolidation, but the results have been both slow and unsatisfactory. Consolidation by legislative statute would accomplish much for the state in administrative efficiency and financial equality.

The common unscientific method of limiting revenues for schools and then forcing the school system to conform to the restricted fund is quite universal. North Dakota has restricted all types of districts in the funds they may raise for school purposes by passing a law which states that a school district may levy a tax equal to one-third of the combined levies for the past three

years, and in addition a sum of money not to exceed 30% in excess of the above amount.¹⁴⁸ This has placed many high schools in a difficult position. It is suggested that this law be repealed. A similar restriction is placed upon the districts in regard to the issuing of bonds at a certain per cent.¹⁴⁹ This restriction should also be removed to permit a district to obtain enough funds for the operation of its schools.

SUPERVISION

Under the present district system, it is very difficult to maintain a close supervision over all the high schools of the state. The organization and administration of the district are neither centralized nor efficient. Therefore it is impossible for the high-school inspector to maintain satisfactory standards of uniform efficiency. A closer supervision is necessary. For instance, at present there are too many small high schools which do not accommodate a large territory. Forty-four per cent of the high schools have fewer than 50 students enrolled, and of these 65 high schools have under 50 students enrolled, and 18% have fewer than 30 students enrolled.¹⁵⁰

AID

As has been said,^{aid} is granted high schools on a flat rate basis according to a classification based on certain definite requirements made by the Department of Education. This method of granting aid exposes many inequalities. Little consideration is given the number of students in a school, the wealth of the community, the rate of tax levies, or the number of teachers. In the same class of high

¹⁴⁸ North Dakota Session Laws, 1921, Chapter 122, Sec. 2.

¹⁴⁹ Ibid., Chapter 105, Sec. 1334.

¹⁵⁰ Data computed. North Dakota State High School Inspector's Report, 1921.

schools the rich and the poor districts are treated alike. Very little standardization of school efficiency can be obtained by this policy. To remedy these ills California has formulated a plan for granting state aid to high schools as follows: 1. The state shall appropriate annually \$15.00 per pupil in daily attendance. 2. One-third of the high school fund is apportioned to recognized high schools, irrespective of attendance, two-thirds shall be apportioned among such schools pro rata upon the basis of average daily attendance. 3. The money apportioned to any high school shall be used only for teachers wages.¹⁵

As an addition to this law it is suggested that a sum be granted to each high school teacher pro rata by the state sufficient to raise three-fourths of the expense for the education of the student. Special appropriation might be made to a district for making an unusually high tax levy. The method of raising revenue for schools which is most advocated by educational financiers is the taxation method. Revenues raised this way are more assured than by any other methods.

AID TO STIMULATE
EDUCATIONAL PROGRESS

North Dakota has done little
to encourage new projects by state

aid. She aids agricultural schools liberally, but these schools are limited to one in a county and North Dakota has but four at present. No other industrial courses receive aid. New projects generally need some incentive for establishment. Health supervision could very profitably be aided at present.

¹⁵ North Dakota State Board of Education. Revision of State Aid, 1920, pp. 84-85.

North Dakota has failed to develop the teacher training departments in high schools. Minnesota has instituted a very satisfactory plan which North Dakota would do well to follow. By the Minnesota plan a liberal sum is placed at the disposal of the Department of Education to be used for teacher training in high schools.¹⁵²

TEACHERS
QUALIFICATIONS

North Dakota is maintaining a good standard in the academic and professional training for all high-school teachers except for the special teachers. Thus far it is not required that special teachers have a bachelors degree. The supply of special teachers would now warrant the same qualifications from the special teachers as for the academic teachers in the high school. The suggestion above also applies to the teachers of vocational subjects under the Smith-Hughes law. As yet no specific requirements are made for this class of teachers other than for the regular certificated teacher of the high school.

¹⁵² Minnesota Department of Education. Revision of State Aid, 1920.
p.14.

CHAPTER III

STATE AND COUNTY AID TO HIGH SCHOOLS
IN MINNESOTA

I.

General Introduction to the Present Situation.

SCHOOL CENSUS
IN MINNESOTA.

In considering Minnesota's high-school system and the means and policies she employs in supporting the same it may be well to gain some conception of her general educational situation. From the standpoint of the present study a conception of the general educational situation can perhaps best be gained if we consider the number of children Minnesota must educate and the proportion of these who are of high-school age. Table 1, which follows, reports the more important facts bearing upon the above aspects of the educational situation.

TABLE 1.— School population, attendance and enrolment in Minnesota, 1919-1920.

1. Total public school census (6-16 yrs.)	457,510 ^a
2. Total public school enrolment (5-21 yrs.)	541,780 ^b
3. Total high-school enrolment	55,782 ^c
4. Per cent enrolled high-school census is of total enrolled school census	10.3%
5. Per cent of school population (5-18 yrs.) not enrolled in public schools	23.1% ^d
6. Per cent of school population (5-18 yrs.) enrolled in private schools	6. % ^e
7. Total number of elementary and high-school pupils in graded and high schools	303,135 ^f

(Continued on next page)

Table 1. (Continued)

- a. Minnesota Department of Education, Biennial Report, 1919-1920, p. 157
- b. Ibid., p. 157
- c. Minnesota Department of Education, High-School and Graded School Reports, 1920
- d. Bureau of Education, Bulletin, 1920, No. 11, p. 94
- e. Ibid., p. 94.
- f. Minnesota Department of Education, Biennial Report, 1918-1920, p. 144

From Table 1, it is seen that Minnesota has a school enumeration of 457,510 children of school age (6 - 16 years). Her school census law requires that a school enumeration shall be taken annually.¹⁵³ The age limit is very unsatisfactory for high-school purposes as many of our high-school students are over sixteen years old. It will be necessary therefore to depend almost entirely upon the high-school enrollment in the state for our statistical purposes.

Of the 541,780 children enrolled in the public schools, 55,782 high-school students are in the high schools and graded schools of the state. Of the 55,782¹⁵⁴ high-school stu-

153. Minn. General School Laws, 1921, sec. 281, p. 79.

154. Minn. Department of Education, High School Inspector's Report, 1920, p. 16

dents, 49,060 are in the classified high schools of the state. The number of high-school students, 55,782, is 10.3% of the total school enrollment. If Bonner's data for 1918 is used, we find that 6% of the school census (5 - 18 years) are enrolled in private schools. This would give 16.3% enrolled in public and private schools. If it is assumed that one-third of the school population should be enrolled in the high school, then Minnesota is failing to reach approximately 15% of her high-school population. After obtaining some idea of the number of students to be educated in the high school, we naturally turn to a state's system of school support and the policies of raising revenue.

IMPORTANCE OF HIGH
SCHOOL FINANCE IN
THE SYSTEM OF SCHOOL
SUPPORT.

A study of the high-school finance of any state will of necessity include some consid-

eration of the financial situation of the elementary schools of the state as well as of the high schools. In Minnesota the Department of Education gives data sufficient to make fairly accurate estimations of the amount of expenditure for the high and graded schools and the elementary schools. From this data it will be possible to note whether the high school is receiving a disproportionate revenue compared to the elementary school. Table 2, which follows, indicates the expenditures for the high school and the elementary school. Of this total public school expenditure, \$29,314,482 was spent for education in the high and graded schools of the state. It was necessary to do some pro rating to find the expenditure for the elementary and the

high schools in these types of schools. The method of pro rating is that used by the Committee reporting for the Department of Education in the "Revision of State Aid".¹⁵⁵ The expenditures for education are itemized under that of the cost of instruction or teachers' salaries and that of maintenance. Under high-school teachers' salaries are included one-third of the superintendents' salaries and three-fourths of the special teachers' salaries. The remaining part of the above salaries are included with the elementary teachers' salaries. The cost of maintenance is pro rated between the high school and the elementary school according to the number of children in each school. Table 2, which follows, shows the results of the method as stated above.

TABLE 2.- School expenditure for various purposes in Minnesota, 1919-1920.

I.

HIGH SCHOOL SALARIES:^a

One-third high school salaries, superintendents	\$ 175,517.00
High School teachers' salaries	2,343,926.00
Three-fourths high school, special teachers' salaries	1,593,135.75
Total high school salaries	4,112,578.75

(Continued on next page)

155. Minn. Board of Education, Revision of State Aid, p. 33

Table 2. (Continued)

II.

ELEMENTARY SCHOOL SALARIES:^b

Two-third high school salaries, superintendents	\$ 351,034.00
Salaries of grade teachers	6,121,106.00
One-fourth salaries of special teachers	<u>531,045.25</u>
Total elementary school salaries	\$7,003,185.25
Grand total of salaries in state high <i>state high</i> school systems <i>and elementary teachers</i>	\$11,115,764.00

III.

COST OF MAINTENANCE FOR GRADED AND
HIGH SCHOOLS EXCLUSIVE OF TEACHERS' WAGES.^c

General Control	\$ 939,138.00
Books and Supplies	1,128,106.00
Operation and Maintenance	4,454,876.00
Transportation and other expenses	1,879,856.00
One-third land, and new buildings	2,065,706.67
Bonds and interest	2,483,956.00
Total expenditure (omitting teachers' wages)	\$12,951,638.67
Grand total of expenditure in Graded and High Schools	\$29,314,482.00 ^d

IV.

SPECIAL STATE AID AND EXPENDITURES
OF VARIOUS SCHOOLS OF THE STATE.

Annual state aid from the state	\$1,744,390 ^e
Total public school expenditure	\$38,358,555
Total cost of high school education in high and graded schools	6,686,889.17
Total cost of elementary education in high and graded schools	17,380,514.50

a. Minn. State Inspector's of High Schools Report,
1920, p. 17

b. Ibid., p. 17

c. Ibid., p. 17

d. Minn. Department of Education, Biennial Report, 1918-1920
p. 144

e. Ibid., p. 143

After finding the expenditure for the high school and elementary school in high and graded schools it will be of interest to note the relation these bear each other.

Table 3 indicates these ratios.

TABLE 3.- Per cent that high-school education is of other costs of education in Minnesota, 1919-1920.

1. Per cent high-school education is of total cost of education in graded and high school	22.9%
2. Per cent that high and graded school education is of total public school education	76.4%
3. Per cent that high school education is of total cost of education	17.5%

Table 3 reveals that Minnesota spends somewhat less for high-school education than is spent on the average by the states of the Union, as found by Bonner for 1917-1918. The ratio that the cost of high-school education is to the total cost of public education in Minnesota is 17.5%, while that found by Bonner was 27.0%.¹⁵⁶ It has been seen how high school costs and elementary school costs compare in the aggregate. Now it will be of interest to note how these costs compare on a unit basis.

156. Bureau of Education Bulletin, 1920, No. 19, p. 77

UNIT COSTS IN
EDUCATION IN
MINNESOTA.

It is a well known fact that high-school education is more expensive than that of the elementary school. By discovering the unit costs of education for the elementary school and high school in Minnesota it will be possible to compare Minnesota's ratios in this respect with those of other states and thus obtain a better understanding of the educational situation as it exists in Minnesota. Table 4 reports data on the per capita costs of education in the high school and in the elementary schools.

TABLE 4.- Important factors in unit costs in high-school education in Minnesota, 1919-1920.^a

1. Per capita expenditure in the public schools	\$76.16
2. Total expenditure per capita in elementary school	70.15 ^b
3. Total expenditure per capita high school student enrolled	119.87
4. Ratio between elementary cost per enrolled child and high school student	1.41
5. Expenditure per high school pupil for maintenance	40.75
6. Expenditure per high school pupil for teachers' salaries	79.12

a. Computed from Minn. Department of Education Biennial Report, 1919-1920, p. 144.
One-third the cost of land and equipment was used in estimating costs.

b. Ibid., p. 144

As shown in Table 4, the cost of high school education per enrolled student is found to be \$19.87, while the cost of elementary education is \$70.15. The cost of educating a high-school student in Minnesota is therefore 1.41 times as much as educating an elementary student. This ratio indicates that Minnesota is paying considerably above the average for elementary education. Bonner in his computations found the ratio to be 2.67 times the per capita cost of elementary education.¹⁵⁷

The index of the educational progress of a state may be somewhat indicated by the expenditure a state is willing to make for purposes other than instruction alone. Table 4 indicates that Minnesota spends \$40.75 for maintenance per high-school pupil and \$79.12 per capita for teachers' salaries. This is a ratio of 1.94. Bonner's ratio for nine states was 1.61 or 0.3 less than that for Minnesota.¹⁵⁸ Undoubtedly Minnesota is spending sufficient money for maintenance to have an efficient school system. Having studied the unit costs of the different kinds of schools and the relation these bear to each other, we will turn to the organization and administration of the controlling local units in school organization.

157. Bureau of Education, Bulletin, 1920, No. 19, p. 77

158. Bureau of Education, Bulletin, 1920, No. 19, p. 78

a. Cost of Instruction for high school student per capita	\$52.12
b. Cost of Maintenance " " " " " "	32.37
c. Ratio of cost of instruction to Maintenance " "	1.61

II.

FEATURES PECULIAR TO SCHOOL ORGANIZATION
AND HIGH-SCHOOL SUPPORT.GENERAL ORGANIZATION
AND GOVERNMENT OF THE
SCHOOL SYSTEM.

Every state has a characteristic controlling local unit of school government that administers to the educational needs of its local community. Minnesota, has the traditional district type of school organization, of which there are three kinds, namely: common, special, and independent.¹⁵⁹

Common school districts are administered by a board of three members consisting of a chairman, a treasurer and a clerk, whose term shall be three years.¹⁶⁰ This is the form of district that is usually found in the typical rural community, consisting of a one teacher school. There are over 5000 such districts in Minnesota. Many of the powers and duties that may be necessary for the support and maintenance of schools are similar for the above districts. The common district, however, must submit an estimate of the expenses for the coming year to be voted upon at the annual school meeting.¹⁶¹ This is not required of the other two types. Special provision is also made where the common district embraces more than ten townships. There are the usual number of officers, but the school board has the same powers as the school board in an independent district.¹⁶²

159. Minn. General School Laws, 1921, sec. 1, p. 1

160. Ibid., sec. 68, p. 22

161. Ibid., sec. 78, p. 31

162. Ibid., sec. 134, p. 44

In addition to the regulations controlling the independent district, the officers in the above district have stated salaries ranging from \$200 per year to \$800 according to the number of schools in the district. A tax levy can be made to cover such expenses at the same time that other tax levies are made.¹⁶³

Independent school districts have a school board of six members, who are elected at large from the district for a term of three years. The superintendent of their schools shall be an ex-officio member of the board, but he is not entitled to a vote.¹⁶⁴ This board is almost unlimited in its authority to handle the general business of the schools.¹⁶⁵ There are certain special duties delegated to independent districts. 1. It may make rules relating to its own organization and management. 2. It may provide by a tax levy sufficient funds for the operation of its schools. 3. It may establish and maintain evening schools as a branch of the public schools, which school may be called equivalent to day school. 4. It may receive bequests, donations, etc., and apply the same to the purpose designated.¹⁶⁶

Consolidation has been encouraged by the State Department of Education. There are now 286 consolidated schools in Minnesota.¹⁶⁷ When a new district is formed by consolidation,

163. Ibid., sec. 140, p. 45.

164. Ibid., sec. 69-70, p. 23

165. Ibid., sec. 76, p. 25

166. Ibid., sec. 94, p. 34

167. Minn. Department of Education, Educational Directory 1921-1922, p. 2

such a district shall become an independent district.¹⁶⁸ The term, "consolidated district" indicates the origin of the district and the type of school maintained rather than a peculiar kind of organization.

"Special districts are those which have been organized under special acts of the legislature. Special legislation in such matters was forbidden by an amendment to the constitution adopted in 1892,¹⁶⁹ but owing to the small number of cities in the state certain provisions concerning districts containing more than twenty, or fifty thousand population are practically special legislation. These, however, affect very few communities."¹⁶⁹ All of the districts are authorized to establish high schools. The question is rather of what constitutes a high school than of authority to establish high schools in order to be ranked as a high school, a school must satisfy the following requirements: (1) It shall be in session not less than nine months in the year. (2) It shall admit free of tuition its resident students, but may charge seven dollars per month, not to exceed ten months, from non-resident pupils.¹⁷⁰ (3) It shall have a regular and orderly course of study as prescribed by the State Board of Education.¹⁷¹ (4) It shall be subject to the rules and open to visitation and inspection of the Department of Education.¹⁷²

168. Minn. General School Laws, 1921, sec. 35, p. 11

169. Kelley, Frances, E., History of Public School Support in Minn., p. 9

170. Minn. General School Laws, 1921, sec. 216, p. 64

171. Ibid., sec. 343, p. 93

172. Ibid., sec. 346, p. 94

METHOD AND BASES
OF CLASSIFYING
HIGH SCHOOLS.

A general reclassification of schools doing high school work has taken place under a legislative requirement of 1921. This was done so that the junior and senior high schools, where established, might receive state aid. The present classification of high schools is as follows: (1) A four year high shall be a school giving one or more four year courses beyond the eighth grade. It shall be located in a district which maintains a graded elementary school and which shall employ a superintendent, a high school principal, and one or more high-school teachers. (2) The above high school may consist of a senior high school, junior high school and a graded elementary school. (3) A graded school, which is generally classified as a high school may have a high school department giving instruction in at least two years beyond the eight year elementary course. It shall have also a graded elementary school and a principal with one or more high-school teachers. (4) A junior high school shall be a school having a separate organization and employing a principal and two or more teachers giving instruction in the seventh, eighth and ninth grades. It shall have a six year elementary course.¹⁷³

A consolidated school may be any of the above classes of schools. In the following discussion, "high school" will mean a school maintaining a four year course beyond the eighth year, and "graded school" will mean anything less than the traditional four year high school course. For 1921

173. Minn. Session Laws of 1921, Ch. 467, sec. 5.

243 high schools and 269 graded schools are reported. Of the total number of high schools, all are single high schools in each district, with the exception of Minneapolis, St. Paul, and Duluth. Thus for most purposes the high schools in these cities will be thrown out as not representative of the typical high school district of Minnesota. From a study of the classification of the high schools of Minnesota, we may turn to the method of support of these high schools.

III.

SOURCES OF HIGH-SCHOOL REVENUE.

The present high school support in Minnesota may be divided into three types, federal, state, and local. Federal sources may in reality be called state sources as the state has charge of the federal funds and disburses them. State sources of revenue consists of those moneys derived from sources immediately under the control of the state and disbursed by it to the various school units. Local high-school support consists of all moneys kept by the district where they originate.

FEDERAL APPROPRIATIONS.

The provisions of the act of congress of the United States to promote vocational education was approved by the legislature of Minnesota, February 23, 1917. Each district shall be reimbursed from state and federal funds not to exceed three-fourths of the expenditure for salaries of vocational teachers.¹⁷⁴ For the year closing

174. Minn. General School Laws, 1921, sec. 240, p. 70.

June 30, 1920, the several schools and classes received from federal funds the sum of \$44,936.82.¹⁷⁵ Closely allied to the federal sources of school support are the state sources, particularly the state appropriation to match the federal funds for vocational education.

STATE SOURCES.

There are two methods by which a legislature of a state generally provides funds for its high schools. One is by statutory provision, by which a tax is levied on the general property of the state, and the other is by special appropriations. Minnesota uses the latter method, and this special appropriation is called the annual fund.¹⁷⁶ For the purpose of aiding the high schools as well as other schools, the legislature of 1919 appropriated \$3,104,460.00 for 1921.¹⁷⁷ The amount received by the high schools for the year closing June, 1920, was \$1,240,215.00.¹⁷⁸ The purposes of the special state aid fund are as follows: (1) To assist in providing equal educational opportunities for all the children of the state.

(2) To assist in establishing certain generally accepted minimum standards for all the public schools of the state.

(3) To assist school districts whose tax levies for maintenance are exceptionally high.

(4) To stimulate educational progress by grants of state aid for superior efficiency and high standards and for desirable

175. Minn. Department of Education, Biennial Report, 1918-1920, p. 25

176. Minn. General School Laws, 1921, sec. 210, p. 63

177. Minn. Department of Education, Biennial Report, 1919-1920, p. 96

178. Minn. Department of Education, High School Inspector's Report, 1920, p. 16

educational undertakings not yet generally established.

(5) To provide for the maintenance of teacher training departments in high schools.¹⁷⁹

(6) To pay the tuition of non-resident students.

How these purposes are carried out will be shown in a later discussion. We are now prepared to turn to the by far most important source of school support, namely: local funds. It is important because it is one of the largest sources of school revenue. Since the district is the local unit of school support, our sources of local support will have entirely to do with it. The county will be brought in only as a medium of handling local revenue. The following discussion of sources of local revenue will of necessity mean sources of revenue for both the elementary and high schools, since they are financed from a common fund.

LOCAL SOURCES OF REVENUE.

Local school support is derived from: (1) the county one mill tax, (2) the state tax on money and credits, (3) miscellaneous fines and forfeitures, (4) annual tax levies by school districts, (5) bonds issued by school districts.¹⁸⁰ The largest source of local revenue is that from the annual local tax levy. The legislature of 1921 amended the statute of 1913 regarding the limit of tax levies in the various districts. In common districts the school tax shall not exceed thirty mills on the dollar for support and maintenance, and ten mills for the purchase of school sites and the erection and equipment of school houses. In such districts where ten mills will not produce six hundred

179. Minn. General School Laws, 1921, sec. 215, p. 64.

180. Kelley, Frances, E., Public School Support in Minnesota, p. 29

dollars a greater tax may be levied for school sites and buildings, not to exceed thirty mills on the dollar, nor six hundred in amount. In independent districts, no tax in excess of eight mills on the dollar shall be levied for school sites and the erection of school sites. In special districts, such amounts may be levied as may be allowed by special law at the same time when the revised laws takes effect. Provided, that in a common school district of this state in which there is now or shall thereafter be maintained a high school or graded school, the district school tax for support of schools may not exceed thirty mills on the dollar.¹⁸¹

The regulations governing the issue of local school bonds provide that any school district may, by a majority vote at a regular or special election, direct the school board to issue bonds payable within fifteen years and bearing not more than 7 per cent interest, for the following purposes: (1) purchasing sites for school houses and defraying the expense incurred, (2) for expenses in building, remodeling, repairing, and furnishing school houses, (3) installing heating, ventilating, and plumbing plants in the same, and (4) equipping the same with libraries, apparatus, and other school furniture.¹⁸²

Sinking funds may be invested under stated restrictions, provided that the rate shall not be less than 3 1/2 per cent per annum for the whole period elapsing before maturity thereof.¹⁸³

181. Minn. Session Laws, 1921, sec. 2917,

182. Minn. General School Laws, 1921, sec. 142

183. Ibid., sec. 145, p. 47

In common school districts of ten or more townships, an additional tax may be levied to pay the salaries of members of the school boards.¹⁸⁴

The annual county tax or, as it is sometimes called, the local one mill tax is required by state law, and the proceeds from it are "credited to the school district in which the property taxed is situated".¹⁸⁵ Thus this tax is in reality a district school tax and does little to equalize financial inequalities. From a study of the sources of revenue, we turn to the method and bases of disbursement of these school moneys.

IV.

DISBURSEMENT OF FUNDS.

A satisfactory and efficient method of disbursing funds is necessary. If the moneys are disbursed in such a way as to encourage inequality of educational opportunities and conditions, they fail of their purposes. The disbursement of funds is used as a medium for the centralization and standardization of administration of a state school system. With these considerations in mind, we turn to the disbursement of federal moneys by the state.

FEDERAL FUNDS.

By Congressional legislation the school board is designated the state board to co-operate with the federal board in the administration of the Smith Hughes Act, which has

184. Ibid., sec. 140, p. 45.

185. Ibid., sec. 196, p. 59.

been explained in the section under the "Sources of Revenue".¹⁸⁶ The High-School Board has been superseded by the State Board of Education. Thus it is the State Board of Education that is authorized to make such expenditures as it may deem necessary to carry out the provisions of this act.¹⁸⁷ Before these expenditures may be made by the Board of Education, the state must satisfy certain requirements of the Federal Board of Education which are as follows:

1. The Federal Board must approve the plans of the state for promoting vocational education.
2. The state treasurer is appointed the custodian of federal funds and is responsible for the receipt and disbursement of the same.
3. The State Board of Education must report annually to the Federal Board of Vocational Education.¹⁸⁸
4. Funds may be used by the states for operating expenses only.¹⁸⁹

The method of disbursing this fund is given in the discussion under "State Appropriations" which follows.

STATE APPROPRIATIONS.

The state appropriation to match the federal fund for vocational education is apportioned by the State Board of Education under the same condi-

186. Minn. General School Laws, 1921, sec. 228.

187. Minn. Session Laws, 1919, Ch. 334, sec. 6.

188. Minn. General School Laws, 1921, sec. 232.

189. Keith and Bagley, Schools and the Nation, p. 69.

tions and in the same manner that the federal funds are disbursed,¹⁹⁰ and the two will be discussed together.

The method of disbursing this fund, as of any other special state aid fund, is the following: On or before the first day of October in each year, the commissioner of education reports to the state auditor the number of schools and classes of each entitled to aid. The state auditor through the state treasurer sends the money to the several county treasurers from whence the money is sent to the several districts of the county.¹⁹¹ The county usually is the unit through which funds pass from the state to the school districts.

By far the largest and most important state aid is granted from the annual school fund to the high schools of Minnesota. This is an appropriation that is made biennially by the State legislation. The State Board of Education distributes the special state aid fund to the high schools, and has the right to fix reasonable requirements for schools receiving and sharing in the aid. The high schools must at all times be open to the inspection of the State Board of Education.¹⁹² This Board in fixing the requirements to share in the special state aid had four main purposes in mind, namely: (1) To equalize educational opportunity, (2) To aid in establishing minimum standards, (3) To assist school districts with a high tax levy, (4) To aid and stimulate educational progress. The above purposes are explained more fully in the order, as stated.

190. Minn. Session Laws of 1921, sec. 20.

191. Minn. Session Laws, 1921, sec. 13.

192. Ibid., sec. 4, Ch. 467.

To aid in equalizing educational opportunities.

The following laws have been passed to carry out the above purpose. These laws may apply to high schools as well as to other types of schools.

1. For transportation of pupils in consolidated schools, the state shall reimburse such districts at rates set by the State Board of Education, provided no consolidated school district shall receive yearly more than \$4000 for transportation and board for each consolidated school in such district.

2. The state shall pay forty per cent of the cost of construction of each such building, but not to exceed six thousand dollars to any such district.

3. For the tuition of non-resident high-school pupils, the state shall pay the school district furnishing such high-school instruction at the rate of seven dollars per school month, not to exceed ten months in any school year.

4. Any school district may receive aid for the purchase of library books on the basis of twenty dollars for each teacher employed, with a maximum of forty dollars for each school building in the district, provided the district appropriates a like amount for the same purpose. ¹⁹³

To establish minimum standards.

1. For each high school with a school year of at least nine months, the state shall pay a school district one thousand dollars annually.

2. For each high-school department of at least nine months,

193. Minn. Session Laws, 1921, sec. 7.

the state shall pay a district four hundred dollars annually.

3. For each junior high school of at least nine months the state shall pay a district three hundred dollars annually.

4. For each senior high school of at least nine months, the state shall pay a district six hundred dollars annually.

To assist districts with a high tax levy.

The third purpose of the annual school fund is to assist districts with a high tax levy. This provision applies mostly to high schools and graded schools, as rural districts usually levy very low taxes. This section of the school law states that the state shall pay as supplemental aid one-third of the excess above twenty mills, to any district whose tax levy for maintenance lies between twenty (20) mills and thirty-two (32) mills. If the tax levy for maintenance exceeds thirty-two (32) mills, then, in addition to the above amount, the state shall pay as supplemental aid one-half of such excess above thirty-two mills, provided that no school district shall receive supplemental aid of a tax levy of 20 mills in such district will yield the equivalent of one hundred dollars for each pupil enrolled in the public schools; provided also that no school district shall receive more than two hundred dollars for each elementary teacher and two hundred fifty dollars for each high-school teacher employed.¹⁹⁴ For the year 1918 there would have been 126 high school districts qualifying for aid under this law, whose tax levies were over 20 mills.¹⁹⁵

To aid and stimulate educational progress.

The fourth basis on which special state aid is granted high

194. Minn.Session Laws, 1921, sec. 9.

195. Minn Department of Education, Revision of State Aid, p.42-43.

schools is that of stimulating educational progress. This aid is granted on the basis of the number of special teachers employed, enrollment in classes, and types of work done. This type of aid is generally called aid for special departments.

1. For a department of agriculture the state shall aid as follows: for employing but one or more teachers, not to exceed one thousand dollars.

2. For general industrial training the state shall aid each school within the district as follows: for a department employing one or more teachers, not to exceed six hundred dollars.

3. For home training the state shall aid each school in a district as follows: for a department employing one or more teachers not to exceed six hundred dollars.

4. For commercial training the states aid each school within the district as follows: for a department employing one or more teachers not to exceed six hundred dollars.¹⁹⁶

Stimulating new educational projects.

1. The state shall pay one-half the cost of instruction in evening schools for persons over sixteen years of age and not in attendance upon regular day schools.

2. For teacher training in high schools, the State Board of Education is authorized to establish rules and to determine the amounts of state aid to be granted to any school district for the maintenance of this work. Such aid shall be determined upon the basis of one, two or three teacher departments. The total

196. Minn. Session Laws, 1921, sec. 10.

state aid granted to high schools is not to exceed \$225,000 annually to be distributed by the State Board of Education.

Further details of the requirements for participation in this aid will be discussed under "Conditions of Participation". Table 5 shows in tabular form the bases for the aids received by high schools in Minnesota.

TABLE 5. - Bases for disbursement of annual state aid in Minnesota, 1919-1920.^a

I.

Class of High-school	Bases for disbursement	Amount of aid.
1.Consolidated high schools	Transportation and board of students	(1) Not to exceed \$4000 annually (2) 40% of cost of buildings, not to exceed \$6000 to each building
2.All	Tuition for non-resident high-school pupils	\$7.00 per capita per month
3.All	Aid for library books	\$20 per teacher in school, not to exceed \$40 for each school bldg.
4.All	With high tax levy	(a) Supplemental aid one-third of excess above 20 mills to 32 mills for maintenance If tax levy for maintenance is above 32 mills, an additional of 1/2 of such excess above 32 mills is granted, but limitations are set as to the amount that can be received.

II.

1.Four year	In session 9 mos.	\$1,000
2. High school department	In session 9 mos.	400

(Continued on next page)

Table 5. (Continued)

Class of High-school	Bases for disbursement	Amount of aid.
3. Junior high school	In session 9 mos.	\$300
4. Senior high school	In session 9 mos.	600

III.

Special Department.	Bases for disbursement	Amount of aid
1. Agricultural Department	Employing one or more teachers	\$1,000
2. General Industrial training	Employing one or more teachers	600
3. Home training	Employing one or more teachers	600
4. Commercial training	Employing one or more teachers	600
5. Teacher training	Number of teachers in a department	aggregate \$225,000
6. Evening schools	Pupils over sixteen and not attending day school	one-half the cost of instruction

a. Minn. Session Laws, 1921, Ch. 467, secs. 7-11.

From a discussion of the disbursement of the annual school fund, we shall note what state aid the high schools receive from state apportionment from the following funds.

CURRENT SCHOOL
FUND.

The high schools of the state are benefited by aid both from the Endowment Fund, which consists of the income from the permanent school fund and the Current School Fund, which is derived from a state one mill tax.¹⁹⁷ These funds are distributed semi-annually by the commissioner of education to school districts whose schools have been in session at least six months and in proportion to the number of scholars of school age who have attended at least forty days during the preceding year.¹⁹⁸ Since many high school students are included in the school age 6 - 16 years,¹⁹⁸ as stated in the school census law the schools receive state aid for high school students. The school census law provides that no aid will be granted any district until the census in such district is taken.¹⁹⁹

In concluding the discussion of the disbursement of state funds, we turn to the simpler problem of the disbursement of local funds. It will not be necessary to dwell upon the funds received from the one mill county tax, as this fund is returned to the district on which it is levied and is disbursed in the same way in which district funds are.²⁰⁰

LOCAL FUNDS.

Little difference exists among the classes of school districts as to the disbursement of funds. The proceeds from the general

197. Minn. Session Laws, 1921, Ch. 467, sec. 1.

198. Ibid., Sec. 2-3.

199. Minn. General School Laws, 1921, sec. 286, p. 80.

200. Minn. General School Laws, 1921, sec. 203.

maintenance tax is used for the operation of schools in all classes of districts, and bonds may be issued for permanent improvements under the same conditions in the various districts.²⁰¹

In general, all local funds are disbursed for the purpose for which they were raised. The independent and common districts vary a little in the method of disbursing some of the smaller amounts. For instance in the common district, the treasurer receives a stated salary not to exceed \$25 per annum, which is allowed only after his annual report has been approved by the board.²⁰² The chairman may receive a sum not to exceed \$6 per annum²⁰³ and the clerk may receive 2% of the cash disbursements for the year, but such compensation shall not exceed \$6.00 per year. By special vote at the annual meeting, he may be granted \$50.00 per year.²⁰⁴

The clerk, treasurer, and superintendent in independent districts shall receive such compensation as may be fixed by the district.²⁰⁵

Due to the character of the district, common school districts of ten or more townships are permitted to pay salaries and expenses of the members of the school board by a tax levy in the same manner as is provided for in the support and maintenance of its schools. The members may receive a salary of \$200 to \$800 a year, depending on the number of schools in the

201. Ibid., sec. 142.
 202. Ibid., sec. 105, p. 39.
 203. Ibid., sec. 100, p. 36.
 204. Ibid., sec. 102, p. 36.
 205. Ibid., sec. 99, p. 36.

district.²⁰⁶ What conditions contribute to the sharing of these various funds will be explained in the following discussion of the conditions of participation.

V.

CONDITIONS OF PARTICIPATION.

The requirements of participating in state aid are the means by which the high schools develop. The requirements are effective in maintaining certain standards, or stimulating the growth of new projects and types of education. In a broader sense the conditions for participation have for their objective the enabling of each district to perform efficiently the services required by law and the furthering of the educational interests of the state.²⁰⁷ The Federal Vocational aid has for its purpose the development of vocational education.

STATE REQUIREMENTS FOR FEDERAL AID.

The United States Constitution states that all powers not specifically granted the Federal Government belong to the states. Nevertheless no objection is raised, to the Federal Government's making certain requirements of the state governments for participation in the Federal aid in the promotion of the vocational subjects, (1) agriculture, (2) home economics, (3) trades and industries, and (4) teacher training. The most important requirements are the following: (1) The state plan for vocational education must be approved by the Federal Board of Vocational Training. (2) The funds can be

206. Ibid., sec. 138-140, p. 45.

207. Minn. Session Laws, 1921, sec. 4.

used only for operating expenses. In Minnesota three-fourths of the salaries of the qualified instructors may be paid by state and federal funds. (3) Every dollar of federal money must be matched by state money. (4) A State Vocational Board must be designated to cooperate with the Federal Vocational Board. (5) This State Vocational Board must report annually to the Federal board. (6) No part of the federal fund may be used to aid any but public schools.²⁰⁸ What the results of the present standards of participation will be it is difficult to foretell on account of the newness of national aid to the states. Indications, however, point to great possibilities in the field of vocational training.

DISTRICT REQUIRE-
MENTS.

As the county is not an administrative high-school unit, and serves only as a medium between the state and district for the disbursement of funds, it receives no state aid. Therefore all requirements to share in state funds are placed upon the district directly. Minnesota was not the first state to establish minimum requirements as a basis for grants of state aid, but a thorough investigation of the policy of many other states shows that our own state stands well to the front in this particular.²⁰⁹ Minimum standards may be provided by law, such as the length of the school year, number of school days in week or month, etc. Other standards are often set by the State Department of Educa-

208. Keith and Bagley, Schools and the Nation, p. 69-70.

209. Minn. Department of Education, Revision of State Aid, 1920, p. 74.

tion. They vary according to the type of high school. These standards relate to (1) teachers' qualifications, (2) building and equipment, (3) school enrollment, (4) classification of pupils, (5) records, (6) administration, (7) organization, (8) scholarship, (9) course of study, (10) library.

A decided similarity exists between the different kinds of high schools. Space prevents the enumeration of all the rules and regulations for the various classes. To indicate the variation according to the kind of school, it may be well to tabulate several of the more important requirements.

TABLE 6. Requirements for participating in the Annual Fund in Minnesota, 1919-1920.^a

Class of High School	Minimum valuation of district	Library	Minimum Average attendance	Organization	Qualifications of head of school
Four year high school	\$ 300,000	500 volumes	40 pupils	4 year high school course	(a) 2 yrs. experience (b) 1st grade professional certificate (c) 9 credits in elementary & public sch. administration
High school department	\$ 175,000	250 vol. or more	20 pupils	At least two yrs. high-school work	One year less training than above
Junior high school	\$ 200,000	300 vol. or more	75 pupils in 7th, 8th and 9th grades	7th, 8th and 9th year of 12 year course	Qualification of principal of high-school department
Senior high school	\$ 400,000	400 vol. or more	75 pupils in 10th, 11th and 12th grades of high school	10th, 11th and 12th grades of high school	same as supt. of a four-year high school

a. Minn. Department of Education, Standards of High Schools, pp. 12 - 22.

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129.

REQUIREMENTS FOR
SPECIAL PROJECTS.

For the purpose of stimulating educational progress, the state has established the principle and committed itself to the policy of state support of industrial work. The number of departments has grown very rapidly under this policy. The conditions under which they have developed will be shown in the following discussion.

Any school seeking aid for a special department must make application before the first day of May preceding the school year for which aid is asked. Official blanks must be used.

The requirements for participation in the special aid for the different departments varies according to the department. (1) Agricultural departments in high schools must maintain certain stated curricula including required courses in agriculture. (2) A certain number of students in agricultural classes must be enrolled. (3) Part time instruction must be offered under required methods of work. (4) The teachers of agriculture must be graduates of the State College of Agriculture and must have credits for at least fifteen semester hours in education. (5) Stated requirements control the teacher's conduct in his department. (6) Space and equipment must be provided with not less than a minimum of floor space.²¹⁰

The standards for general industrial courses and commercial courses correspond closely to those of the agricultural course. These two departments do not, however, maintain as high professional standards for their teachers.²¹¹

²¹⁰. Minn. Department of Education, Standards for High Schools, pp. 24-26

²¹¹. Ibid., pp. 25-30.

Home training courses demand similar requirements as do the agricultural courses. The teachers, too, must hold bachelor degrees.²¹²

AID FOR ASSOCIA-
TION.

Every high school, of a central school may claim aid for association.

Certain standards must be maintained by the high school in order to claim this aid. Each central school must have a department of agriculture and a department of home training, and must have supervision over the associated schools. Other requirements relate to the length of the school year, distance of associated school from central school, and number of pupils. This aid applies only to existing associations, which may by statutory provision be terminated by the State Board of Education.²¹³

Another form of state aid is that collected for the tuition of non-resident high-school pupils who live in Minnesota, but who have no high school in their home district.²¹⁴

In the distribution of special state aid the State Board of Education is authorized to regulate the condition of the acceptance of schools and if the funds are found to be insufficient to pay the aid in full, to pro rate this aid among the rural high schools. Special aids are allowed and distributed each year in October.²¹⁵ The amount of aid in the following instances is fixed by the State Board of Education.

212. Ibid., pp. 28-30.

213. Ibid., p. 39.

214. Ibid., pp. 31-34.

215. Ibid., p. 31.

CONSOLIDATION.

(a) High schools located in a consolidated district may be reimbursed at rates determined by the State Board of Education; but no district may receive more than \$4,000 for transportation and board of pupils.²¹⁶ (b) A district may receive from state funds for new buildings 40% of the cost, the amount of aid not to exceed \$6,000.

TEACHER TRAINING.

Reimbursements from state funds will be based upon the expenditures by the local school, which may consist of the salaries of the teachers', or expenditures for library, texts, materials, etc.²¹⁷ The teacher training departments of the state hold a unique position as they are the only special aided departments that are practically under the control of the State Department of Education, which is authorized to make all rules and regulations for the general conduct of the teacher-training departments in the several high schools. The Department of Education sets the minimum salaries at which teachers may be hired, and also makes recommendations for the hiring of teachers by the local high-school boards of education. The results of state control of teacher-training departments have been shown in the efficient, satisfactory teacher-training departments throughout the state.

EVENING SCHOOLS.

For pupils over sixteen years old and not in attendance at day school one-half the cost of instruction.²¹⁸

SUPPLEMENTAL AID.

A supplemental aid is granted to those districts that are overburdened with high

216. Ibid., p. 40.

217. Ibid., p. 40.

218. Ibid., p. 40.

tax levies. If the tax levy for maintenance lies between 20 and 32 mills, the state shall pay one-third the excess above 20 mills. If the tax levy for maintenance exceeds 32 mills, the state shall pay, in addition to the above, one-half such excess above 32 mills. Certain provisions limit the amount the district may receive.²¹⁹

SCHOOL DISTRICTS
AFFECTED BY THE
GROSS EARNINGS TAX LAW.

Aid is provided for school districts wherein at least 30 per cent in value of the prop-^{erty}
^{erty} is exempt from local taxation.²²⁰

erty is exempt from local taxation.

SCHOOL LI-
BRARY.

Each school district shall establish and maintain a school

library in accordance with the classification and standards for each school system, for example a senior high school must have a library of at least 400 volumes, before it may be designated as such. The amount of library aid of itself that is granted to any school district, high school or rural, is small, it acts, however, as an incentive for the general upkeep of the school library.²²¹

AID FOR VOCATIONAL
TRAINING.

A special state appropriation is made by the legislature to match

the Smith-Hughes federal appropriation. These two funds may be considered in conjunction, as the same conditions of participation are required of the high schools. The law provides that

219. Ibid., p. 41.

220. Ibid., p. 41.

221. Minn. Department of Education, High School Standards, 1920. p. 46.

state and federal funds combined may be used for the payment of the salaries of vocational teachers, not to exceed three-fourths of the amounts, in the fields of agriculture, trade and industrial training, and home economics.²²² The general conditions for receiving aid are as follows:

1. All schools receiving aid must be under public supervision and control.

2. The Department of Education has established certain standards for schools wishing to participate in these funds. These requirements relate to the (1) kinds of schools, (2) the plant and equipment, (3) minimum for maintenance, and (4) the courses of study.²²³ A detailed plan of work is outlined in a pamphlet issued by the Department of Education, but space forbids further elaboration of requirements. The qualifications for teachers of these subjects, however, are worthy of mention. Vocational teachers shall be of two classes: (1) trade and industrial, and (2) technical. The minimum qualifications for trade and industrial teachers are (a) a sound elementary education, (b) exceptional skill in the trade or industry to be taught, (c) ability to impart skill to others, (d) good health, (e) character, (f) age between twenty-five and forty years, (g) completion of an established teacher training course after January 1, 1919. The minimum qualifications for the teacher of technical subjects are the completion of a two year technical course in addition to a four-year high-school course.²²⁴ Certif-

222. Ibid., p. 41.

223. Minn. Department of Education, Vocational Education in Minnesota, 1918.

224. Ibid., p. 19.

icates are issued by the Department of Education according to stated rulings.

USES. From the foregoing it has been shown that Minnesota grants a great many kinds of aids to the high schools for diverse and varied purposes, and that very definite specifications are stated as to how the high schools may qualify for these aids. Whether after the funds have reached the unit for disbursement, there are any restrictions as to their uses, forbidden or permissive, will be shown in the following discussion.

ANNUAL FUND. The annual fund may be used for any purpose, as the legislature has prohibited the Department of Education from requiring this fund to be used only for teachers' salaries.²²⁵ Aid to the districts from the State and the Federal funds may be used only for operative work, for example for teachers' salaries.²²⁶

The apportionment aid, received for high school students under sixteen years of age, from the Endowment Fund and the Current School Fund can be used only for the teacher's wages.²²⁷

The only general restriction placed on the use of all school funds, is that made by the State Constitution, in which it states that no school money can be used for schools wherein religious doctrines, creeds, tenets, etc., are taught.²²⁸

225. Minn. Session Laws, 1921, Ch. 467, sec. 4.

226. Ibid., Ch. 467, sec. 21.

227. Minn. General Statutes, 1913, sec. 2762, p. 624.

228. Minn. State Constitution, Art. 8, sec. 3.

LOCAL
FUNDS.

Much latitude is given Minnesota school districts and the officers thereof in performing the services required by law and furthering the interests of their districts. As to the use of local funds, a general regulation effective in all districts is that the money raised must be used for the purpose for which it was intended. Penalties are even inflicted for a violation of this regulation. A treasurer who uses money applicable for teacher's wages for any other purpose shall be personally liable to any teacher who becomes entitled to any part of such fund.²²⁹ What we are concerned with now are the results of Minnesota's administration of the high schools of the state. One index of the efficiency of a school system may be found in the number of high-school students it is reaching.

VI.

RESULTS OF THE PRESENT SYSTEM.

ACCESSIBILITY
TO HIGH SCHOOLS.

If the high school enrollment per 1000 population for Minnesota is compared to that of other states, it is possible to obtain some idea of what the possibilities are, of reaching a maximum number with a high-school education. With this end in view we may compare Minnesota's number of high-school students per 1000 population to that of the average for the United States and with the state ranking highest and that ranking lowest. The most convenient data for comparison is that taken from the Bureau of Education for 1918. For this period, Minnesota is reported as having 20.5 high-school

229. Minn. General School Laws, 1921, sec. 155, p. 49.

pupils to 1000 population, California, 27 students; South Carolina, 5.3; while the average for the United States is 15.6 students.²³⁰ Although Minnesota ranks among the foremost states in reaching her high-school students, she has not by any means reached her maximum possibility in reaching all her people of high school age. For the year 1920 with Minnesota's population 2,386,371,²³¹ and the number of high-school students enrolled 55,782,²³² it is found that Minnesota has raised the number to 23.3 students to every 1,000 population. This is an increase of 2.8 students per 1,000 population over that for the year 1918. How Minnesota compares in the increase in High School enrollment with other states and with that for the United States as a whole may reveal her high-school efficiency, and progress in high-school development.

INCREASE IN EN-
ROLLMENT IN HIGH
SCHOOLS.

The per cents of increase in enrollment in high schools are computed for stated periods. For Minnesota's high school enrollment it was necessary to depend on the reports of the inspectors of high schools and graded schools. The increase in the enrollment in high schools from 1910 to 1918, for the United States was 48.8%.²³³ The increase in Minnesota for classified high schools and graded schools for the same period (1910-1918) was found to be 72.1%.²³⁴ If the increase in enrollment in high

230. Bureau of Education, Bulletin, 1920, No. 19, p. 49.

231. United States Census, 1920.

232. Minn. Department of Education, High School Inspector's Report, 1920, p. 16.

233. Bureau of Education, Bulletin 1920, No. 19, p. 12.

234. Computed from Minn. Reports of Inspectors of High and Graded Schools, 1910-1920.

schools for Minnesota for the years 1918 - 1920, is compared with that of other leading states, notably California and Utah, some idea of what the high school enrollment increases should be, may be obtained. The increase in enrollment for Minnesota for 1918 - 1920 is found to be but 9.5% while that for California covering the same period is 43.9%,²³⁵ and for Utah is 100%. The great increase in high-school enrollment for California and Utah is probably due to their development of vocational education, and is an indication of what is possible to be done by Minnesota in further development of vocational education. The increase in the total population may have some bearing on the increase in high school enrollment. Our findings in this respect show that the total population of the United States has increased 14.9% from 1910 - 1920, that Minnesota's population has increased 15%, which is practically the same as that for the United States. The above data in tabular form follows.

TABLE 7.- Increase in high school enrollment in the United States and several states for the period 1910-1918.

State	Period	Per cent of Increase.
United States	1910 - 1918	79.7%
Minnesota	1910 - 1918	72.1%
Utah	1910 - 1918	143.6%

235. Minn. State Department of Education, Report, 1918-1920,
p. 175

The above table indicates that Minnesota's enrollment has not increased as rapidly as it should have done. Our conclusion would lead us naturally to believe that Minnesota is failing to reach many children of high school age in rural communities.

NUMBER OF
STUDENTS
PER TEACHER.

The department of education has considered the number of students to a teacher of such importance that it has passed a regulation limiting the number of students a teacher may have in a class for instruction. This limitation must inevitably increase the number of teachers in the high schools. The general tendency is at present to decrease the number of students per teacher and thus do more intensive work in the high school. The North Central Association of High Schools has placed the "dead line" at 25 students per teacher. What Minnesota is doing will be shown in the following: To show whether the number of students per teacher has increased or decreased for the last ten years in Minnesota for classified high schools, data was gathered from the reports of high school inspectors and computation made. The results of the investigation indicates that there was a less number of students per teacher the first five years than during the last five years. The maximum was reached in 1916 when there were 29.1 students per teacher. The average for the ten years is found to be 25 students per teacher in the classified high schools. If the graded schools are in-

236. Bureau of Education, Bulletin, 1919, No. 45.

cluded with the high schools, the number of students per teacher is reduced, as over one-half the graded schools have an enrollment of fewer than thirty students. The number of students per teacher in high and graded schools for the years 1919 and 1920, was 23.3 students and 25.5 students, respectively.

Table 8, which follows, will show in tabular form the number of high-school students per teacher for the ten years 1910 to 1920.

TABLE 8.— Number of high-school students per teacher in Minnesota high schools for the period 1910-1920.^a

Year	Number of students per teacher
1910	23.9 students
1911	22.3 "
1912	21.6 "
1913	22.5 "
1914	data incorrect
1915	28.3 students
1916	29.1 "
1917	28.2 "
1918	26.0 "
1919	24.8 "
1920	27.7 "
Average number per teacher 25.0 students	
Maximum	" " " 29.1 "
Minimum	" " " 21.6 "

a. Computed on data from Minn. State High School Inspector's Report, 1910 to 1920.

The above data indicates that Minnesota is about maintaining the standard set by the North Central High School Association, of 25 students per teacher. From the number of students per teacher we turn to study the kind of teachers and the standards maintained in teaching the high school population.

QUALIFICATIONS
OF THE TEACH-
ING FORCE.

Although much depends upon the type of teacher in the school, more depends upon the standards in qualifications and certifications to teachers maintained by the Department of Education. Minnesota stands among the foremost states in its requirements for high-school teachers. The minimum requirement for high school teachers is a bachelor's degree or the equivalent, including a teacher's certificate issued by the College of Education of the University of Minnesota. The superintendent must have the following qualifications as a minimum:

1. Two years of public school experience.
 2. A first grade professional certificate, based on a bachelor's degree or the equivalent.
 3. Nine quarter hours or six semester hours of training in elementary school supervision and public school administration.²³⁷
- How well Minnesota is maintaining this standard is shown by a study, made by Haggerty of the University of Minnesota, of the minimum qualifications in training and experience for 236 city superintendents and 243 high-school principals. The findings as

237. Minn. Department of Education, Standards for High Schools, 1921, p. 15

shown in Table 9, reveal that 89.8 per cent of the superintendents of Minnesota have the minimum requirement of a bachelor's degree or more. A wider survey of the other high school teachers would probably reveal a similar situation. The data in Table 10 shows a substantial background of experience, for superintendents a median of 10.82 years, and for principals, a median of 5.44 years. The training and experience of Minnesota city high-school administrators would seem to give them a very respectable professional status.

TABLE 9. - Years of experience of high-school administrators in Minnesota, 1921.^a

Adminis- trater	Total No.	Median exp. in years	Maximum in yrs.	Minimum in yrs.	No. of admin- istrators without expe- rience
Supt.	236	10.82 yrs.	35 yrs.	0	1
H.S.Prin.	243	5.44 yrs.	37 yrs.	0	20
Jr.H.S.Prin.		11.00 yrs.	21 yrs.	0	1
Assist. H.S.Prin.		16.50 yrs.	25 yrs.		0

a. Unpublished study by Dean Haggerty of the College of Education, Univ. of Minn.

TABLE 10. - Qualifications of Superintendents
in Minnesota for 1931.^a

	Minimum	Median	Maximum	Per cent with Minimum train.	Per cent with College degree
Supts.	Grade	Bachelor's degree	Ph.D.	89.8%	89.8%

a. Unpublished study by Dean Haggerty of the
College of Education, Univ. of Minn.

Thus far we have dwelt upon the requirements for the regular high school teacher. Minnesota has also taken a forward step in requiring a high standard of training and experience of the teachers of vocational education. The qualifications of full time teachers of agriculture under the Smith-Hughes Act are higher than for the regular high-school teachers of agriculture. In addition to the qualifications and training of the regular agricultural teacher, a person qualifying under the Smith-Hughes Act must have two years experience and must be approved by the State Board of Federal Vocations and the Department of Education.²³⁸ Similar plans, well formulated, have been enforced

238. Minn. Department of Education, Vocational Education in
Minnesota, 1918, p. 9

already for the other departments of home economics, trade and industrial training, etc.

In the preceding discussion an attempt was made to show Minnesota's status among the other states of the Union by showing the number of children of school age she is reaching, by her increase in enrollment and the qualifications of her teaching force. The following indicates what inequalities exist under her present school system.

INEQUALITIES IN THE PRESENT SYSTEM.

EXPENDITURES AS
BASED ON LOCAL
MAINTENANCE TAX
IN THE SEVERAL
DISTRICTS.

As satisfactory a method as any to express what inequalities exist among the districts in financing the school system, is to compare the local tax levies for maintenance in the several districts. 227 high-school districts out of the 240 the total number of high schools for Minnesota for the year 1919-1920 were selected for comparative purposes. Three cities, Minneapolis, St. Paul, and Duluth are not included in the list, as each of them has more than one high school, and they do not represent the typical district of Minnesota. Table 11, which follows, indicates the variation in tax levies and the per cent of high school students in districts where excessive tax levies are made.

TABLE 11. - Maintenance tax levies in 227
high school districts of Minnesota,
1919 - 1920.a

Group	No. of dists.	Number of children	Number of mills tax levy
I	1	62	87.00 - 87.99
II	1	103	83.00 - 83.99
III	1	65	80.00 - 80.99
IV	1	59	72.00 - 72.99
V	1	92	63.00 - 63.99
VI	0	0	62.00 - 62.99
VII	2	176	61.00 - 61.99
VIII	1	64	60.00 - 60.99
IX	0	0	59.00 - 59.99
X	1	140	58.00 - 58.99
XI	0	0	57.00 - 57.99
XII	2	265	56.00 - 56.99
XIII	1	121	55.00 - 55.99
XIV	1	111	54.00 - 54.99
XV	1	167	53.00 - 53.99
XVI	0	0	52.00 - 52.99
XVII	1	160	51.00 - 51.99
XVIII	2	292	50.00 - 50.99
XIX	1	74	49.00 - 49.99
XX	3	255	48.00 - 48.99
XXI	3	200	47.00 - 47.99
XXII	1	412	46.00 - 46.99
XXIII	4	443	45.00 - 45.99
XXIV	2	336	44.00 - 44.99
XXV	2	207	43.00 - 43.99
XXVI	1	157	42.00 - 42.99
XXVII	4	599	41.00 - 41.99
XXVIII	3	320	40.00 - 40.99
XXIX	5	514	39.00 - 39.99
XXX	2	197	38.00 - 38.99
XXXI	4	699	37.00 - 37.99
XXXII	5	627	36.00 - 36.99
XXXIII	8	1212	35.00 - 35.99
XXXIX	8	1255	34.00 - 34.99
XXXV	4	1208	33.00 - 33.99
XXXVI	9	1442	32.00 - 32.99
XXXVII	10	1693	31.00 - 31.99
XXXVIII	11	1755	30.00 - 30.99
XXXIX	11	1476	29.00 - 29.99
XL	9	1032	28.00 - 28.99
XLI	10	1267	27.00 - 27.99
XLII	16	1763	26.00 - 26.99
XLIII	9	1175	25.00 - 25.99
XLIV	5	578	24.00 - 24.99
XLV	10	1772	23.00 - 23.99

(Continued on next page)

Table 11. (Continued)

Group	No. of dists.	Number of children	Number of mills tax for maintenance
XLVI	7	704	22.00 - 22.99
XLVII	13	1680	21.00 - 21.99
XLVIII	3	584	20.00 - 20.99
XLIX	9	1032	19.00 - 19.99
L	5	916	18.00 - 18.99
LI	4	943	17.00 - 17.99
LII	5	399	16.00 - 16.99
LIII	1	39	15.00 - 15.99
LIX	0	0	14.00 - 14.99
LX	2	218	13.00 - 13.99
LVI	0	0	12.00 - 12.99
LVII	0	0	11.00 - 11.99
LVIII	1	575	10.00 - 10.99
Total	227	31,637	Average 31.40 mills
	Median 28.42 mills		

a. Department of Education, High School
Inspector's Report 1919-1920, p. 44-49

Table 11, shows that 17,128 students or 54.1% of the total number in the middle 50 percentile, representing 127 districts or 56% of all the districts, pay from 22.68 mills to 35.05 mills. In the lower 25 percentile which represents 43 districts and 6386 students, tax levies vary from 10 mills to 22.00 mills. In accordance with the preceding data, there are 57 districts, with an enrollment of 8,123 students, whose tax levies vary from 35.05 mills to 87.00 mills. The

differential in the local tax levy for the total number of districts is 76.76 mills, which is 2.7 times as large as the median tax levy. From a study of the tax levies in the several districts, we turn to study the aid per capita received from the state for the various districts. The state should distribute the aid according to the needs of the district. What the situation really is, the following table indicates.

FACTORS IN THE
INEQUALITIES.

For the purpose of showing the inequalities that exist in the ability to finance school systems and in the results obtained, several typical high school districts were selected among the high-school districts of the state. Hibbing was included on account of its extremely low tax levy and its enormous wealth. The reason for choosing the others, was their similarity of enrollment, from which we might expect equal responsibilities in the education of high-school students, and maintenance of uniform standards. Table 12 shows our findings for six high school districts of Minnesota.

TABLE 12. - Factors of inequalities in six high school district.a

High School District	Number of Students	Special Departs.	Per capita cost of instruction	Per capita aid from state	Local tax levy	Assessed Valuation	Per cent aid is of cost of inst.per capita
1. Hibbing	575	45	\$ 200.30	\$ 17.00	10.24	122,285,277	8.4%
2. Morton	65	1	63.90	55.27	16.50	\$ 560,730	86.4%
3. Shakopee	79	4	96.45	46.81	16.90	808,313	48.5%
4. Pine City	121	5	77.40	50.74	55.20	361,013	65.5%
5. Bagley	70	3	108.07	50.64	56.60	241,155	46.8%
6. Blackduck	65	4	107.40	97.67	80.20	177,013	90. %

a. Computed from Minn. State High School Inspector's Report, 1920 and Biennial Report, 1919 - 1920.

Table 12 shows that in these five high-school districts where factors should be similar, we find a differential of four in the number of special departments. The number of special departments is a marked index of the enrichment of curriculum for the educational efficiency of a school system. In the per capita cost of instruction there is a differential of \$44.17 per capita between the costs for Morton and that for Bagley in favor of Bagley. Morton levies a tax of 16.50 mills, while Bagley levies a tax of 50.64 mills. On the other hand Morton receives 86.4% of the cost of instruction per capita from the State while Bagley receives but 46.8% from the state. This is not too great a difference were it based on the ability to pay, but in this case Morton is clearly taking advantage of state money to keep down its local tax rates. A further discussion of the other items of Table 12 discloses a similar unequal adjustment. The case of Hibbing, however, is worthy of note on account of its enormous assessed valuation in comparison with other high school districts, e.g. Blackduck. Its assessed valuation is nearly 700 times that of Blackduck yet it educates only about eight times the number of high-school students that Blackduck does. In this case the differential in property is so great that only a uniform state tax large enough to equalize school burdens would be able to adjust the inequalities.

Since teachers' wages constitute the larger part of the cost of running a school, we may compare the salaries of teachers in the several high school districts as well as Minnesota's salaries with those paid in other states.

TEACHERS'
SALARIES IN
MINNESOTA.

To study the salary schedule of Minnesota, 67 Minnesota high-schools were selected alphabetically from A to F, inclusive, from the high-school inspector's report for 1919 - 1920. High-school teachers, as reported here include high-school principals and assistant principals. This group of high schools is large enough to indicate a fair sampling of all high schools of Minnesota, both in geographical location and in size of the schools. The minimum salary paid for these 67 high schools was \$786, and the maximum paid was \$1786. These figures give a differential of \$1000 in salary for the total number of teachers (302). Table 13, following, shows findings on the salary schedule for 67 high schools.

TABLE 13. - Salary schedules of high school teachers in 67 high-school districts in Minnesota, 1919-1920.^a

Group	No. of teachers	No. of districts	Average salaries.
I	11	2	\$ 700 - \$7.99
II	12	4	800 - 8.99
III	64	21	900 - 9.99
IV	72	18	1000 - 10.99
V	51	8	1100 - 11.99
VI	46	5	1200 - 12.99
VII	11	1	1300 - 13.99
VIII	4	1	1400 - 14.99
IX	7	1	1500 - 15.99
X	6	1	1600 - 16.99
XI	18	3	1700 - 17.99
Total	302	67	
Median salary		Minimum salary	Maximum salary
\$989		\$786	\$1786

a. Minn. Department of Education, High School Inspector's Report, 1919-1920, p. 44-49

As stated in a preceding paragraph, high-school principals were included with high-school teachers. Therefore it may be well to make a survey of the principals' and superintendents' salaries. Haggerty, of the University of Minnesota, has compiled data for 1921 on salaries of administrators and supervisors for the year 1920 - 1921. The following table shows his findings.

TABLE 14. - Salaries of administrators and supervisors in Minnesota, 1920 - 1921.

Position	Min.	Mode	Median	Aver.	Max.	Total
1. H.S.Prin.	\$1250	\$1500	\$1707	\$1870	\$4400	\$454,650
2. Jr.H.S. Prin.	1200	1250	1700	1912	3000	45,000
3. Asst.H.S. Prin.	2000	3100	2900	2940	3600	14,700
4. Supt.	1800	3000	2708	2904	8000	685,450

The data in Table 14, when compared to that in Table 13, indicate that many of the high-school instructors are rather poorly paid. Table 14 also indicates that the superintendents as a class are well paid. It will be of interest to compare Minnesota's salaries with those of other states. These salaries do not include the salaries of superintendents who devote half or more than half time to supervision.

TABLE 15. - Salaries paid high-school teachers in several states of the Union in cities from 2500 - 10,000 population, 1920-1921.^a

State	Salary
California	\$ 2045
South Dakota	1752
North Dakota	1635
Utah	1606
Minnesota	1513

a. Bureau of Education, Salaries of High School Teachers in U.S., School and Society, Feb. 18, 1922, pp. 196 - 197.

SCHOOL ATTEN-
DANCE.

After studying the results of a school system by means of its expenditure, we may turn to a survey of its attendance to note how well it is serving its high-school students. The total enrollment in high schools for the years 1919-1920, was 49,060 students; of these, 41,043 were in attendance daily, which is 83% of the whole number. There was included in this total enrollment 8,269²³⁹ non-resident students, which is 16.8 per cent of this enrollment. The ratio of non-resident high-school students in graded schools is still higher, being 19.4% of all the high-school students enrolled in graded schools. A non-resident student, as stated

239. Minn. Department of Education, State High-School Inspector's Report, 1920, p. 16.

above is one who lives in a district in which there is no high school. This large percentage of rural students, is due to a scarcity of high schools in rural communities. 13,331 pupils were graduated from the eighth grade in 1918-1919.²⁴⁰ The first year high-school enrollment for the following year, 1919-1920, was 17,874,²⁴¹ or 4,543 more students than had graduated from the eighth grade the preceding year. This is an increase of 34% over the preceding year, most of which increase is presumably of non-resident pupils. Surely something more should be done than is being done to accommodate this class of student.

SCHOOL IN-
VESTMENT.

State school systems may be evaluated by the amount of school property for each child enrolled. Some of our poorer school systems in the southern states, notably in Mississippi, have only \$8.97 of school property per school child enrolled, while the more progressive ones such as Montana or California, have \$149.75.²⁴² For this same time, 1917-1918, Minnesota had \$129.25 for each school child enrolled and ranked 12 among the states of the Union in this respect. The sum \$129.25 is the average amount of school property behind each school child for the whole state and has little bearing on the amount of school property behind each school child in the several local school units. Inequalities in the amount of school property for each enrolled school child

240. Minn. Department of Education, High-School Inspector's Report, 1919, p. 19.

241. Ibid., 1920, p. 16.

242. Bureau of Education, Bulletin, 1920, No. 11, p. 47

is as great as the inequalities in the assessed valuations of the several districts, and if anything it is of greater significance, as a school district must have buildings and facilities in order to secure efficiency. Table 16 indicates the amount of school property behind each school child enrolled in the high and graded schools in each county. It was necessary to find the per capita valuation for both the elementary and high-school pupil, as both schools generally occupy the same building. If the valuations were pro rated, it would have little effect on the comparative relations. To show the inequalities in school properties, nineteen counties were selected from among the counties of the state representing a minimum and a maximum per capita valuation. The average valuation of each graded and high-school building was found, as well as the per capita valuation. It is noted that in Table 16 there is a differential of \$1,936.30 per capita between the minimum and the maximum, or stating it in another way, the per capita valuation of school property in Kandiyohi County is 60 times as great as it is in Stearns County. Still Stearns County high and graded schools are supported by a tax levy about one mill higher than the average for Kandiyohi. Table 16, which follows, reveals the findings for the inequalities in valuations existing among the several high and graded schools of several counties.

TABLE 16. - Per capita valuation of school buildings in eighteen counties of Minnesota, 1919-1920. a

12-21-6M

Name of County	No. of High and graded schools.	No. of school children enrolled.	Aver. valuation per school	Valuation per capita enrolled child.
Stearns	15	3258	\$ 6,668	\$ 30.70
Aitkin	6	1069	13,666	76.70
Lake	14	1541	16,214	147.30
Beltrami	14	3128	18,752	161.30
Norman	9	1333	19,777	133.50
Wilkin	7	1165	22,285	133.90
Cass	11	1948	22,777	128.00
Clearwater	3	418	27,000	194.00
Carver	6	984	34,500	209.00
Chippewa	5	1876	37,000	98.00
Benton	2	1180	70,000	118.00
Big Stone	6	1172	78,468	401.00
St. Louis	154	41,811	81,529	299.00
Crow Wing	16	3970	95,000	383.00
Dodge	7	1450	100,000	482.00
Goodhue	13	3249	141,690	534.00
Mahnomen	3	786	283,000	1081.00
Kandiyohi	9	1967	430,000	1967.00
Total	18	71,205	\$460,058	
Minimum per capita		Maximum per capita		Average valuation per dist.
\$ 30.70		\$1967.00		\$2781

a. Computed from data obtained from Minn. Department of Education, Biennial Report, 1919-1920, pp. 184 and 156.

VII.

NEEDS AND PROVISIONS.

A survey of Minnesota's high school system is propitious at this time, following as it does, the recommendations of the Committee of the Department of Education on the Revision of State Aid to Schools, particularly high schools. A fund of information was gathered by the Committee for the use of the State Legislature of 1921, which later enacted many of the recommendations into laws, most of which, but not all, were desirable ones. The law limiting the tax levy in the districts of Minnesota is probably as unjust an arrangement as could be thought of. It not only protects the richer districts against a high tax levy, by permitting poor districts to levy a higher tax rate, but it stresses the traditional principle that the school budget should conform to the tax levy of the district and not the tax levy to the needs of the schools. If there be danger of imposing too high a tax levy on a local district, then the most feasible thing to do is to enlarge the taxing unit. This has already been done successfully by certain states, notably Utah. The reorganization of the district school system into the county unit plan eliminates the necessity of levying such exorbitantly high taxes in certain districts and of permitting ridiculously low taxes in others. In the comparison of tax levies in the three states under consideration, it is seen that in Utah under the county unit plan the maximum tax levied in any county is only 3.25 times

the minimum tax levy. In North Dakota the maximum is 5.57 times the minimum and in Minnesota it is 8.56 times the minimum. From the above data for Utah, it appears, however, that even the county unit plan is insufficient to establish a satisfactory distribution of wealth for the maintenance of uniform standards of school efficiency. Swift, of the University of Minnesota in his monograph "State Policies in Public School Finances," advocates a still larger taxing unit for the maintenance of the public schools of the state. He advises the equalizing of educational opportunity by means of a state tax sufficient to pay the salaries of the teachers, which make up approximately three-fourths of the total expenditure for public school education. The Committee, "On the Revision of State Aid", after a careful study of the policies of other states relative to grants of state funds for the support of public education, advocates a uniform state tax on all the property of the state to take the place of the present biennial appropriation.²⁴⁴

ADMINIS-
TRATION.

Second in importance to the amount of aid granted to high schools is the method of granting it. If state aid used by wealthy districts to keep down an already low tax levy, its use is more detrimental to a community than helpful. Minnesota, however, has at the last meeting of the legislature, enacted educational laws which have as their objectives: (1) the establishment of minimum standards, (2) assistance to districts with a high tax levy, (3) stimulation for educational progress, and (4) equalization of educational opportunity. These purposes have probably been realized as well

244. Minn. Dept. of Educ. Committee, Revision of State Aid, 1920, p. 4

as might be expected in the already existing high schools under the district organization and as provided by law. Data from a preceding chapter, however, shows that Utah has a ratio of 45.2 high-school students to 1000 population, while Minnesota has but 23.3 students per 1000 population. This is a decided indication that there is a large per cent of Minnesota children who should be in high school, who are not there. The Committee of the Department of Education writes that over 1,000 children in Minnesota from eight to sixteen years of age have never attended school because of the distance to the nearest school and for the same reason, 4,000 more have attended so irregularly as to be practically illiterate.²⁴⁵ This is not alone a public school problem, but is a high-school problem to the extent that nearly half of these children mentioned heretofore are of an age to be in high school. In addition to these isolated children, there are 200,462²⁴⁶ children in semi-graded and rural schools. According to data from State High School Inspectors' Reports, 16% of the high-school enrollments for several years back have been non-resident students. Applying this ratio to the rural and semi-graded enrollment, there are 168,389 children of these who have absolutely no chance for a high-school education. State aid to equalize educational opportunity has not been successful in helping this class of children. Judging from the results obtained in Utah under the county unit organization, in reaching the children of high-school age, the establishment of a county unit plan in Minnesota would not be a doubtful experiment.

245. Ibid., p. 5

246. Minn. Dept. of Educ. Bienn. Rept., 1919-1920, p. 157

SUPERVISION.

New projects in education are aided more liberally in Minnesota than in either Utah or North Dakota. The results of this stimulation seem to have returned profits on the investment in the building up of certain very efficient high-school systems. When certain educational undertakings become well established the need of stimulation may cease and only a standardizing aid be granted. Home training and commercial training have now reached that stage.²⁴⁷ It is suggested at this time that health supervision as a new undertaking be aided. The proposed law as drawn up by the State Department of Education is probably satisfactory.²⁴⁸ Its elaboration in detail prevents statement at this time.

Little consideration heretofore has been given those children of high-school age who are indifferent to high-school education or who are "drop outs". The Smith-Hughes aid has called attention to this class in particular as well as to others not in high school. Some states in the development of vocational training have made statutory provision to compel all children between fourteen and eighteen years of age who are not in regular attendance upon a full time school to attend part time classes. Minnesota has not yet enacted such a law, but her well formulated plan in Vocational Education would indicate that she is ready for it. As suggested by the Department of Education in the proposed law, a school district might be aided on a percentage basis according to the enrollment in the school and the number of teachers.²⁴⁹

247. Ibid., p. 66.

248. Ibid., p. 13.

249. Ibid., p. 16

CHAPTER IV
CONCLUSIONS AND RECOMMENDATIONS.

Results of the Present System of High-School Aid in Utah,
North Dakota, and Minnesota.

In the development of the problem of state and county aid to high schools, Utah, North Dakota, and Minnesota have been considered as to (1) sources of revenue, (2) disbursement of aid, (3) conditions of participation, (4) uses, and (5) results of the system of school support. In our conclusion the first four of these may be summed up in the fifth or the results of the policies of administering aid. Any business is judged by the results obtained, this is as true of a state school system as of a business house. The high schools of a state may show results in the number of high school students per 1000 population it is educating. The ratios for the three states are worthy of comparison. Table 17 indicates these ratios.

TABLE 17. - Number of high school students per 1000
population in Utah, North Dakota and Minnesota,
in 1919 - 1920. a

State	No. of high school students per 1000 population in 1920
Utah	45.2
Minnesota	23.3
North Dakota	22.7

a. Computed from data in the state reports of the
respective states.

Table 17 indicates that Utah is educating approximately twice as large a proportion of high school students as is either Minnesota or North Dakota. If the increase in enrollment in high school attendance from 1918 to 1920, is considered, a similar situation is revealed. Utah's rate of increase in high-school enrollment is over 4 1/2 times that of North Dakota, and more than ten times that of Minnesota. Table 18 indicates these increases for the states Minnesota, North Dakota, and Utah.

TABLE 18. - Increase in high school enrollment for Minnesota, North Dakota and Utah, 1918-1920.

State	Per cent of increase in enrollment, 1918-1920
Minnesota	9.5%
North Dakota	21.0%
Utah	100. %

The number of non-resident high-school students in a state is an index of the accessibility of high schools to the state's population. Data from the reports of the three states under consideration show that Utah has no non-resident high-school students reported, that North Dakota reports 26% of the high-school enrollment as non-resident, and Minnesota has enrolled in her high schools 16% non-resident high-school students. These figures indicate that North Dakota and Minnesota have made no statutory provision for the welfare of high-school students in many communities as well as no actual provision for high schools for every school district in the state and the fact that every school district except one offers some form of high school instruction sup-

ports the figures that Utah is reaching approximately 90% of her high school census.

In comparing data on local tax levies in high-school districts for the three states, the following situation was revealed: Utah's maximum county high school district tax levy was 3.25 times its minimum county high-school district tax levy; North Dakota's maximum high school district tax levy was 5.57 times the minimum high-school district tax levy; Minnesota's minimum high school district tax levy was 8.56 times the minimum high-school district levy. It is seen therefore, that the county unit plan of local school organization has a tendency to equalize the school tax levies among the high school districts of the state. A further discussion of the reasons for the above results in the three states will be taken up under the section on "Organization".

ORGANIZA-
TION.

The primary purpose of the controlling local school unit in a state is the raising of school revenue. Utah has the county district, as the controlling local unit, and Minnesota and North Dakota have the district system plan. Under the county unit plan Utah has surpassed both North Dakota and Minnesota in equalizing educational opportunity, as shown in preceding tables in this chapter, by the larger number of high school students per 1000 population she is reaching, in equalizing the tax levies among the several school districts, and in making accessible high-school education to a larger number of children of high school age. The accessibility of high-school education is indicated by Utah's having no non-resident students.

SOURCES OF
REVENUE.

The sources for raising revenue for high-school support are through the Federal, state, and local organizations. The similarity of method used for the raising of revenue by the federal sources for the three states needs no comparison. The three states differ, however, in the method by which they raise state revenue for their high schools. Utah levies a uniform tax on all the property of the state to raise the Annual High-School Fund, and in North Dakota and in Minnesota the legislatures make biennial appropriations for the use of the high schools. As to which is the better method of raising revenue, a quotation from the "Committee of the Minnesota State Department" on the Revision of State Aid supports the uniform state tax. "The proposal is made to substitute a two mill state tax for existing biennial appropriations. The purpose is to provide a dependable source of school support."²⁵⁰ Swift of the College of Education, University of Minnesota, likewise supports a State mill tax, in the following quotation: "Despite the fact that all the states employ appropriations as a method of providing school revenues; whereas only 29, a state school tax of any sort, from the standpoint both of principle and of practical advantages the balance would seem to justify a school tax."²⁵¹

METHOD OF
DISBURSE-
MENT.

States differ as to the method and bases of the disbursement of funds for high schools, particularly certain kinds of funds. In the

250. Utah State Constitution, Article XIII, sec. 7

251. Minn. Dept. of Education, Committee on the Revision of State Aid, 1920, p.4

252. Bureau of Education, Bulletin 1922, No. 6, p. 50.

disbursement of federal and local funds, however, the three states under consideration show slight variation. The bases on which the federal funds have been apportioned are practically the same in Utah, North Dakota, and Minnesota. The development of vocational education for which federal aid is granted is rather dependent on the statutory provision made by the state than upon the method and bases for the disbursement of funds. Utah claims a large part-time enrollment, due to the passage of the Compulsory Part Time Attendance law. The plans formulated for vocational education in Minnesota indicate that Minnesota is now ready for the passage of a similar law. This law would bring into high school a large number of children who are fourteen to eighteen years of age.

As stated before, states differ greatly in the method and bases of the disbursement of state funds as aid to high schools. When formulating a plan for the disbursement of this fund, many factors must of necessity, be taken into consideration, as for instance, the condition and character of the state. There is a general agreement, however, among the states as to the purposes of granting the aid, namely: (1) to equalize educational opportunities and burdens; (2) to stimulate local school support; (3) to furnish state authorities a lever for unifying, standardizing and elevating the high schools of the state. These purposes are not always fully realized. The methods and bases used for the disbursement of the state high-school funds in Utah, North Dakota, and Minnesota are as follows:

(1) Utah levies a state mill tax for revenue for the aid of high schools, to be apportioned among the several high schools of the state on a per capita basis according to the number of high-school students in attendance at least twenty weeks during the school year.²⁵³ (2) In North Dakota the legislature appropriates a biennial sum to be apportioned in flat sums among the several high school districts of the state according to minimum requirements for the maintenance of high schools stated by the State Department of Education. (3) Minnesota also makes use of the legislative appropriation and authorizes the Department of Education to formulate a plan for the disbursement of the funds.

The plans for apportioning aid to high schools used by either Utah or North Dakota can not aid much in equalizing school burdens among the several high-school districts. The Utah plan discriminates against the small high-schools. For instance, Salt Lake City receives \$31,536, which is nearly one-fourth of all the high school aid granted²⁵⁴ to all the high schools of the state. North Dakota's plan reveals the same injustice in the method of disbursement of aid. For example, Fairmont with a local tax levy of 7.81 mills and property valued at \$2,641,593 receives as much as Rugby with a 29.3 mills tax levy and a property valuation of \$930,552.²⁵⁵ The aid undoubtedly has been successful in maintaining certain minimum standards.

Minnesota's plan for the method and bases of distributing aid includes approximately twelve different kinds

253. Utah General Sch. Laws 1921, sec. 4580, p. 19.

254. Utah Supt. of Public Instruction Report, 1918-1920, p. 7, Financial Report.

255. N. Dak. State High School Inspector's Report, 1921, p. 26

of aids to high schools demanding compliance with stated requirements by law or regulations of the State Department of Education. She grants a flat sum to the school according to its type, for the maintenance of certain minimum standards, but accompanying this form of aid are several others to stimulate educational progress and to assist school districts which have a high tax levy. Legislation, however, for the last named purpose has been too recent to permit adequate measurement of results, which will probably tend toward an equalization of school burdens among the several high-school districts. Under the district system of schools, however, and where such a great variation in property valuation exists among the several districts, it will be impossible to obtain equality of school burdens until some system of reorganization of the local school unit takes place and a larger school revenue is granted to high schools by the state. To exemplify the great variation in property, Hibbing has approximately 700 times the valuation that Blackduck has, levies one-eighth the tax, and receives one-fifth the high school aid from the state that Blackduck does and is able to pay \$200 per capita for instruction to Blackduck's \$107 per capita. In the face of the above inequalities Minnesota's plan as worked out would be undoubtedly satisfactory if used with the county unit plan. Where only one type of aid is granted, the plan used by California is satisfactory. This method is a combination of the teacher and pupil basis with slight modifications. The method is as follows:

1. The state shall appropriate such a sum per pupil in

daily attendance as shall constitute $\frac{3}{4}$ of the cost of education of the high-school pupil.

2. One-third of the high-school fund is apportioned to recognized high schools irrespective of attendance, two-thirds shall be apportioned among such schools pro rata upon the basis of average daily attendance.

3. The money apportioned to any high school from the state high school fund shall be used only for the payment of teachers' salaries.

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