SCHOOL FUNDS AND THEIR APPORTIONMENT

A Consideration of the Subject with Reference
to a More General Equalization of both the Burdens
and the Advantages of Education

BY

ELLWOOD P. CUBBERLEY, A. M.,

Associate Professor of Education in the Leland Stanford Junior University
Honorary Fellow, Teachers College, 1904–05

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PREFACE.

One of the most important administrative problems of to-day is how properly to finance the school system of a state, as the question of sufficient revenue lies back of almost every other problem. This monograph is an attempt to deal with this question, but with particular reference to the proper distribution of the revenues at hand. I have accordingly made a somewhat detailed examination of the various bases of apportionment, and have attempted to establish certain principles which should control in the arranging or the rearranging of any state apportionment plan.

Almost every year some one or more of the different states of our Union makes an attempt to evolve a better system of school taxation and apportionment, with a view to relieving somewhat the excessive burdens and to providing better and more uniform school facilities for all of the children of the state. The effort very commonly takes the form of an attempt to increase the state school tax, without any attempt to improve the apportionment plan under which all revenue from school taxation is distributed to the various school units of the state. However desirable and even necessary it may be to provide more money with which to maintain the schools of the state, a still more important question is how to distribute this money so as to secure the best results. In two-thirds of the states of the Union no adequate provision is made for the maintenance of the smaller schools of the state, and usually these are maintained in a most unsatisfactory manner and at a sacrifice entirely out of proportion to the local benefits received. On the other hand, the cities, with their aggregations of people and wealth, are able to maintain excellent school systems on a relatively small expenditure. Justice and equity demand a rearrangement of the apportionment plan so as to place a larger proportion of aid where it is most needed. There is little excuse for a system of state taxation for education if the income from such taxation is to be distributed in a larger proportion to those

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communities best able to care for themselves. Such a statement does not imply hostility to the cities. On the contrary, I have repeatedly pointed out that the cities do not receive any proper recognition for the longer term or the many additional educational advantages which they now provide. Under such a thoroughly unjust apportionment basis as the school census, however, the cities now receive the lion's share, and many are paid an amount out of all proportion to their relative needs or efforts made.

Throughout the discussion which follows I have kept in mind certain principles which seem to me to be sound. In the first place I have conceived of a state system of schools instead of a series of local systems. Without such a conception no equalization of either the burdens or the advantages of education is possible. In the second place, I have stated repeatedly that the maintenance of good schools is not, like the maintenance of sewers or streets, a matter of local interest, but is in part for the common good of all, and hence that the burden of maintaining what is for the common good of all should be in part assumed by the state as a whole. In the third place, I have held that the aid given should not be given indiscriminately to all, without reference to relative needs or efforts made, but should bear some definite relation to the needs of a community and to the efforts which it makes to provide good schools and to secure the attendance of children at them. The adoption of these principles would involve a reshaping of the apportionment system of most of the states of the Union, and would involve a change in the attitude of the state toward its educational system. The state would then become an active and positive force working toward the improvement of educational conditions throughout the state, and the resulting progress would be correspondingly rapid.

With the strong demand everywhere manifest for an improvement in educational conditions and in the teachers' annual salaries, the time is opportune, in many states, for a reopening of the question of providing adequate school revenue and for the revision of the general apportionment plan. The author would be glad if the principles laid down in the following pages should prove of service in formulating future legislation on the subject.

<div align="right">ELLWOOD P. CUBBERLEY.</div>

New York, *April, 1905.*

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PART I

CHANGES; INEQUALITIES EXISTING; PROVISIONS FOR RELIEF

CHAPTER I

Introduction: The Problem Stated

THE first half century of our Republic, from an educational point of view, was largely given over to the establishment of the principle that "the whole state is interested in the education of the children of the state." In a number of states the question was settled by the voters at the polls. It required half a century of discussion to secure legislation establishing "the right of the state to tax the property of the state to educate the children of the state," and a number of court decisions to confirm the principle. The final establishment of this principle marks the general recognition of a public need of a broader and more generous education than could be given in the dame schools or the district schools supported by district taxation and tuition fees. The "charity-school" conception of public education, prevalent in many of the states in the early part of the century, had to be fought and eliminated as a thoroughly dangerous and undemocratic idea. The "rate-bill," once so common in American education, had to be abolished and general taxation substituted in its place. The campaign for its abolition involved a discussion of the whole principle of general taxation for public education, and was educative in a high degree. The foundation of a state school fund was laid early in many of the states, and later the question of levying a general state school tax was fought out in the legislature or at the polls. To-day we assume that a free "common school" education, at least, is the common birthright of every American child, and that this free general education shall be provided and maintained by the general taxation of all property, without reference to whether the owner of the property has chil-

dren to be educated. To this end we have extensive systems of public education; administrative officers; required courses of instruction; compulsory education, in theory at least; large permanent endowment funds for public education; various forms of taxation from permissive to mandatory; and various methods of distributing the income from taxation and from the endowment funds set aside for the maintenance of public schools.

Education has thus gradually become one of the greatest interests of the people of the United States. Whatever may be their imperfections, the different state school systems are believed to be essential to the best interests of our Republic and are supported willingly and sometimes even generously by the people of the different states. Every state has recognized public education as one of its most important functions; requirements as to the support and maintenance of a system of public education are to be found in the different state constitutions; a number of states set aside from one-fourth to one-third of the entire state income for the support of public schools; and the various "School Laws" which have been developed indicate the interest and the oversight of the state in the matter. Beginning often with merely local or individual permission, this has been changed, little by little, into definite requirements and obligations. All this is indicative of a fuller and fuller recognition on the part of the state that the state owes it to itself and to its children, not only to permit of the establishment of schools, but also to require them to be established,—even more, to require that these schools, when established, shall be taught by a qualified teacher for a certain minimum period of time each year, and taught under conditions and according to requirements which the state has from time to time seen fit to impose. While leaving the way open for all to go beyond these requirements the state must see that none fall below.

The requirements which the state may justly impose by law must of necessity vary in the different states of the Union. The amount of education which a state can afford is to a large degree proportioned to its per-capita wealth. What is good and desirable for the children of Illinois may be equally good and desirable for the children of Arkansas, but it may be impossible for the people of Arkansas, for the present at least, to provide quite so good or quite so extensive an education for their children. The same is true of California and Oregon, of Massachusetts and

Vermont, of Texas and Louisiana. Even within the state itself there will naturally be variations,—a large wealthy city can have more and better schools than can the cities of five thousand inhabitants throughout the state, and these in turn can have better schools than the rural districts in the same county.

These conditions are inevitable and must be considered by the state in formulating its demands and in apportioning its funds. Theoretically all the children of the state are equally important and are entitled to have the same advantages; practically this can never be quite true. The duty of the state is to secure for all as high a minimum of good instruction as is possible, but not to reduce all to this minimum; to equalize the advantages to all as nearly as can be done with the resources at hand; to place a premium on those local efforts which will enable communities to rise above the legal minimum as far as possible; and to encourage communities to extend their educational energies to new and desirable undertakings.

As fast as can be done the minimum requirements of the state should be increased, and this should be done by the state without reference to whether or not a portion of its communities will be unable, unaided, to meet the demands. If the state deems it desirable that all its children should have certain advantages it should require communities to furnish them. It is the interests of the state and of the children of the state which are to be considered, and if certain communities are not able to meet the new demands it then becomes the duty of the state to render assistance. By making greater demands than can be met the state places itself under obligations to help its poorer members to comply with demands which are for the general good but which are beyond the power of these poorer communities to meet. This is not only justice, but it is demanded by sound public policy.

In determining whether the requirements made by a state may be increased it is customary to determine whether or not the local or the general tax rate for education can be increased so as to produce more money for public education. Such an increase may be desirable in any case. A far more fundamental question, however, is whether or not the money now at hand for distribution is distributed in the best manner possible, and whether or not, by a change in the method of distribution, the burdens of support could not be greatly decreased and the minimum require-

ments at the same time be increased, and this without doing any real injustice to any one.

In examining this problem it will not be our purpose to trace the history of the formation of school funds or the levying of school taxes. Neither will it be our purpose to discuss the principles of taxation as applied to the levying of school taxes, except as the principles involved are educational rather than economic. We shall assume that it is the settled purpose of the American people to support a system of public education at public expense. This purpose is of course more clearly conceived in some communities and states than in others, and the extent of the system supported, as well as the amount of support given and the method of giving it, vary widely in different states.

It will be our purpose, however, to examine the different type plans for support with reference to their educational value; to see in how far the various type plans for the distribution of school funds now in use in the different American states tend to equalize the burdens and the advantages of education throughout the state; and to set forth clearly certain fundamental principles which should be kept in mind in arranging or in revising any plan for the distribution of the income from permanent funds or general taxation for education.

While the different forms of taxation for education must of necessity be considered, our primary concern will be rather with the methods of distribution. An equal per-capita distribution of funds, as at present required by so many of our state constitutions and state laws, is not necessarily an equitable distribution, and we wish to show that a political or taxing unit should so use whatever school funds it may have for distribution as to equalize, as nearly as is practicable, the common educational advantages to all, and to give an incentive toward and to place a premium on the development by communities of new and desirable additional school advantages.

After indicating the changes in economic conditions and in education which have taken place and the efforts made by the states to aid communities by endowment funds and by general taxation for education, we shall pass to a consideration of the latter aspect of the problem, with a view to establishing certain principles which should control in the distribution of such aid. In doing so we shall hope to show that in a majority of the states

of the Union the methods in use for distributing state funds for schools are not based on the best principles, and do not afford the relief which should be given; and, further, that the adoption of a better method of distribution would enable many states, with no material increase in the funds at their disposal, to relieve the burdens of those communities least able to bear them and to increase materially the length of school term, and to do this without unduly increasing the burden of local support on any community.

In considering this problem we shall proceed in the following order:

We shall first illustrate the changes which have taken place and are still taking place in the distribution of wealth and school population, using groups of towns in the state of Massachusetts for this purpose, and then illustrate the existing inequalities in taxing power for education by examining representative groups in a number of different states. In doing this we shall inquire in how far it is possible to support schools wholly by local taxation.

We shall next consider the permanent endowment funds for public education which have been established in the various states, to see in how far these may be depended on for aid in equalizing the burdens and the advantages of education, and then pass to a consideration of the various forms of taxation, other than local, which the different states have instituted to supply the means for assisting communities to support the system of schools which the state requires to be maintained.

Permanent endowment funds and general taxation for education require a system of distribution, worked out on some just basis, which will enable the state to attain the end for which these funds and taxes exist. Various plans of distribution are in use in the different states, the aim of all of which is to equalize, in some degree, the burdens and the advantages of education. Some of these plans have been much more carefully worked out to accomplish this purpose than others, and some are far more just in their results than others. We shall accordingly examine the various plans which may be used, singly or combined, to accomplish these ends.

This will involve a discussion of the theory underlying the distribution of any form of general aid as well as the various type plans of distribution, and we shall try to determine in how far these type plans are justifiable on educational grounds, and what

better plan or combination of plans seems desirable. We shall maintain that a state should not occupy merely a negative position, but should become an active agent for the improvement of educational conditions throughout the state. To do this the state should distribute whatever aid it has, be the amount large or small, in such a manner as to encourage extra efforts on the part of the local communities and to place a premium on the efforts which communities make to help themselves. We shall next describe some of the new and desirable advantages of education which the state might well encourage communities to provide for their children, such as secondary education, manual training, kindergartens, evening schools, and special-class schools, and show how grants for these may all be included in the general apportionment plan without the necessity of special legislation or the grant of a special subsidy for each.

CHAPTER II

CHANGES IN POPULATION, WEALTH, AND EDUCATION

A hundred years ago what little wealth there was in this country was comparatively evenly distributed. This condition continued until well toward the middle of the nineteenth century. The country was engaged chiefly in agricultural pursuits. The people lived almost wholly on farms or in small villages. Wealth, besides being somewhat evenly distributed, existed nowhere in large amounts. The common industries of the time were carried on in the small village or on the farm. The business of the time was carried on in part by traveling tradesmen and in part by small storekeepers in the villages or at the country cross-roads. Means of communication were few and difficult. Railroads had not been built. Large industries had not been developed and centralized. Inventions had not multiplied the necessities as well as the conveniences of life. Labor-saving devices had not removed the industries from the home and the small village shop to the city manufactory. There were few cities, with their aggregation of people [1] and wealth.

The past fifty years, however, have witnessed great changes in the method of living of our people and the growth of great inequalities in the distribution of the population and the wealth of the country.[2] Railroads have been extended in all directions, and where the railroads have gone inequalities have generally

[1] Percentage of the total population of the United States in cities of 8,000 and over, by decades.

1790 .... 3.35%	1830 .... 6.72%	1870 .... 20.93%
1800 .... 3.97%	1840 .... 8.52%	1880 .... 22.57%
1810 .... 4.93%	1850 .... 13.49%	1890 .... 29.20%
1820 .... 4.93%	1860 .... 16.13%	1900 .... 33.10%

Report of the 12th Census, 1900, Vol. I, *Population*, Introd.

[2] The illustrations given in the next chapter for the Massachusetts counties and towns serve as good illustrations of this, as do those given in foot-note number 6, further on in this chapter.

arisen, due to the increase in value of the property near the lines of transportation and the impetus given to the development of towns and cities along the line of the road. The junction of two lines of railroad has often been an additional impetus to the development of a city, and the convergence or divergence of a number of lines of railway from a single point has given rise to a trade or manufacturing center.[3] At such points wealth has accumulated with great rapidity. With the great increase in the quantity and in the application of scientific knowledge there has come to be a great utilization of the natural resources of the country, such as coal, iron, lead, oil, copper, and building stones,[4] which has tended to emphasize the growing inequalities by enormously increasing the value of the regions producing these articles. Climatic or geographic conditions have also made certain places very desirable for residence purposes, often resulting in enormous increases in valuation in these places.[5] Inventions have perfected manufacturing to such an extent that the industries once practiced in the villages and homes all over the country are now centralized in large manufactures, located where power is cheap, labor plentiful, and means of transportation easy. The department store in the city has taken the place, likewise, of hundreds of small village stores. With the development of trade and industry the agricultural pursuits of our ancestors have yielded place to other means of earning a livelihood, and the farm has been depopulated while the city has become overcrowded. Population and wealth are no longer diffused with comparative equality

[3] Chicago or St. Louis are good examples of this on a large scale, and Indianapolis on a somewhat smaller scale.

[4] The quarries of Vermont serve as a good example. The value of the stone removed and sold in one year was about $7,000,000, or about $\frac{1}{24}$ of the total valuation of the property in the state. *Rept. State Geologist of Vermont*, 1904.

The output of the bituminous coal mines of Indiana in 1901 was worth $4,337,600. The oolitic limestone quarried was worth an average of about $85,000 a carload, and the average assessed value of the rough quarry land was $392 per acre, or about ten times the average assessed value of other lands. *9th Bien. Rept. Ind. Bu. of Statistics*, 1902.

[5] For example, Bar Harbor in Maine, Nahant in Massachusetts, Newport in Rhode Island, and the various winter resorts of Florida and California.

throughout the state or country, but are, to a large degree, concentrated at a number of centers of trade and industry.[6]

Whether or not these changes in living and in the distribution of population and wealth have been advantageous or otherwise it is not our province to discuss, nor would the conclusion arrived at make any particular difference. Our purpose is to point out the effect of the growth of these inequalities upon the matter of the proper distribution of the income from school funds and the results of taxation for education. As it is to-day, some communities have come to have a far greater per-capita wealth than have others; some communities are constantly increasing their per-capita wealth, while in other communities there is an actual or a relative decrease;[7] and in many states an increasing impoverishment of certain communities is taking place while other communities are rapidly increasing their percapita wealth.[8]

[6] A few examples will serve to illustrate this point. The statistics as to comparative population are calculated for the year 1900 from the data given in Vol. 1, *Population,* of the *Rept. of the 12th U. S. Census.* The statistics as to comparative valuations were obtained from the assessment figures given in the reports of the State Auditor, Tax Commission, Board of Equalization, or Superintendant of Public Instruction for the various states, and are for the year 1900 or 1901, as was available.

Boston, not including unannexed adjoining cities, contained 20% of the population of the state of Massachusetts and 39% of the total property valuation of the state: New Haven, 11.9% of the population and 20.4% of the wealth of the state of Connecticut: Chicago, 35% of the population and 41% of the wealth of the state of Illinois: St. Louis 18% of the population and 32% of the wealth of the state of Missouri: Indianapolis, 6.7% of the population and 11.4% of the wealth of the state of Indiana: Milwaukee, 14% of the population and 23% of the wealth of the state of Wisconsin: and San Francisco, not including a number of adjoining residence cities, contained 23% of the population and 33% of the wealth of the state of California.

[7] The counties of Nantucket and Barnstable in Massachusetts, for example, have more than trebled their wealth per school census child in the past thirty years, while the counties of Dukes and Norfolk have doubled theirs. Suffolk county, on the other hand, has lost. (Calculated from the "Abstracts of Mass. School Returns" in *Repts. Mass. Bd. Educ.* for 1871 and 1901). This is well shown by Table I, Ch. III, comparing the changes of the different counties between 1871 and 1900.

This could be further illustrated by statistical comparisons from almost every state in the Union.

[8] This can be abundantly illustrated by statistics. A few examples, taken at random, from the towns of Massachusetts, will suffice to illustrate

While the population and the wealth of our country have under-gone many fluctuations in the past half century, the school systems of the country, on the other hand, have had a much more constant history. Disregarding temporary administrative and legislative backward tendencies, and the set-back given education in the South by the ravages of the Civil War, the schools, rural, village, and city, have been going forward steadily, and each decade has witnessed new demands made by the public and the state upon teachers, pupils, and communities. Complaints because of insufficiency have been met by new demands in instruction and the appropriation of larger sums of money with which to work. Schools have been greatly increased in number; school-houses and appliances have been greatly improved; the material equipment for the teaching of the subjects of the course of study has been multiplied; new subjects of instruction have been introduced; the school year has been lengthened,[9] and the number of years of schooling given have been increased:[9] a better edu-

the impoverishment of communities. The calculations have been made from statistical data contained in the " Abstracts of the Mass. School Returns " for the dates mentioned (*35th and 65th An. Repts. Mass. Bd. of Educ.*) and the supplemental data given on pp. 120-121 of the 35th Rept.

The town of Clarksburg, Berkshire Co., Mass., between 1871 and 1900, increased in total population from 686 to 943; in school census population, five to fifteen years of age, from 141 to 262; and in number of schools maintained from three to five, and in 1901 a sixth teacher had to be added. The taxable valuation of the town decreased in the meantime from $244,857 to $239,755.

Kingston, Plymouth Co., Mass., is another example of the same tendency. Comparing the returns for 1871 and 1900 we find that the total population increased from 1604 to 1955; the school census population from 289 to 348; the valuation increased only from $1,334,298 to $1,381,970; while the number of schools increased from eight to twelve. The average taxable valuation has hence decreased from $4,614 to $3,971 per census child and from $166,700 to $115,164 per school maintained.

. Hull, another town in the same county, illustrates the opposite tendency. In the same period the total population of the town increased from 261 to 1,703; the school census population from 41 to 163; the total valuation from $286,087 to $4,118,111; and the number of schools from 1 to 6. Calculating, we find the valuation per census child has increased from $6,977 to $25,264, and per school maintained from $286,087 to $686,362.

The same increase or decrease could be shown among the towns or counties or townships of almost any state for which we have comparative statistics covering any period of sufficient length.

[9] The " Commissioner's Introductory Statement, with Statistics of State

cated and a better trained teacher has been secured; [10] the salaries paid have been increased, actually if not relatively; [10] supervision has been instituted; the " rate-bill " and the " fuel tax " have been removed, supplies furnished, and in many cases text books have been furnished free; and the advantages of higher education have been provided for the boys and girls of all cities and of many of our rural communities. The result has been a great increase in the per-capita cost of education,[9] in which the rural communities have shared as well as the cities, the poorer communities as well as the richer ones. The state has been insistent in its demands, and the burden of support is to-day greater than many communities can meet; with the maximum taxation allowed by law they are unable to meet the minimum demands of the state.

Illustrations to prove this could be found in the State School Reports of most of the states of the Union, as almost every state has the same problem to contend with. A few examples, selected at random, will be given to illustrate the point.

In Indiana, in 1901-2, the state paid about one-fourth of the expenses of the school system by state taxation and the income from permanent funds, distributing the state funds on the basis of census children. The state requires a minimum of 120 days of school per year,[11] and the local township tax was then limited to 35c. on the $100.[12] For this same year, 1901-02, the average length of term in the cities was 179 days, in the towns 153 days, and in the townships 126 days. The total average of all schools in 7 of the counties was less than the amount required by law for each school, and the average of the township schools in 21 counties was below the legal limit, the average in 9 counties being less than 100 days, and in 5 counties less than 90 days. On the other hand the township schools alone in 7 counties, after ex-

School Systems," in Vol. I of the *Rept. U. S. Com. Educ.*, for each year gives ample statistical data on this point for each state and group of states.

[10] Most of the reports of the Superintendents of Public Instruction for the different states contain statistical tables showing the average salaries paid men and women and the percentage of trained teachers employed in the state each year.

[11] *Ind. Rev. Stat., 1901*, Sec. 5920 *a.*

[12] By an act approved March 9, 1903 (*Acts of 1903*, p. 409), the local tax limit was raised to 50c. on the $100.

cluding all town and city schools, exceeded an average of 150 days, and in 3 counties exceeded an average of 160 days.[18]

The following quotations from the reports of the County Superintendents of Indiana for the same year, contained in the Report of the State Superintendent, further illustrate the point:

DUBOIS COUNTY: "Some school corporations, even with a levy at the limit of the law, cannot reach a term of six months." P. 323.

JACKSON COUNTY: "One of the greatest needs of Jackson County is sufficient funds to run a six months' term in all the townships. One of our townships, with a levy up to the limit, will not have more than four months school this year." P. 341.

LAWRENCE COUNTY: "Under our present means of raising revenue it is almost impossible for some of the corporations to maintain a six months' term of school. But we desire and need a much longer school term, and it seems but fair that the State at large should come to the aid of those who are unable to serve themselves." P. 354.

ORANGE COUNTY: "One-half of the townships, thus far, have not been able to conform to the six months' school law, as the property valuation is so low that even a 35c. levy does not give them money enough. Some townships will run to ninety or one hundred days only, under the present conditions." P. 367.

PERRY COUNTY: "One township was compelled to close last year with a term of sixty days. Here is the problem that confronts the trustee: Leopold Township has eight schools. The daily expense for tuition is about $18. On an enumeration of 326 it will draw less than $1000 from the State school fund. The law permits a local levy of 35c., which on $99,000 taxables will produce less than $350. This exhausts the regular source of revenue, and our schools must close with seventy days. This same difficulty is present in every township. We cannot consolidate because we have no roads. We have no high schools because we have no money." Pp. 371-2.

In Nebraska three months is the minimum term allowed by law for districts of less than 20 census children, six months for districts of 20 to 75 census children, and nine months for all districts of over 75 census children.[14] According to the Report of the State Superintendent of Public Instruction for 1901-2, three hundred districts maintained less than a three months' term, and eight hundred and five more than three but less than six. "Under our existing revenue laws 25 mills, the present limit, is entirely

[18] Statistics gathered from the *Rept. of the Supt. Publ. Instr., Indiana, 1902,* pp. 630, 631.

[14] *School Laws of Nebraska,* Subdivision II, Sec. 14.

inadequate for the needs of hundreds of districts in Nebraska that are voting this limit, and maintaining from three to six months of school and paying their teachers from $20 to $30 per month." [15]

In Missouri the law provides " that no district, city or town, that shall have failed to afford the children thereof the privileges of a free school for at least six months during the year previous * *, provided a tax of 40c. on the $100 assessed valuation, together with the public funds (State and County) will maintain the same, shall be entitled to any proportion of the public school fund for that year.[16] Notwithstanding this legal requirement, the following has been the result for the past three years.[17]

Year.	Av. length term.	Under 4 Mo.	4-6 Mos.	6-8 Mos.	8 Mos. or more.
1902	143 days.	121	1045	6728	2698
1903	144 "	142	1126	5787	2688
1904	148 "	146	1073	5860	2786

In Massachusetts, seven towns in 1902-3 failed to meet the eight months required standard. (See foot-note 19, Chapter III.)

The state, on the contrary, must increase rather than decrease its minimum demands. In many communities the educational conditions are far below what they ought to be to insure the prevalence of ordinary intelligence throughout the state or to prepare the children of the state to meet the demands of the future. The state cannot decrease its demands, and one of the chief problems before the state has been and still is how to continue increasing the demands for more and better education without doing serious injury to the poorer communities by too greatly increasing the burden of local taxation. In other words, the state must face the problem of how to more nearly equalize the opportunities of a good education to the children of the whole state by helping the poorer communities to do what they ought to do but cannot possibly do alone.

[15] State Superintendent of Public Instruction of Nebraska, in *1902 Report*, Vol. II, p. 1000.

[16] *Mo. Rev. Stat., 1899*, Chap. 154, Art. I, Sec. 9840.

[17] From the *An. Repts. State Supt. Pub. Instr. for Mo.*, 1902, 1903, 1904.

CHAPTER III

ILLUSTRATIONS OF EXISTING INEQUALITIES: MASSACHUSETTS

MR. JOSEPH WHITE, Secretary of the Massachusetts Board of Education, called attention in 1871 to the changed conditions in Massachusetts and to the inequalities then existing,[1] and urged the levying of a state one-half mill tax to be used to partially equalize the existing burdens for the support of public schools. In this report Mr. White compared the valuations of the fourteen counties of the state with the number of school census children, 5 to 15 years of age, and showed that while the state average for 1871 was $5,381.33 per child, the average of the counties varied from $2,393.82 to $12,623.72 per child.

Comparing the figures calculated by Mr. White with figures calculated in a similar manner from the statistical tables in the "Abstract of School Returns" for the year 1901[2] we find that the changes in the intervening thirty years have been as follows:

TABLE No. 1.

AVERAGE VALUATION OF MASSACHUSETTS COUNTIES, PER CENSUS CHILD 5-15 YEARS OF AGE, WITH THE RATE OF INCREASE OR DECREASE.

County.	Census, 5-15 years.		Av. Valuation per census child.		Rate of change.	
	1871	1901	1871	1901	In census.	In wealth per child.
Barnstable	6,669	4,199	$2,075	$5,956	—37%	+186%
Berkshire........	13,085	17,661	2,961	3,489	+35%	+18%
Bristol..........	19,979	45,971	4,317	4,173	+129%	—03%
Dukes...........	762	584	3,060	7,363	—22%	+140%
Essex...........	38,639	59,261	3,650	4,651	+53%	+29%
Franklin.........	6,068	7,187	2,445	3,222	+18%	+32%
Hampden........	13,787	32,121	4,015	4,707	+135%	+17%
Hampshire......	8,665	10,312	2,943	3,294	+19%	+12%
Middlesex.......	52,211	96,305	4,818	5,486	+84%	+13%
Nantucket.......	665	391	2,782	8,685	—70%	+215%
Norfolk.........	18,045	26,479	4,642	7,974	+47%	+72%
Plymouth	12,846	18,619	2,394	4,453	+45%	+86%
Suffolk..........	49,722	103,062	12,624	11,584	+107%	—09%
Worcester.......	37,116	60,959	3,284	4,068	+64%	+24%
The State.......	278,249	483,103	5,381	6,279	+73%	+16%

[1] 35th An. Rept. Bd. Educ., Mass., for the year 1871, pp. 117-132, with statistical tables, pp. 154-172.

[2] 66th An. Rept. Bd. Educ., Mass., for 1901-2.

This table shows in a striking manner the growth of inequalities in the distribution of both school population and wealth. The county preserving the most nearly equal development was Hampshire, while Bristol, Dukes, Nantucket, and Suffolk show the growth of marked inequalities.

Mr. White also made an analysis [3] of the increase or decrease in valuation, from 1865 to 1871, of the thirty-seven towns in the state which, in 1871, had a total valuation of less than $300,000. He showed that in the six years from 1865 to 1871 fifteen towns had increased in valuation while twenty-two towns had decreased, the net result of the thirty-seven being an increase of less than one-half of one per cent. From a consideration of these towns, and from a further consideration of the statistical tables presented in the "Abstract of School Returns" for that year Mr. White laid down (p. 122) " a general law of growth " that " the rate of increase for the period named is in proportion to the comparative valuation at the beginning of it."

Mr. White also arranged all the towns of the state in a series of tables, showing the number of mills of tax appropriated to the support of public schools, the amount per census child, and the length of school term for each town. In looking over this table the inequalities in the rate of taxation and the length of term are quite marked. The state average in tax shown is 2.19 mills, and the average school term is shown to be 8 months and 9 days. The highest rate, of 5.96 mills, with a school term of 7 months and 13 days, is found in the town of Wellfleet, and the lowest rate, of .28 mills, with a school term of 11 months and 5 days, is found in the town of Nahant.

Tabulating the towns, Mr. White showed that:

In   7 towns [4] the rate was over 5.00 mills.
In 28 towns [5] the rate was less than 5.00 mills but over 4.00 mills.
In 114 towns   the rate was less than 4.00 mills but over 3.00 mills.

[3] *35th An. Rept. Bd. Educ., Mass.*, for 1871.

[4] Four of these had a valuation of less than $275,000 and a term of from 6 to 6½ months.

[5] Six of these had a valuation of less than $210,000, and the term of four was 6 months, of one 6 months and 3 days, and of the other 7 months.

In 145 towns [6] the rate was less than 3.00 mills but over 2.00 mills.
In 34 towns [7] the rate was less than 2.00 mills but over 1.00 mill.
In   2 towns   the rate was less than 1.00 mill.

In length of school term, six months at that time being required by law, the tabulation was as follows:

18 towns had a term of less than 6 months.
29 towns had a term of 6 months.
73 towns had a term of over 6 but not over 7 months.
67 towns had a term of over 7 but not over 8 months.
60 towns had a term of over 8 but not over 9 months.
44 towns had a term of over 9 but not over 10 months.
39 towns [7] had a term of over 10 months.

From a study of the tables presented, Mr. White declared " that the amount appropriated to each pupil and the average length of the schools are the lowest in those towns where the rate of taxation is the highest; and the burden, measured in this way, of maintaining these schools in a number of the rural towns is three-fold greater than in many of the wealthy cities and large towns." (p. 124.)   Concluding, Mr. White said that " these burdens, borne not for the good of individuals or of the towns alone, but chiefly in furtherance of the common weal, should be in some good measure equalized."

Since 1871 the cities have increased the quantity and kinds of the education given; have lost (1874) their State aid; and the burdens of the smaller towns have been equalized in part, so that a comparison of the same towns is no longer possible, and Mr. White's second " general law " no longer holds.   Still, notwithstanding the great development of education in the cities, Boston, including Charleston, had in 1901-02 a school tax rate of but 2.39 mills, Brookline 1.91 mills, New Bedford 3.46 mills, Fall River 3.89 mills, and the remainder of the eleven cities mentioned in the foot-note are all less than 5.00 mills, Worcester, with 4.61 mills being the highest. [8]

[6] Included Cambridge, New Bedford, Worcester, Charleston, Salem, Springfield, and Lynn.

[7] Included Boston, Fall River, and Brookline.

These two groups (6 and 7) represent every city in the State in 1871 of over $20,000,000 valuation except Lowell, whose rate was 3.15 mills.   None of these cities had less than a 10 months' term, while five had 10½ months and three had 10¾ months.

[8] *66th An. Rept. Bd. Educ., Mass.*, 1901-02.   Graduated Valuation Table, No. II.   See also Table No. 5, further on in this chapter.

Taking the same thirty-seven towns studied by Mr. White[9] and comparing their valuations for 1871 with the valuations[10] for 1900 we find that in the intervening period twenty-six towns have decreased in valuation while eleven towns have increased, the amount of decrease of the twenty-six being more than half the total valuation of the thirty-seven towns in 1871. Mr. White's " general law of growth " holds true generally, though not in all cases, as a few of the towns which had increased in valuation in the preceding period have decreased since 1871, and *vice versa.*

Any reasoning as to educational conditions and possibilities, however, which is based on mere changes in valuations would be unsound. The loss in school census and in number of schools maintained might perhaps be more rapid than the loss in valuation, resulting in a per capita or a per school increase in property taxable for school maintenance, and it is necessary to compare educational needs and demands as well as property values.[11]

[9] *35th An. Rept. Bd. Educ., Mass.,* for 1871.

[10] *65th An. Rept. Bd. Educ., Mass.,* for 1900-01.

[11] The town of Windsor, in Berkshire County, illustrates this point. Comparing the statistical returns for the years 1871 and 1900 we find that the total population decreased from 686 to 507, its school census population decreased from 144 to 80, the total valuation decreased from $297,053 to $195,276, and the number of schools maintained decreased from 9 to 7. Figured out on a per capita of school census basis the valuation of the town really increased in the twenty-nine years from $20.63 to $24.40 per census child, but, figured out on the basis of the number of schools the town maintained, the taxable valuation per school (teacher employed), which is the real test, had decreased from $33,006 to $27,896 per school maintained.

The town of Montgomery, in Hampden County, is another example. Comparing the statistics for the year 1871 with 1900 we find that the total population decreased from 318 to 273; the school census population, 5 to 15 years of age, from 69 to 58, and the valuation from $152,800 to $140,598, while the average valuation per census child increased from $22.14 to $24.24. But the number of schools maintained, 5, is the same in 1901 as in 1871, and hence the assessable valuation per school maintained has decreased from $30,560 to $28,120.

The town of Prescott, in Hampshire County, shows the same result for the same period. The total population decreased from 541 to 380, the school population from 92 to 63, the valuation from $213,798 to $164,223, while the average valuation per census child increased from $23.24 to $26.07. But the

To make such a comparison we must use the school census, the school enrollment or attendance, or the number of schools (teachers; departments) maintained. School census is not a safe basis, because the number of children who might attend each of the town's schools might decrease a half or more without the town being able to discontinue the maintenance of any of its schools. Enrollment and average daily attendance are open to the same objections for such a comparison. The number of teachers employed is the best basis of comparison, when dealing with small towns, as the chief cost of maintaining schools is the amount paid for the salary of the teacher.

Taking the same thirty-seven poor towns studied by Mr. White and calculating the changes in thirty years in valuations and number of teachers employed, calculating the average taxable valuation per school (department; teacher) maintained by the town in 1900-01, and the rate of town tax in mills which would have been required to raise by local taxation the sum of $250 per teacher [12] employed, assuming no delinquent tax-payers, we get the following comparative table:

number of schools maintained decreased only from 6 to 5, giving a real decrease in valuation per school maintained from $35,663 to $32,844.

Hundreds of additional examples of this tendency might be given from the statistical data published by the various states.

[12] The sum of $250, assumed somewhat arbitrarily as a basis for tax-rate comparisons, is certainly a minimum amount on which a school can be managed for a year. While schools may be conducted for less, and in many states are conducted for less, they certainly ought not to be. This amount, $250, will be used as a basis for comparison throughout this and succeeding chapters, and will serve this purpose as well as any other amount. The tax-rate required to produce any larger amount can be found by a simple process of multiplication.

TABLE No. 2.

RELATIVE CHANGES IN VALUATIONS AND NUMBER OF SCHOOLS MAINTAINED IN
THIRTY-SEVEN MASSACHUSETTS TOWNS, 1871-1901.

(Calculated from the "Abstracts of School Returns" in the *35th* and *65th
An. Repts. Bd. Educ., Mass.* The valuations are those for 1871 and 1900,
while the number of schools maintained is taken for 1870-71 and 1900-01).

Town.	Change in Valuation.	Change in No. of Schools.	Taxable Valuation (1900) per School (*Tr.*) Maintained.[13]	Rate of tax for $250 per Teacher.
Mt. Washington	—5%	0%	$47,017	5.32 mills.
Monroe	+194%	+100%	36,744	7.00 "
Eastham	+70%	—25%	106,160	2.35 "
New Ashford	—51%	—50%	27,085	9.26 "
Peru	—40%	—50%	40,083	6.25 "
Gosnold	+46%	0%	230,678	1.09 "
Hawley	—15%	—33%	24,389	10.25 "
Rowe	—2%	—17%	35,122	7.11 "
Holland	—48%	—75%	78,383	3.20 "
Montgomery	—8%	0%	28,120	8.88 "
Goshen	—6%	—25%	45,266	5.53 "
Truro	+26%	—25%	57,130	4.35 "
Alford	—44%	0%	55,438	4.52 "
Clarksburg	—3%	+40%	47,951	5.21 "
Florida	—26%	—16%	30,232	8.27 "
Monterey	—20%	—37%	45,369	5.51 "
Savoy	—45%	—33%	26,185	9.54 "
Tyringham	—21%	—50%	73,906	3.40 "
Windsor	—34%	—22%	27,896	8.00 "
Chilmark	—25%	—33%	109,342	2.28 "
Heath	—39%	—16%	22,134	11.62 "
Leyden	—13%	0%	39,783	6.30 "
Schutesbury	—11%	—43%	44.509	5.63 "
Warwick	+51%	—50%	85,394	2.93 "
Wendell	+18%	—20%	59,946	4.16 "
Russell	+79%	0%	81,801	3.06 "
Tolland	—60%	—50%	45,932	5.40 "
Greenwich	—15%	—33%	62,990	3.97 "
Pelham	—10%	+20%	37,067	6.75 "
Prescott	—23%	—16%	32,845	7.62 "
Boxborough	—4%	0%	59,276	4.22 "
Dunstable	+3%	—60%	148,305	1.68 "
Hull	+1370%	+600%	686,362	.36 "
Plympton	+13%	—50%	110,362	2.27 "
Dana	+13%	—20%	61,104	4.09 "
Phillipston	—5%	—37%	91,670	2.73 "
Plainfield	—29%	—17%	36,108	6.93 "

[13] The addition of another teacher in 1901-02 made the following reduc-

The growth of inequalities, as shown by this table, is indeed interesting. An inspection of the first two columns of the table will show that seven towns increased their wealth and at the same time decreased the number of their schools,[14] thus making substantial gains, while two towns did the opposite; five towns decreased in wealth but with no reduction in the number of schools maintained, while two towns increased in wealth without increasing the number of schools; twelve towns were able to decrease the number of schools maintained faster than the wealth of the town decreased, thus making an actual gain, while in seven towns the wealth decreased faster than the number of schools. The most remarkable changes in the list were made by the towns of Monroe, Eastham, Warwick, Russell, and Hull.

No account is taken here of the increased cost of education in the intervening thirty years, which should not be neglected, because it has almost doubled. In 1870-71, the average taxation cost for the support alone of public schools for each child, 5 to 15 years of age, in the State of Massachusetts, was $11.76;[15] in 1900-01, it was $22.69.[16] This is an increase of 93%. To compare the rate of tax in mills required in 1871 with that required in 1900 we should calculate the rate in mills necessary to produce $130 per teacher on the valuation of 1871 and put it by the side of the rate necessary to produce $250 per teacher in 1900. This will give a comparison of what was demanded for 1871 with what was demanded for 1900, based on the average cost of maintaining equivalent schools. Making such calculations for the first six towns of Table No. 2 we get the following results:

tions: Peru, to $28,625; Clarksburg, to $40,403; Wendell, to $47,045; and Tolland, to $29,661. This would cause a corresponding change in the rate of tax required to produce $250.

[14] By schools here, as elsewhere throughout these chapters, we mean the number of teachers (departments) actually employed in instruction, and not the number of school buildings, which would have no meaning.

[15] *35th An. Rept. Bd. Educ., Mass.,* for the year 1871, p. 95. The income from surplus revenues and other funds, equal to 2.3 cents, has been deducted from the amount given for 1870-71 to make the comparison more exact.

[16] *65th An. Rept. Bd. Educ., Mass.,* for the year 1900-01.

	Rate of tax required to produce, per teacher:	
Town.	$130 in 1871.	$250 in 1900.
Mt. Washington	2.61 mills.	5.32 mills.
Monroe	5.18 "	7.00 "
Eastham	2.76 "	2.35 "
New Ashford	2.26 "	9.26 "
Peru	3.66 "	6.26 "
Gosnold	.77 "	1.09 "

The third column of Table No. 2 shows the great extremes at present existing in the taxable valuation per school maintained, ranging from $22,134 per school in the town of Heath to $686,362 per school in the town of Hull. The fourth column shows the relative ability of the towns to support a school costing $250 wholly by local taxation.

In 1901 the Secretary of the Massachusetts State Board of Education, in discussing the distribution of state aid to the towns of Massachusetts, presented detailed statistical tables [17] to show the relative condition of the cities and towns at that time, giving valuation, average membership in the schools, valuation per pupil in average membership, tax rate, and cost per capita for each of the three hundred fifty-five cities and towns of the state. Selecting from the table the four highest and the four lowest towns, and comparing these with the average for Boston and the State of Massachusetts, we get the following table:

TABLE No. 3.

A COMPARISON OF THE FOUR MASSACHUSETTS TOWNS HAVING THE HIGHEST AND THE LOWEST AVERAGE TAXABLE VALUATION PER PUPIL IN AVERAGE MEMBERSHIP, WITH THE CITY OF BOSTON AND WITH THE AVERAGE FOR THE STATE OF MASSACHUSETTS.

Town or city.	Valuation per pupil in Av. Membership.	Local tax rate for schools.	Per cent of all taxes for schools.	Cost per pupil in Av. Memb. for maintenance.
The four highest—				
Nahant	$42,921	1.18 mills.	15%	$50.77
Hull	28,918	1.36 "	08%	39.37
Manchester	23,816	1.29 "	16%	30.94
Brookline	23,653	1.74 "	17%	41.29
The four lowest—				
Gay Head	728	4.40 "	44%	3.21
Clarksburg	1,432	5.65 "	28%	8.09
East Longmeadow	1,643	7.48 "	48%	12.30
Heath	1,683	6.54 "	32%	11.01
Average for the State.	7,200	3.62 "	23%	26.06
City of Boston	14,151	2.32 "	18%	32.86

[17] *64th An. Rept. Bd. Educ., Mass.*, 1899-1900, pp. 267-298.

A compilation of the data given in this same Report [18] for all the cities and towns of the state, selected on the basis of taxable valuation per child in average membership in the schools for the preceding year, gives the following:

<div align="center">TABLE No. 4.</div>

<div align="center">PROPERTY VALUATION PER PUPIL IN AVERAGE MEMBERSHIP OF THE MASSACHUSETTS TOWNS AND CITIES FOR 1899.</div>

Valuation.	No. of Towns.	Valuation.	No. of Towns.
Less than $1,000	1	$10,000 to $11,000	1
$1,000 to $2,000	12	$11,000 to $12,000	4
$2,000 to $3,000	64	$12,000 to $13,000	1
$3,000 to $4,000	102	$13,000 to $14,000	1
$4,000 to $5,000	68	$14,000 to $15,000	2
$5,000 to $6,000	40	$17,000 to $18,000	4
$6,000 to $7,000	27	$23,000 to $24,000	2
$7,000 to $8,000	10	$28,000 to $29,000	1
$8,000 to $9,000	9	$42,000 to $43,000	1
$9,000 to $10,000	5		

An inspection of the tabulation given in this Report [18] shows that no town or city with a total valuation of more than $1,000,000 had a valuation per child in average membership in the schools of less than $2,000; no town of over $10,000,000 had a valuation of less than $3,000; and no town of over $150,000,000 had a valuation of less than $5,000 per child in average membership. On the contrary, only one town with a total valuation of less than $500,000 had a pupil valuation of over $7,000; no town of less than $2,000,000 total valuation had a pupil valuation of over $12,000. Twelve towns above $3,000,000 total valuation had a pupil valuation of over $12,000. In general, the wealthier the town the larger its per capita wealth for each pupil in average membership in the schools.

The presence of great inequalities is shown also by selecting the seven towns and cities which for 1901-02 levied the highest rate of local tax, the seven which levied the lowest rate, and the seven largest cities of the state, and then comparing these twenty-one cities and towns with reference to the rate of tax levied and the amount produced per pupil. The following table shows such a comparison.

[18] *64th An. Rept. Bd. Educ., Mass.*, 1899-1900, pp. 272-296.

TABLE No. 5.

(Data selected from Graduated Tables I and II in *66th An. Rept. Bd.
Educ., Mass.,* 1901-02, in "Abstract of School Returns" for the year.)

City or Town.*	Rank in amount levied.	Rate of local tax levied.	Aml. produced per pupil in Av. Memb. in school.	Rank in amount produced
Seven levying highest rate—				
West Boylston............	1	9.20 mills.	$22.33	131
Warren..................	2	8.79 "	19.17	216
East Longmeadow........	3	8.56 "	14.17	303
Huntington..............	4	8.50 *	15.88	277
Groveland	5	8.29 "	18.92	221
Dighton.................	6	8.18 "	24.11	95
Abington................	7	7.94 "	25.44	75
Seven largest cities..				
Boston..................	333	2.39 "	33.86	15
Worcester...............	192	4.61 "	28.45	40
Fall River..............	260	3.89 "	22.03	137
Lowell..................	194	4.58 "	30.73	21
Cambridge..............	219	4.33 "	29.51	28
Lynn...................	196	4.56 "	28.65	38
New Bedford............	287	3.46 "	26.99	42
Seven levying lowest rate—				
Brookline...............	346	1.91 "	51.68	3
Hull...................	347	1.73 "	45.75	7
Tolland	348	1.61 "	4.00	350
Goshen.................	349	1.50 "	4.43	351
Manchester.............	350	1.37 "	33.72	16
Chilmark...............	351	1.31 "	9.37	343
Nahant.................	352	1.10 "	52.10	2
Gosnold................	353	.85 "	10.53	336

* The poorer towns received state aid in addition, which the cities did not.

The various tables which we have so far presented show how
easy it is for the wealthier towns and cities of Massachusetts to
maintain their extensive school systems, and what a burden it
would be to many of the poorer towns to comply, unaided, with
the requirements of the laws of the state relating to the main-
tenance of schools.[19]   Even the little state aid that is received

[19] In 1901-02 seven towns failed to maintain an 8-months school. The
lowest local tax rate in any of these towns was 3.62 mills and the high-
est 5.58 mills. In addition each received state aid or aid from other
sources in approximately the following proportions to the entire expense
for schools: $\frac{3}{5}, \frac{3}{5}, \frac{2}{5}, \frac{2}{9}, \frac{3}{6}, \frac{1}{2}, \frac{5}{8}$.   *66th An. Rept. Bd. Educ., Mass.,*
1902-03, p. 80, and statistical tables.

by the poorer towns must be very welcome. It can easily be
seen from the tables that the maintenance of schools by local
taxation even in as wealthy and well settled a state as Massachu-
setts,[20] is only possible by often requiring very large sacrifices
from those who have little and very small sacrifices from those
who have much, while, as Mr. White so well said over thirty years
ago, the carrying of these burdens is "not for the good of in-
dividuals or of the towns alone, but chiefly in furtherance of the
common weal, and should be in some good measure equalized."

We have dealt, at some length, with the growth and existence
of inequalities in Massachusetts, and for many reasons. Massa-
chusetts is, after Rhode Island, the most densely populated state
in the Union, and this makes possible the maintenance of
schools, of the same kind, at a much smaller average per capita
cost than is possible in the more sparsely settled states of the
Mississippi Valley or the West. Massachusetts has a very large
per capita wealth and the schools are supported largely by local
taxation (over 97% of the revenue comes from this source), and
the town unit, corresponding in a certain sense to a western
township, offers a unit small enough for the study of local in-
equalities and local taxing power. Another good reason for
using the State of Massachusetts is that the "Abstract of School
Returns," published by the State Board of Education, is among
the best printed by any state, and contains detailed information
of the kind needed for such a study.

The demands made by the state upon all the schools, too, are
more nearly uniform in Massachusetts than one finds elsewhere.
All towns are required by law to maintain their schools eight
months each year;[21] every school in the state is required by law
to be under the supervision of a superintendent of schools, paid
by the towns or cities;[22] every town of five hundred families
must maintain a high school[23] and all other towns must pay high

[20] After Rhode Island the most densely populated state in the Union.
Average density of population (12th census, 1900), 348.9 people to the
square mile.

[21] *Rev. Laws of 1901*, Chap. 42, Sec. 1. Towns with a valuation of less
than $200,000 may be excused with seven months.

[22] *Rev. Laws of 1901*, Chap. 42, Sec. 40.

[23] *Ibid.*, Chap. 42, Sec. 2.

school tuition for their pupils; [24] and all towns are required to " raise by taxation money necessary for the support of schools," [25] with no legal limit on the amount that may be raised, and under penalty for failure to do so, of forfeiting " an amount equal to twice the highest sum ever before voted for the support of schools therein." [26] The fact that Massachusetts can make and enforce such demands upon all, demands which most states would find themselves unable to enact into law or to enforce if so enacted, gives one the right to assume that the inequalities in taxing power existing in Massachusetts are certainly not greater than the inequalities met with elsewhere, while it is probable that they are less marked in Massachusetts than in most of the central and western states.

We shall next examine selected groups in a few other states, the State School Reports of which give sufficient statistical data, with a view to ascertaining the nature of the inequalities which exist elsewhere.

[24] *Ibid.*, Chap. 42, Sec. 3.

[25] *Ibid.*, Chap. 42, Sec. 22.

[26] *Ibid.*, Chap. 42, Sec. 23.

CHAPTER IV

Inequalities Existing in Other States

The widely differing ability of the various Massachusetts towns and cities to support their schools by local taxation, as shown in the preceding chapter, may be shown equally well for almost any state for which we have sufficient statistical data. In our examination as to the existence of inequalities in other states we shall first take the State of Connecticut, a state with conditions somewhat analogous to those of Massachusetts, and a state whose annual school report likewise contains very valuable statistical information.

The following table shows the conditions existing in the different counties of the State of Connecticut.

TABLE No. 6.

AN ANALYSIS OF THE SCHOOL RETURNS FOR THE DIFFERENT CONNECTICUT COUNTIES FOR THE SCHOOL YEAR 1901-1902.

(Calculated from data given in the Statistical Tables in the *An. Rept. Conn. Bd. Educ.* for 1903.

Counties.	No. of towns.	Total valuation.	Census, 4-16 yrs. Oct., 1901.	Valuation per child.
Hartford	29	$125,282,881	42,222	$2,965
New Haven	26	187,099,038	63,324	2,954
New London	21	39,265,200	18,006	2,180
Fairfield	23	127,408,654	42,682	2,985
Windham	15	18,445,546	9,891	1,867
Litchfield	26	33,529,789	14,090	2,379
Middlesex	15	19,085,059	8,443	2,260
Tolland	13	12,573,995	5,334	2,357
The State		$562,690,162	203,992	$2,759

(40)

TABLE No. 6 (Continued).

Counties.	No. of schools. (Depts.)	Av. valuation per school. (Dept.)	Rate of tax in mills for $250.
Hartford....................	835	$150,039	1.66 mills.
New Haven.................	1,085	172,441	1.45 "
New London...............	412	95,061	2.63 "
Fairfield....................	726	175,494	1.42 "
Windham...................	198	93,159	2.68 "
Litchfield..................	353	94,985	2.63 "
Middlesex..................	192	99,401	2.51 "
Tolland....................	149	84,389	2.97 "
The State...................	3,950	$142,453	1.75 mills.

An examination of the columns giving the average taxable valuation per school (teacher employed) and the rate of local tax that would be required to produce $250 per teacher, in the different counties, assuming no delinquents, shows five counties of about the same average wealth and three counties very much richer than the average. These three richer counties contain two-thirds of the population and four-fifths of the wealth of the entire state, and also contain nine of the ten cities of the state having a population of over 17,000, and eight of the ten wealthiest cities of the state. The city of New Haven, alone, contains 11.9% of the total population and 20.4% of the state's entire wealth.[1]

The county averages, however, do not give any real idea as to the extremes in valuation and the corresponding ability or inability of the towns to properly support a school by local taxation. To show these extremes, we have only to analyse, in a similar manner, any one of these counties by towns. Doing this, and taking for the purpose the county having the lowest (Windham) and the one having the highest (Fairfield) average valuation per census child, we get the results shown by the following tables:

[1] These facts and percentages are for the year 1901-02, and have been calculated from data given in the statistical tables of the *Rept. Conn. Bd. of Educ.* for 1903.

TABLE No. 7.

(Calculated from data given in the *Rept. Conn. Bd. Educ.* for 1903, statistical tables, pp. 262, 263, 275, and 284.)

Towns.	Total Valuation.	Census 4-16 yrs. Oct., 1901.	Valuation per child.	No. of schools. (Depts.)
Brooklyn	$1,263,092	510	$2,476	10
Ashford	208,137	115	1,809	7
Canterbury	375,597	156	2,407	11
Chaplin	173,277	102	1,698	3
Eastford	155,984	103	1,514	4
Hampton	283,850	124	2,281	7
Killingly	2,080,745	1,548	1,344	30
Plainfield	1,940,341	1,177	1,648	22
Pomfret	1,129,461	328	3,433	9
Putnam	3,144,294	1,459	2,155	17
Scotland	192,905	88	2,192	2
Sterling	459,827	257	1,789	8
Thompson	1,996,749	1,423	1,403	20
Windham	4,219,464	2,145	1,967	36
Woodstock	821,823	356	2,336	12
The County	$18,445,546	9,891	$1,867	198

TABLE No. 7 (CONTINUED).

Towns.	Av. valuation per school. (Dept.)	Rate of tax in mills for $250.	Rate of local tax levied, 1901-02.	Cost per pupil in Av. Dy. Att. for Maint. 1901-02.
Brooklyn	$126,309	1.98 mills.	3.11 mills.	$32.22
Ashford	29,734	8.41 "	4.03 "	18.59
Canterbury	34,145	7.33 "	4.24 "	18.27
Chaplin	57,759	4.32 "	4.70 "	21.30
Eastford	38,996	6.25 "	2.44 "	11.14
Hampton	40,550	6.17 "	4.57 "	18.95
Killingly	69,358	3.61 "	7.64 "	23.86
Plainfield	88,297	2.83 "	3.98 "	17.72
Pomfret	125,495	1.99 "	2.29 "	19.43
Putnam	184,958	1.35 "	4.05 "	26.49
Scotland	96,453	2.59 "	4.96 "	25.49
Sterling	57,478	4.35 "	4.73 "	15.92
Thompson	99,837	2.54 "	2.97 "	21.93
Windham	117,207	2.13 "	6.48 "	32.79
Woodstock	68,485	3.65 "	4.07 "	24.99
The County	$93,159	2.68 "		$24.47

TABLE No. 8.

AN ANALYSIS OF THE RETURNS FOR FAIRFIELD COUNTY, CONNECTICUT, FOR THE
SCHOOL YEAR 1901-02.

(Calculated from data given in the *Rept. Conn. Bd. Educ.* for 1903, statistical tables, pp. 260, 261, 274, and 283.)

Towns.	Total valuation.	Census 4-16 yrs. Oct., 1901.	Valuation per child.	No. of schools. (Depts.)
Bridgeport...............	$61,560,175	17,369	$3,544	219
Danbury.................	7,978,801	4,641	1,764	67
Bethel..................	1,189,543	715	1,663	18
Brookfield..............	431,200	196	2,200	8
Darien..................	2,606,241	443	5,883	11
Easton..................	489,310	189	2,588	9
Fairfield...............	3,360,460	953	3,526	17
Greenwich..............	8,758,830	2,662	3,294	50
Huntington.............	4,112,611	1,332	3,086	26
Monroe.................	357,500	194	1,843	7
New Canaan.............	1,939,190	594	3,265	17
New Fairfield...........	341,064	128	2,664	6
Newton.................	1,565,763	565	2,771	22
Norwalk................	13,840,031	4,632	2,984	71
Redding................	575,274	217	2,651	8
Ridgefield..............	1,879,961	549	3,424	17
Sherman................	324,802	128	2,539	6
Stamford...............	10,531,321	4,567	2,306	92
Stratford...............	1,437,031	904	1,589	17
Trumbull...............	642,293	322	1,995	8
Weston.................	298,184	155	1,924	5
Westport...............	2,319,055	853	2,719	14
Wilton.................	870,014	374	2,324	11
The County............	$127,408,654	42,682	$2,985	726

TABLE No. 8 (CONTINUED).

Towns.	Av. valuation per school. (Dept.)	Rate of tax in mills for $250.	Rate of local tax levied, 1901-02.	Cost per pupil in Av. Dy. Att. for Maint.
Bridgeport.......	$281,097	.88 mills.	3.26 mills.	$28.06 *
Danbury	119,088	2.10 "	4.40 "	24.55
Bethel...........	66,085	3.79 "	7.16 "	18.70
Brookfield.......	53,900	4.64 "	4.55 "	20.25
Darien...........	236,840	1.05 "	2.45 "	33.79
Easton...........	54,364	4.60 "	4.43 "	21.07
Fairfield.........	197,674	1.26 "	3.19 "	29.09
Greenwich.......	175,177	1.43 "	2.43 "	24.50
Huntington......	158,177	1.68 "	3.20 "	19.91
Monroe.........	51,071	4.90 "	4.25 "	17.01
New Canaan.....	113,481	2.20 "	4.29 "	26.22
New Fairfield....	56,844	4.40 "	3.89 "	22.89
Newton.........	71,171	3.51 "	3.97 "	24.39
Norwalk........	194,930	1.28 "	2.93 "	22.26
Redding.........	71,909	3.48 "	2.96 "	20.18
Ridgefield.......	110,586	2.26 "	2.89 "	20.95
Sherman........	54,134	4.61 "	3.47 "	19.21
Stamford........	144,471	1.73 "	6.78 "	30.40
Stratford........	84,531	2.96 "	6.76 "	21.84
Trumbull........	80,287	3.13 "	5.19 "	25.86
Weston..........	58,037	4.33 "	3.07 "	19.59
Westport........	165,646	1.51 "	1.85 "	14.96
Wilton..........	78,183	3.19 "	2.79 "	15.87
The County	$175,494	1.42 "		$23.18

* The cost per pupil in average daily attendance for Bridgeport is given in the tables as $21.31, which is evidently a mistake. Calculation makes the cost to be $28.06.

An inspection of the tables for these two counties shows the existence of very great inequalities in the distribution of wealth among the towns of the two counties. The difference in taxable valuation per school to be maintained of the towns of Windham County having the highest and the lowest average valuation per school (teacher employed) being as 185 (Putnam) to 29 (Ashford), and in Fairfield County being as 281 (Bridgeport) to 51 (Monroe), or six and one-third times in the first county and five and one-half times in the other.[2] On the basis of the number of mills of tax which would be required to produce $250 per teacher employed the following results are shown:

[2] In ability to provide the advantages of a good education the inequalities are much greater than is shown by these tables alone.

Rate.	Windham Co.		Fairfield Co.	
Less than 1 mill...................	0	towns.	1	towns.
From 1 to 2 mills.................	3	"	7	"
From 2 to 3 mills.................	4	"	4	"
From 3 to 4 mills.................	2	"	5	"
From 4 to 5 mills.................	2	"	6	"
From 5 to 6 mills.................	0	"	0	"
From 6 to 7 mills.................	2	"	0	"
From 7 to 8 mills.................	1	"	0	"
From 8 to 9 mills.................	1	"	0	"

These inequalities are further emphasized when the tables presented here are compared with the statistical data in the Report from which these tables were compiled.[3] One comparison will illustrate sufficiently. In Windham County, for example, the town of Ashford, with a tax of 4.03 mills, in addition to the State aid received, was able to pay its seven teachers an average of only $19.04 per month and maintain its schools only 154¼ days, while the town of Putnam, on practically the same rate of local tax (4.05 mills) was able to spend a half more per year on each pupil; to maintain its schools 180 days each; pay four men teachers an average monthly salary of $85.61, and eighteen women teachers an average monthly salary of $40.92; to spend on supplies and teaching equipment $36.00 for each teacher employed, exclusive of wages, fuel, repairs, and libraries, to Ashford's $5.00; and to maintain a four years' high school taught by five teachers, while Ashford neither maintained a high school nor is listed as having paid tuition for any of its children in a neighboring town.[3] Practically the same rate of local tax produced entirely different results. The town of Putnam could do with ease what it would be impossible for the town of Ashford to do.

The difference in the required town tax rate for schools between the wealthier and the poorer towns, with what this tax will provide, may be shown further by comparing the seven towns in Fairfield County (the wealthiest county, Table No. 8) which had the highest average valuation per school maintained with the seven towns of the same county which had the lowest average valuation per school, during the school year 1901-2.

[3] Additional facts taken from the "statistical tables" in the *An. Rept. Conn. Bd. Educ.* for 1903, and the statistics as to high schools on pp. 146 and 151.

TABLE No. 9.

Seven Wealthiest.		Seven Poorest.	
Av. valuation per school.	Tax in mills.	Av. valuation per school.	Tax in mills.
$281,097 * (4)......................	3.26	$71,171...............	3.97
236,840 †..........................	2.45	66,085 (3) (3).......	7.16
197,674...........................	3.19	58,037...............	3.07
194,930 ‡ (4) (3) (3) (3) (K, 10).	2.93	56,844...............	3.89
175,177 (4) (K, 2).................	2.43	54,364...............	4.43
165,646...........................	1.85	54,134...............	3.47
158,177 (4).......................	3.20	53,900...............	4.55
Average rate...................	2.76	Average rate......	4.37

* Town of Bridgeport; school census of 17,369 in 1901.

† Town of Darien; school census of only 443 in 1901.

‡ Town of Norwalk; school census of 4,632 in 1901.

The figures in parentheses (3) indicate a high school or schools maintained, with the number of years of instruction indicated by the numeral enclosed.

The figures in brackets following a K indicate the number of kindergarten teachers employed, (K, 2).

The inequalities in the distribution of wealth which have been shown for the counties and certain groups of towns in Massachusetts and Connecticut, with the accompanying inequalities in ability to maintain good schools unaided by the State, are to be found, in greater or less degree, in every state in the Union, and could be shown as existing generally in any state for which proper statistical data is available. When one passes from such well settled states as Massachusetts and Connecticut, states which have an average density of population [4] to the square mile of 348.9 and 187.5 respectively, to the more sparsely settled states of the Mississippi Valley and the West, these inequalities become even more prominent. To illustrate these inqualities still further we shall make a series of similar analyses of returns for the first few counties of five other states. These states have been selected somewhat at random, but are illustrative. Any other five states selected would show about the same results.

We shall first make a comparison of the first eight counties, in alphabetical order, of the State of Wisconsin, a state of an average density of population of 28.0.[4] To these we attach, for

[4] *12th U. S. Census*, 1900, Vol. I, *Population*, Introduction.

further comparison, the county having the largest city in the state, and the state averages.

TABLE No. 10.

Counties.	Total valuation.[5] 1903.	Census,[6] 4-20 years. 1903.	Av. Val. per census child.	No. Trs. employed.[6] 1903-04	Av. Val. per Tr. employed.	Tax in mills for $250 per Tr.
Adams.........	$4,836,660	3,294	1,468	131	$36,997	6.75
Ashland *.......	10,994,592	7,206	1,526	138	79,671	3.14
Barron..........	9,870,102	9,378	1,052	230	42,913	5.83
Bayfield........	12,334,819	4,572	2,698	100	123,348	2.03
Brown †........	29,469,970	16,891	1,745	185	159,297	1.56
Buffalo..........	10,873,419	6,259	1,737	132	82,367	3.04
Burnett.........	2,339,145	3,530	663	108	21,659	11.57
Calumet.........	15,629,094	6,548	2,387	90	173,656	1.44
Milwaukee ‡....	391,432,556	117,881	3,321	1,136	344,579	.72
The State.......$	1,753,172,000	758,626	2,311	13,669	$128,259	1.95

* Includes the city of Ashland.
† Includes the city of Green Bay.
‡ Includes the city of Milwaukee.

Ashland and Bayfield Counties are located on the shore of Lake Superior, with a good harbor in common, and possess mines and many lines of railway; Brown County is a small county at the lower end of Green Bay, and includes the city of Green Bay with its shipping and six lines of railway diverging from it like the spokes of a wheel; Calumet County is another small county, just south of Brown, borders on Lake Winnebago, is connected with Green Bay by a river and two lines of railway, and has two other east-and-west lines of railway crossing the County. Barron and Burnett Counties are larger than Calumet or Brown, but these are to the northwest and not so advantage-

[5] Equalized Assessment of the State Tax Commission for the year 1903, from figures supplied by the Secretary of the Commission. If the county assessor's valuations for the same year are used the range of variations is increased.

[6] *Bien. Rept. Supt. Pub. Instr. Wis.* for 1903-04, statistical tables, pp. 2, 26, 99, 118. I have used the total valuation for 1903, on which school money for 1903-04 must be raised; the school census figures gathered during the summer of 1903, on which the annual apportionment of the following December is made; and the number of teachers employed to teach the schools during the school year 1903-04.

ously located. Adams County is in the central part of the state,
but is without railroads and hence somewhat isolated. The in-
equalities in taxing power for schools between these counties is
very marked. Burnett County, for example, would be required
to levy 5.9 times as large a tax as the average of the State, 8.0
times as large as Calumet County, and 16.1 times as large a tax
as Milwaukee County to raise the same amount of money, de-
linquent tax-payers being neglected.

Inequalities of the same nature may be shown by a comparison
of the first eight counties, as arranged in alphabetical order, of
the State of Missouri,[7] with the city of St. Louis and the aver-
age for the state as a whole.

TABLE No. 11.

ILLUSTRATING INEQUALITIES EXISTING IN THE STATE OF MISSOURI.

(Calculated for the school year 1903-04 from statistical data given in the
Rept. State Supt. of Pub. Instr. of Mo., 1904.)

Counties.	Total valuation.	Census, 4–20 years.	Av. Val. per census child.	No. Trs. employed.	Av. Val. per Tr. employed.	Tax in mills for $250 per Tr.
Adair	$5,500,000	6,800	$809	151	$36,423	6.86
Andrew........	7,572,928	5,020	1,508	108	70,119	3.56
Atchison *......	8,389,345	4,775	1,757	126	66,582	3.75
Audrain........	8,752,360	6,549	1,336	146	59,263	4.22
Barry	4,515,310	8,368	539	137	32,958	7.58
Barton.........	5,998,313	5,817	1,031	141	42,540	5.87
Bates...........	10,169,171	8,907	1,142	173	58,781	4.25
Benton.........	4,291,470	5,437	789	109	39,371	6.34
St. Louis, City..	415,824,520	178,260	2,331	1,859	223,682	1.11
The State......$1,284,294,571		995,536	$1,290	17,036	$75.387	3.32

* Due to an evident typographical error in the Report for 1904, the figures
for this county were taken from the Report for 1903.

So far as revealed by an inspection of the map, there is no
great difference in these counties, but the inequalities in per-
capita valuation are quite marked. All are below the State
average valuation per school maintained. None contain large
cities. All have two or more lines of railway crossing the county,
except Barry, which is crossed by but one, and Benton, which
has only a branch line entering to the county seat. Andrew,

[7] Average density of population, 24.7. *12th U. S. Census*, 1900, Vol. I,
Population, Introduction.

Atchison, Barton, and Bates are on the western edge of the state, Adair on the northern, and Barry on the southern. Audrain and Benton are in the western half of the state. These counties are all distinctively " white counties," there having been but seventeen negro teachers employed in 1904 in the eight counties. The inequalities in taxing power are well shown by the last column of figures.

These inequalities in taxing power for schools may be shown even better by a similar comparison of the first eight counties, in alphabetical order, of the State of Kansas, a state with an average density of population (1900) of 18.0, and a state which, except for the income [8] from the permanent State and County School Funds, distributed equally to all on census, supports its schools wholly by district taxation.

TABLE No. 12.

ILLUSTRATING INEQUALITIES EXISTING IN THE STATE OF KANSAS.

(Calculated for the school year 1903-04 from data given in the statistical tables of the *14th Bien. Rept. Supt. Pub. Instr., Kansas,* 1904.)

Counties.	Total valuation.	Census, 5-21 Yrs.	Av. Val. per census child.*	No. Trs. employed.	Av. Val. per Tr. employed.*	Tax in mills for $250 per Tr.*
Allen.........	$6,878,147	9,167	$753	107	$64,281	3.90
Anderson.....	3,475,742	4,559	762	105	33,102	7.54
Atchison......	5,034,134	7,838	642	86	58,536	4.24
Barber........	1,902,748	2,288	834	84	22,652	10.88
Barton........	5,271,358	4,819	1,094	117	45,054	5.55
Bourbon......	5,751,368	9,764	589	126	45,646	5.43
Brown........	5,481,063	6,664	823	102	53,736	4.63
Butler........	6,507,748	7,763	838	193	33,719	7.35

* The State average per census child was $714. The State average per teacher employed cannot be determined, due to the absence of reports from a number of the first and second class cities, but it is probably not very far, estimating roughly, from $32,500. This would place these counties as above the average in wealth.

A comparison of the columns showing the average valuation per census child and the average valuation per school maintained, which means teachers employed, shows what a poor basis average valuation per census child is for estimating the needs and abilities of a community, with reference to the proper maintenance of

[8] The State apportionment was only 82c. per capita on census for 1904. *14th Bien. Rept. Supt. Pub. Instr. for Kan.,* 1903-04, p. 86.

its schools. Allen and Anderson Counties have practically the
same average valuation per census child, and each requires about
the same number of teachers. The total valuation of Allen
County is twice that of Anderson, but the number of census chil-
dren is also twice as large. The result is that Allen County,
due to the fact that it can teach its children with much greater
economy than Anderson County, because of its greater density
of population, has an average of about twice as much taxable
wealth to maintain each of its schools as has Allen County, and
a correspondingly lower local tax rate.

These inequalities may be further shown by comparing the
first eight counties, in alphabetical order, of the State of Cali-
fornia, with one another and with the combined City and County
of San Francisco, and these in turn with the average for the
State as a whole. The density of population of California (1900)
was 9.5 persons to the square mile.

TABLE No. 13.

ILLUSTRATING INEQUALITIES EXISTING IN THE STATE OF CALIFORNIA.

(Calculated for the school year 1903-04 from data given in the statistical
tables of the *21st Bien. Rept. Supt. Pub. Instr., Cal.*, 1903-04.)

Counties.	Total valuation.	Census, 5-17 years.	Av. Val. per census child.	No. Trs. em-ployed.	Av. Val. per Tr. employed.	Tax in mills for $250 per Tr.
Alameda........	$128,681,766	34,939	$3,362	575	$223,620	1.12
Alpine..........	422,063	78	5,411	3	140,688	1.77
Amador..........	4,918,908	2,389	2,059	63	78,236	3.18
Butte...........	16,057,766	4,677	3,433	108	148,683	1.68
Calaveras.......	6,177,275	2,631	2,348	73	84,620	2.96
Colusa..........	12,188,096	1,858	6,559	53	229,964	1.08
Contra Costa....	21,753,956	4,897	4,442	98	221,979	1.13
Del Norte.......	2,882,445	678	4,251	18	160,136	1.56
San Francisco...	564,070,301	97,353	5,794	996	566,336	.44
The State.......	$1,598,603,226	407,398	$3,923	7,797	$205,028	1.22

San Francisco County has the same boundaries as the City of
San Francisco. Alameda County, though large and partly moun-
tainous, contains the three large and wealthy cities of Berkeley,
Oakland, and Alameda, and also has a rich fruit-growing section.
Alpine is a mountain county without railroads, and Amador and
Calaveras are in large part similarly situated. Butte and Colusa
are farming and fruit-growing counties in the upper Sacramento

Valley. Contra Costa is a grain and fruit-raising county, with a long deep-water frontage on upper San Francisco Bay. Del Norte is a small county in the northwest corner of the state, and has no railroads.

An inspection of the columns showing average valuation per census child and average taxable valuation per teacher shows, like the table for the Kansas Counties, the unreliability of any estimates based on average valuation per census child. San Francisco, for example, has an average valuation per census child not far different from that of Alpine County, though the valuation per teacher employed is 3.3 times as great. The inequalities in taxable valuation are quite marked in these counties, but an inspection of the tables given in the Report [9] from which these counties were selected and calculated shows that even greater inequalities could be shown by selecting other counties. The taxable valuation of San Francisco per teacher is very high, being 2.8 times the average for the state as a whole and 7.2 times that of Amador County. Calculating from the data [9] given for 1904, we find that for that year San Francisco had 36% of the taxable property of the state, 24% of the school census of the state, and employed but 13% of the teachers of the state.

One further illustration of existing inequalities may be given. Taking the first ten counties of Indiana, in alphabetical order, the two counties containing the two largest cities, and the state as a whole, and calculating as in the preceding tables we get the next comparative table. The density of population in Indiana (1900) was 70.1 persons to the square mile.

[9] *21st Bien. Rept. Supt. Pub. Instr. for Cal.*, 1903-04, pp. 152, 160, 177, 181.

TABLE No. 14.

ILLUSTRATING INEQUALITIES EXISTING IN THE STATE OF INDIANA.

(Calculated for the school year 1903-04 from data given in the statistical
tables of the *Bien. Rept. Supt. Pub. Instr., Ind.,* for 1904.

Counties.	Total valuation.[10]	Census,[11] 6-21 years.	Av. Val. per census child.	No. Trs. employed (schools).	Av. Val. per school maint.	Tax in mills to produce $250 per school.
Adams.......	$11,375,490	7,707	$1,606	139	$81,838	3.06
Allen *.......	43,340,690	24,789	1,748	360	120,391	2.08
Bartholomew .	16,831,525	6,799	2,475	170	97,832	2.55
Benton.......	16,246,885	3,720	4,367	127	127,927	1.76
Blackford.....	8,507,245	5,381	1,581	103	82,594	3.01
Boone........	18,063,020	7,390	2,444	180	100,350	2.50
Brown........	1,859,540	3,163	588	77	24,150	10.41
Carroll.......	12,072,256	5,780	2,089	161	74,921	3.33
Cass.........	18,556,205	10,191	1,722	202	91,862	2.72
Clark........	10,224,812	9,700	1,054	180	56,805	4.40
Marion †.....	155,603,053	50,876	3.058	950	163,792	1.53
Vanderburg ‡.	32,762,530	23,306	1,406	339	96,663	2.59
The State	$1,359,300,199	768,842	$1,769	16,256	$83,618	2.99

* Contains the third largest city in the State, Ft. Wayne.
† Contains the largest city in the State, Indianapolis.
‡ Contains the second largest city in the State, Evansville.

The inequalities in county averages are less in these counties
than in most of the preceding states. This is partly due to the
fact that all of the counties, except Brown, Bartholomew, and
Vanderburg are located in the northern half of the state and north
of the glacial drift line, and hence represent good conditions.
Bartholomew is also well situated and is a comparatively rich
county. Brown County, on the other hand, has the lowest prop-
erty valuation of any of the ninety-two counties of the state.
Vanderburg's large valuation is due chiefly to its large city.

Table No. 20, Chapter VI, showing the difference between a
general state school tax and a county tax in rate required to pro-
duce the same result, gives a similar illustration for the different
counties of the State of Washington. The basis of calculation in
Table No. 20 is the rate of tax in mills required to produce a sum
equal to $10.00 per child in average daily attendance at school
during the preceding year. This table shows that, levied on the

[10] *An. Rept. State Auditor, Ind.,* 1904.
[11] *Bien. Rept. Supt. Pub. Instr., Ind.,* 1904.

state as a whole, 7.0 mills would be required on the valuation
for 1904. If the same were levied in the counties individually as
a county tax the extremes required would be 3.4 mills and 21.2
mills. In twelve counties the rate required would be less than
the state average, while in twenty-four counties it would be higher
than the state average, being above 10 mills in nine counties and
above 15 mills in three counties.

Even a hasty inspection of the columns of the tables so far
presented, showing what rate of local tax would be necessary
to produce $250, assuming that there would be no delinquent
tax-payers and neglecting any state aid, will serve to show the
great inequality of burden for support if any large percentage
of the expense is to be paid by local taxation, and the great
difficulty of providing by local taxation for even a legal mini-
mum of good education in some of the towns and counties used
as illustrations. Much less could many of these communities
provide any of the higher advantages of education. To show this
comparatively we tabulate for each group the extremes of taxa-
tion required to produce, by local taxation, a minimum of $250
per teacher per year for the maintenance of schools in the town
or county.

TABLE No. 15.

(Compiled from the preceding tables.)

Table number.	Item.	Rate of taxation in mills.		
		Highest.	Lowest.	Average.
2	37 Massachusetts towns..............	11.62	.36	....
6	8 Connecticut counties..............	2.97	1.42	....
	State of Connecticut..............	....	....	1.75
7	15 towns of Windham Co............	8.41	1.35	2.68
8	23 towns of Fairfield Co.............	4.90	.88	1.42
10	9 Wisconsin counties...............	11.57	.72	....
	State of Wisconsin................	....	....	1.95
11	8 Missouri counties.................	7.58	3.56	....
	State of Missouri.................	....	....	3.32
12	8 Kansas counties..................	10.88	3.90	....
13	9 California counties................	3.18	.44	....
	State of California................	....	....	1.22
14	10 Indiana counties.................	10.41	1.76	....
	State of Indiana..................	....	....	2.99

While the towns or counties having the lowest rate of taxation would have no difficulty in maintaining good schools taught by good teachers for nine or ten months in the year, with a high school in addition, the towns or counties having the highest rate of taxation could maintain, with difficulty, only poor schools, taught by cheap teachers, for the legal minimum term, and could offer no advantages beyond the " common branches " required by law of all schools.

Of course the effort made by a community in maintaining its schools is not shown by its school tax alone, but by the total of all its taxes and the proportion of the total devoted to education, and this fact ought to be considered in any serious attempt to equalize the burdens of support. A community, though, has only about so much money to spend and can raise only so much on a certain number of mills of tax, so that the tax rate required to raise a certain sum is a fair indication of the relative efforts which communities must put forth to maintain their schools.

Any attempt at the equalization of the opportunities for education, much less any attempt at equalizing burdens, is clearly impossible under a system of exclusively local taxation. Some form of general aid is a necessity if any thing like common advantages are to be provided for all. In the two following chapters we shall examine the different forms of general aid which the different states have created with a view to seeing to what extent each can be depended on for use, in equalizing either the advantages or the burdens of public education.

PERMANENT ENDOWMENT FUNDS FOR EDUCATION

THOSE interested in general education seem early to have real-
ized that local taxation alone would not be sufficient to properly
maintain schools, and a series of endowment grants for education
was begun. In a few states the formation of endowment funds
was begun before the schools were established or local taxation
authorized.[1]

Endowments for education are almost as old as the settlements
in America. In the early New England colonies, where land was
plentiful and money scarce, the earliest land endowments for edu-
cation were made. These were granted to maintain a school or
schools in various towns. Dorchester,[2] with the income from
Thompson's Island, set apart in 1639; Boston,[3] with the income

[1] In the constitutions of North Carolina (1776) and Georgia (1777) in
the South, of Pennsylvania (1776) and Vermont (1777) in the North, and
of Ohio (1802) and Indiana (1816) in the West, provision was made for
a system of schools to be established by the legislature. The constitution
of Indiana required that there should be established, " as soon as circum-
stances would permit, a general system of education, ascending in a regular
graduation from the township schools to a state university, wherein tuition
shall be free and equally open to all." (Art. IX, Sec. 2, of the Constitu-
tion of 1816).

In North Carolina, however, a school fund was not begun until 1825,
and no system of schools was instituted until 1840. In Georgia a state sys-
tem was not instituted until 1858. In Pennsylvania, 1834 really marks the
beginning of a free school system for the state. Vermont made a general
tax obligatory on the towns in 1810, and began a school fund in 1825. In
both Ohio and Indiana the township fund endowment was begun by the
Ordinance of 1789 and confirmed by the terms of admission to the Union,
but in Ohio district taxation was first made possible in 1821, and a state
school tax was begun in 1838, while the first school law in Indiana was
enacted in 1824 authorizing local taxation, but a state school tax was not
authorized until 1849.

[2] Town Council order of May 20th, 1639.

[3] Clews, E. W., *Educational Legislation and Administration of the Colo-
nial Governments*, p. 61.

from Deere Island, set aside in 1641, and the one thousand acres
of land granted it for the support of schools by the General Court
in 1660; the one thousand acres granted Charleston [4] in 1659
for the same purpose; Plymouth, with the income from the Cape
Cod fishing industry, set apart for free schools in 1670; [5] and
the Island of Matinicunk granted to Burlington [6] by the Assembly
of West Jersey in 1682, to be used " from henceforth and forever
hereafter for educational purposes," are well known examples of
these early endowments. In New Hampshire, also, most of the
incorporated towns made grants of land [7] for the support of
schools between 1680 and 1783. Some of these early endow-
ments were sufficient to entirely support the schools, while others
had to be supplemented by subscription, tuition, or local taxation.
As the population increased, the idea of trying to support schools
by endowments was gradually superseded by the idea of using
the income from endowments as far as it would go and then sup-
plementing it by local taxation, and, later still, by state taxation.

In 1733, Connecticut [8] set apart seven towns in Litchfield
County, then being laid out for settlement, for the support of
schools. A series of minor grants were made to different
schools during the colonial period, [9] and in 1795, on the sale of
the so-called " Western Reserve " for one million dollars, Con-
necticut added this amount to the permanent school fund of the
State. [10] In 1786, New York [11] provided for the laying out of
certain lands to aid in supporting churches and schools, and in
1801 appropriated the income from the sales of a half million
acres of land to a permanent fund for the support of common
schools. A number of other states early began to build up a
permanent fund for the support of education; [12] Tennessee in

[4] *Ibid.*, p. 62.

[5] *Plymouth Historical Society Collections*, xiv, p. 80.

[6] Murray, D., *History of Education in New Jersey*, p. 19.

[7] Bush, Geo. G., *History of Education in New Hampshire*, p. 12.

[8] Steiner, B. C., *History of Education in Connecticut*, p. 30.

[9] *Ibid.*, p. 31.

[10] *Ibid.*, p. 39; Act of May, 1795.

[11] Sherwood, S., *The University of the State of New York*, pp. 519-520.

[12] For a sketch of these early funds in the various states see the article
by A. D. Mayo, entitled " Original Establishment of State School Funds,"
in *Rept. U. S. Com. Educ.*, 1894-95, II, pp. 1507-08.

1806; Virginia in 1810; South Carolina in 1811; New Jersey in 1820; Maine, New Hampshire, Louisiana, and Kentucky in 1821; Vermont and North Carolina in 1825; and Massachusetts [13] in 1834, serving as examples. In Virginia and North Carolina the fund was set aside chiefly for the education of the poor.

In the development of the State endowments the general government has rendered very valuable assistance. In providing for the government of the Virginia Cession of all her lands north of the Ohio River, Congress adopted an ordinance in 1785, which provided for the reservation and sale of " lot numbered 16, of every township, for the maintenance of public schools throughout the township," [14] and this provision was confirmed in the famous Ordinance of 1787. This reservation and grant marks the commencement of a policy since uniformly observed. In 1803 Congress further provided [15] that all states in the Mississippi Valley should share in the educational privileges of the Ordinance of 1787. In 1848 the grant of land for schools was raised to two sections, and Utah, in 1896, received four sections. [16] In the states of the North-West Territory the cession was made directly for the benefit of the schools of the township in which the section was located, though later in other states the fund arising from these sections was vested in the state and for the benefit of the schools of the state as a whole. This early idea of equal division among all and aid to particular localities instead of to the state as a whole has since given rise to marked inequalities, the states of Indiana and Missouri, as will be shown later, being good illustrations.

In 1836 Congress provided [17] for the distribution of the surplus revenue in the national treasury, after deducting $5,000,000, to be distributed among the several states in proportion to the

[13] For a short sketch of the history of the fund see *64th An. Rept. Mass. Bd. Educ.*, 1899-1900, p. 16.

[14] *Journals of Congress*, IV, 521.

[15] Blackmar, F. W., *History of Federal and State Aid to Higher Education in the United States*, p. 45.

[16] Maine, Texas, and West Virginia did not share in these grants. Maine sold twenty townships in 1821 to establish a fund, while Texas devoted certain lands to the support of schools, and has to-day the largest permanent school fund of any state in the Union.

[17] *United States Statutes at Large*, V, 55.

number of Senators and Representatives in Congress. Eight states[18] devoted their quotas entirely to education; two states[19] devoted one-half; two states[20] devoted one-third; and three states[21] devoted a varying portion of the fund to this purpose. At 5% interest the portion devoted to education would have produced nearly five billion dollars of income for schools by this time.[22]

In 1850[23] Congress granted to the several states the proceeds of certain swamp lands. A few of the states have devoted the proceeds of their lands to the building up of the permanent state fund. Certain saline lands, granted by Congress, have also netted small sums for education to a few of the states,[24] and the proceeds of the five hundred thousand acres of public land granted to new states has been set apart for the benefit of education by a number of the western states.[25] A few special grants have also been made to individual states,[26] and a number of the states have added the three or five per cent. received from the Government from the sale of public lands within the state,[27] to the principal of the school fund.

Many of the states have added and continue to add, in a great variety of ways, to the endowments received from the general government or to the permanent funds established by themselves. A few examples may be mentioned.

In 1834 Indiana raisd $80,000 by a twelve and a half per cent. tax on each share of bank stock, and provided for the establish-

[18] Alabama, Delaware, Kentucky, Missouri, New York, Ohio, Rhode Island, and Vermont.

[19] Connecticut and Indiana.

[20] Georgia and South Carolina.

[21] Illinois, Maryland, and North Carolina (three-fourteenths).

[22] For a detailed history of this distribution see *The History of the Surplus Revenue of 1837,* by Edw. G. Bourne (New York, 1885).

[23] Act of Sept. 28, 1850.

[24] Ohio and Indiana are examples.

[25] California, Colorado, Iowa, Kansas, Nevada, Oregon, Washington have so devoted their funds.

[26] The Huntington fund in Vermont is the chief grant of this kind.

[27] The requirement that this be so devoted is a common School Fund enumeration item in the constitutions of the western states.

ment of a State bank, with a percentage of the loan to be paid back in time to the principal of the common school fund. This has netted the state over five and one-half million dollars.[28] Rhode Island adds all fees derived from auctioneers' licences and all forfeited apportionments.[29] Maine adds one-half of the fines imposed for the unlawful employment of children.[30] Georgia has devoted the income from a variety of items, among which are one-half the net income from the rental of the Western and Atlantic Railway, and the proceeds of the State's stock in the Georgia Railway, the Bank of Augusta, and the Bank of Georgia.[31] Nevada adds the proceeds of all fines for violations of the penal laws, and two per cent. of the gross proceeds of all toll-roads and bridges.[32] Massachusetts has appropriated $100,000 annually [33] for some years out of the public treasury to the principal of the permanent fund, the appropriation to stop when the fund reaches $5,000,000. Gifts and devises, unclaimed estates, fines, liquor licenses, unclaimed fees, and forfeited apportionments, are some of the means adopted by the different states to increase their permanent funds for the support of education.

As it is to-day, forty states have permanent state and local funds and unsold lands varying in amount [34] from that of North Carolina, with $194,159, to that of Texas, with a fund of $30,-489,932, productive lands estimated as worth $15,877,556, and un-productive lands estimated as worth $5,400,000, or a total of $51,767,488.

Beside the general state endowments and the Congressional township endowments for education, individual town or city endowment funds are common in New England, and some of the central and western states have also established permanent county

[28] Blackmar, F. W., *History of State and Federal Aid to Education,* pp. 230-31.

[29] *General Laws of Rhode Island,* Ch. 30, Secs. 2, 3.

[30] *Maine Revised Statutes,* 1903, Ch. 40, Sec. 54.

[31] *Georgia Acts of 1887,* p. 79.

[32] *Compiled School Laws of Nevada,* 1901, Art. XIX, Sec. 1.

[33] *Massachusetts Resolves of 1894,* Ch. 90. Also see *64th An. Rept. Mass. Bd. Educ.,* 1899-1900, p. 17.

[34] See Statistical Table 20, *Rept. U. S. Com. Educ.,* 1902, I, p. xcii.

funds. Missouri, for example, has a series of funds, as is shown by the following tabular statement [35] for 1904:

Permanent State School Funds	....	$3,159,173.40
" Seminary Funds	....	1,243,099.63
" County School Funds	....	4,669,209.58
" Township School Funds	....	2,415,149.90
" Special District School Funds	....	1,664,739.57
Total School Funds of the State	....	$13,151,372.68

A number of cities in various parts of the country possess property or funds which also produce a certain fixed income.[36]

In some states the state endowments originally set apart for education have been lost or spent by the state for other purposes, and are to-day only " a perpetual obligation "[37] upon which the

[35] *An. Rept. Supt. Pub. Instr., Mo.*, 1904, p. 38. See also Table No. 16, further on in this chapter.

Texas also has large county school funds, as have a number of other states.

[36] San Francisco, for example, owns a number of valuable lots with business houses on them in the heart of the business section of the city.

[37] " The debt due by the State to the free school fund is hereby declared to be the sum of $1,130,867.51 in principal, and shall be kept on the books of the auditor and treasurer to the credit of the several townships entitled to the same; the said principal being the proceeds of the sales of lands heretofore granted by the United States for the use and support of free public schools, and shall be and remain a perpetual fund, on which the State shall pay an annual interest of four per cent." *Constitution of Louisiana*, Art. 257.

" The bond of the Commonwealth, issued in favor of the Board of Education for the sum of $1,337,000.00, shall constitute one bond of the Commonwealth in favor of the Board of Education, and . . . . shall be held inviolate for the purpose of sustaining the system of Common Schools." *Constitution of Kentucky*, Sec. 184.

" The General Assembly shall make provision, by law, for the payment of the interest of said school fund." (Law provides six per cent.) *Ibid.*, Sec. 185.

" The permanent school fund of the State shall be $1,500,000, ascertained and declared by Section 946 of the Code, and recognized by the Constitution of the State to be the permanent school fund. To this shall be added the interest which has accrued on the same, and not paid by the State, amounting, on the first of January, 1873, to $1,012,500, making the entire permanent State school fund $2,512,500. For this $2,512,500 a certificate of indebtedness shall be issued . . . and shall provide for the pay-

state pays a state tax under the name of " an annual interest."
In reality such " interest " does not differ from a required annual
state appropriation for schools, such as exists in Pennsylvania,[38]
a state which has no permanent school fund.   In Rhode Island
the income is fixed by law at a definite amount, and what is lack-
ing is made up by money from the treasury.[39]   This is also true
in a few other states.

The Annual Reports of the United States Commissioner of
Education each year contain a statement of the principal and in-
come of the permanent endowment funds of the various states of
the Union.[40]   The amount of the income as given, however, in-
cludes the income from permanent county, township, and local
funds as well as the income from the permanent state school
fund.   The township funds vary greatly in amount, due to
variations in the value of the original township school sections,
the prices for which these lands were sold, and the care with
which the funds have been administered.   The county funds,
likewise, vary greatly in amount.   Hence it naturally happens
that the amount received per census child or per teacher varies
greatly, and probably nowhere equals the amount which would
be obtained from the U. S. Bureau figures.   This is well shown
by a comparison of the first eight counties, in alphabetical order,

ment of interest thereon at the rate of six per cent, semi-annually." *Ten-
nessee Laws of 1873*, Ch. 25 ;   *School Laws of Tennessee*, 1895, Sec. 34.

Figured out from State valuations for 1904 these are equal to an annual
State school tax of 1⅓c. on the $100 in Kentucky ; 1¼c. in Louisiana ;
and 4½c. in Tennessee.

[38] " The General Assembly shall provide for the maintenance and sup-
port of a thorough and efficient system of public schools, wherein all of
the children of the Comonwealth, above the age of six years, may be edu-
cated, and shall appropriate at least $1,000,000 each year for that purpose."
Constitution of Pennsylvania, Art. X, Sec. 1.

The State appropriation for common schools for 1902-03 was $5,525,000.
The sum of $25,000 was also appropriated for township high schools.
Rept. Supt. Pub. Instr., Pa., 1903, p. 17.

[39] " The sum of $120,000 shall be annually paid out of the income of
the permanent school fund and from other money in the Treasury for
the support of public schools in the several towns on the order of the
Commissioner of Public Schools." *General Laws of Rhode Island,* Ch.
53, Sec. 1.

[40] *Rept. U. S. Com. Educ.,* 1902, I, Commissioner's Introduction, Tables
12 and 20.

of the State of Missouri, a state having state, county, township, and special district permanent funds.

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TABLE No. 16.

VALUE OF THE INCOME FROM PERMANENT FUNDS IN EIGHT MISSOURI
COUNTIES.

</div>

(Calculated from the returns of County Clerks for the year 1901-02, as given in the *Rept. Supt. Pub. Instr., Mo.,* 1902, p. 34.)

		Per capita value on census, 6-20 years, of income from:		
County.	*State Fund and Tax @ $1.29.*	*County Funds.*	*Township Funds.*	*Total from all Funds.*
Adair....................	$1.29	$ .49	$ .16	$1.94
Andrew..................	1.29	.71	.27	2.27
Atchison................	1.29	1.45	.31	3.05
Audrain.................	1.29	.27	.29	1.85
Barry...................	1.29	.23	.20	1.72
Barton *................	1.29	.79	.45	2.53
Bates...................	1.29	.45	.33	2.07
Benton..................	1.29	.26	.23	1.78

* Income from Special District Funds in this county = $36.75.

The inequalities produced by the existence of these local township funds are common in every state in which they have not been gathered up into the general state fund, and, where this has not been done, but few states have made any attempt to effect an equalization by considering their existence in apportioning school funds. In the Western states these have been united with the State School Fund, as they should be in all cases. The work of Arkansas in this connection is worthy of particular mention. (See Chapter IX, foot-note 7.)

However large the permanent endowments for education may seem in the gross amounts, the per-capita income, except in a few states, is so small as to enable the state to render but little service in the general support of the educational system. In the states having the largest endowments it will probably happen that, in time, the per-capita income, due to decreasing interest rates and to the rapid increase in school population, will slowly decrease rather than increase, notwithstanding the increase in the principal of the funds. Even though the per-capita income from these funds should continue to increase it will almost certainly happen that they will come to bear a decreasing proportion of the cost of education, due to the rapid per-capita increase in its cost. The experience of a few states in recent years may serve to illustrate this:

The past eight years in Indiana have resulted in the following changes.

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TABLE No. 17.

INDIANA PERMANENT FUNDS FOR EIGHT YEARS.

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(A combination of Tables D and H, pp. 186 and 188, in *Education in Indiana*, an official monograph prepared for the Louisiana Purchase Exposition of 1904, by the Supt. Pub. Instr. for Indiana.)

Year.	Census, 6-21 years.	Total school fund.	Per capita on census.		
			Value of all funds.	Income distributed.	Cost for schools.
1896........	734,640	$10,218,432.19	$13.90	$ .83	
1897........	749,902	10,222,792.24	13.63	.82	$10.25
1898........	754,945	10,303,184.01	13.63	.82	10.39
1899........	755,698	10,312,015.27	13.64	.82	10.83
1900........	756,004	10,359,969.05	13.70	.82	10.82
1901........	757,684	10,390,326.33	13.71	.82	11.14
1902........	761,801	10,443,885.34	13.70	.82	12.34
1903........	767,436	10,498,716.09	13.68	.82	12.90

In the State of Missouri the Constitution requires [41] and the laws of the State provide for [42] the creation of a state " public school fund, the annual income of which, * * * together with not less than 25% of the State revenue, shall be applied to the support of public schools * to be apportioned as hereinafter provided." This apportionment is to be made on the basis of the number of school-census children in the state, 6-20 years of age.[43] Since 1887, the Legislature has set apart one-third of the State revenue for the support of schools. In the next table [44] we give the income from the state school fund alone and from the state school fund together with one-third of the state's taxes,[45] in two columns, side by side. We also give the annual per-capita on census apportionments of the income from the state school fund of Kansas,[46] and the per-capita on census value of the

[41] *Constitution of Missouri, Art.* XI, Sec. 7.

[42] *Mo. Rev. Stat., 1899,* Ch. 154, Art. I, Sec. 9819.

[43] *Ibid.,* Sec. 9840.

[44] Calculated by dividing the total income by the number of census children for the years indicated. Data taken from the annual reports.

[45] Amounts taken from the *An. Repts. State Supt. Pub. Instr.,* Mo.

[46] Amounts taken from the *Bien. Repts. State Supt. Pub. Instr.,* Kan.

income from both state and county funds for the State of
Texas,[47] a state with a permanent fund about three times as
large as that of any other state in the Union.

TABLE No. 18.

INCOME FROM PERMANENT FUNDS IN THREE STATES.

Year.	*Missouri.**	*Missouri.†*	*Kansas.*	*Texas.‡*
1896	$ .19	$ .96		$2.69
1897	.19	.90	$ .80	3.00
1898	.19	.93	.88	3.02
1899	.19	.94	.85	3.41
1900	.18	1.00	.89	2.89
1901	.18	1.10	.78	3.49
1902	.18	1.20	.83	3.28
1903	.18	1.26	.79	3.69
1904	.18	1.29	.82	

* State School Fund alone.
† School Fund and one-third of the State taxes.
‡ Income from State and County Funds.

It is possible that the income from the permanent endowment
funds of Texas, due to their including about nineteen million
acres of unsold lands, may keep increasing as rapidly in propor-
tion to the total cost of education as the expansion and cost of
education itself, but this is hardly possible in any other state.[48]
In Indiana, Missouri, and Kansas, the income from the endow-
ment funds is already insignificant, and is each year bearing a
smaller and smaller fraction of the total cost of education. The
same is true generally.[49]

[47] Calculated as in the case of Missouri, from data given in *Public
Education in Texas*, a bulletin issued by the *Dept. Pub. Instr., Texas*, 1904.

[48] Much care has to be used in distinguishing between what is real in-
come from permanent funds and what is only taxation in some form,
and this is not always easy to do. Many of the state reports are unin-
tentionally somewhat misleading unless analyzed quite carefully, as the
income from permanent funds has often been supplemented by adding to
the fund something which is really a form of state school taxation. Any
statement of apportionments which shows a rapid increase during the last
ten or fifteen years needs to be scrutinized carefully.

[49] According to a table given in the Report of the U. S. Commissioner
of Education for 1902 (Vol. I, Introd., table 13. This table gives percent-

Though the total value of these permanent endowments in the different states and territories, including estimated value of lands, is about three hundred millions of dollars, the income averages less than fifty cents for each school-census child, 5-18 years of age.[50] It is easy to see from the figures which have been given, that these endowments for education, often originally intended to maintain, with local taxation, the schools of the state, are entirely insufficient, except in a few states having large endowments or few people, to relieve in any effective way the burdens of local taxation, so long at least as the income is distributed on the very democratic principle of an equal division to all communities on the basis of the number of census children to be educated. As it seems seldom to have occurred to any one to distribute the income on any essentially different basis,[51] and as most of the states have thought it desirable to increase the length of term, remove tuition fees, and help the poorer communities to maintain their schools, recourse has been had to some form of general taxation for support. By taxing all on the basis of wealth more money has been provided to be distributed to all on the basis of the number of children to be educated. The result has been the development of state and county taxation for education.

ages for each state), the proportion of the whole revenue derived from permanent funds and rentals was as follows:

United States........... 4.2%	South Central States... 14.5%
North Atlantic States... 1.0%	North Central States... 5.6%
South Atlantic States ... 3.5%	Western States......... 4.0%

The South Central group includes Texas, with 31.7%, and Oklahoma, with 25.8%, though the latter is misleading, because it includes the income from taxes as well as state and county funds.

[50] The amount varies, in the different states, from a few dollars to a fraction of a cent per census child, being less than a dollar in nearly all the states having the largest funds. See Statistical Tables in *Rept. U. S. Com. Educ.*, Vol. I, for any year.

[51] Massachusetts, a pioneer in most educational movements, first changed from the straight census to a combination basis in 1866, and first gave up the use of census entirely and began a distribution to the towns most deserving aid in 1874.

CHAPTER VI

General Taxation for Education

THE income from permanent endowment funds being insufficient, with what could be raised by local taxation, to meet the minimum demands set by the state, most states have provided for some form of state or county general taxation for the support of their public educational system. The idea underlying general taxation for education is, in a certain sense, the idea of the pooling of effort for the support of what is believed to be for the general good of all. Permissive local taxation marks the first step toward the public school idea. The people of a district agree to a tax themselves to maintain a school, paying in proportion to the value of their property and sharing in proportion to the number of children each has to send to school. Some may share who do not pay and some may pay who do not share.[1] It is a co-operative effort to maintain what is believed to be for the common good of the community.

The first step in advance from district taxation is town or township taxation, in which the people of the whole town, or township, agree to share equally in the maintenance of all the schools of the town, or township. This is a distinctly broader conception of the need and purpose of education than the district idea. If wealth were approximately evenly distributed this might be the best plan for maintaining public schools, the state requiring a certain kind of school or schools to be maintained by each community, district, town, or township. But as wealth is not even approximately evenly distributed, the maintaining of schools by such local effort, as has been shown already, involves great hardships to those least able to bear them. This

[1] The first school law in Ohio, in 1821, provided for district taxation, but it was not until 1831 that non-resident property-holders were also taxed for maintenance, and not for many years later that the "fuel tax" was shifted from the parent to the school community. Orth, S. P., *The Centralization of Administration in Ohio*, pp. 32-34.

is very well illustrated by the town system of Massachusetts and Connecticut (see Tables 7 and 8 for the inequalities between the towns of two Connecticut counties) and in part by the township system of Indiana.

The next step in the evolution of a broader conception of the need and purpose of public education, though not necessarily the next step historically, is when the people of a county agree to pool their efforts, in whole or in part, to maintain the schools of the county, the wealthier districts, or towns, or townships helping the poorer ones to maintain a system of education believed to be for the general good of the county. General county taxation represents a big advance in the equalization of the advantages and burdens of education beyond mere district, or even town or township taxation. It is at this point in the evolution of a system of general support that a number of western states have stopped.

County taxation for education not only marks a broader conception of the need and purpose of education, but also tends greatly to equalize the burdens of supporting good schools. This can be easily understood by referring to Tables No. 7 and No. 8, Ch. IV, giving data for two Connecticut counties. The extremes of taxation necessary to provide $250 a year by local taxation for each school (teacher employed), as shown by the above-mentioned tables, are 8.41 mills and 1.35 mills for Windham County, and 4.90 mills and .88 mills for Fairfield County, while the averages for the two counties would be but 2.68 mills and 1.42 mills, respectively. Even a small county tax, if it were properly distributed, assuming that there is to be no other form of aid, would greatly equalize the burdens and advantages to the towns in either county, without being a burden to any town.

This county tax plan of co-operation for school support is common throughout the west and south, but is not found in the North Atlantic or the North Central groups of states, except in Minnesota, where it is really only a compulsory district tax;[2]

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[2] "The County Commissioners shall also levy an annual tax of one mill, to be known as the local mill tax," . . . to be collected and "paid into the county treasury for the support of public schools, to be apportioned by the county auditor, who shall distribute to each school district, or portion thereof, the amount of tax collected in said district or portion of district in his county." *Rev. Stat. Minn., 1904*, Sec. 3768, as amended, 1897, Ch. 75.

in Alabama, where it is only a compulsory district and race poll
tax; [3] in South Dakota, where it is only a county poll tax for
distribution on census; [4] in North Dakota, where it is both a
a poll tax and a two-mill county tax; [5] and in Iowa, where it is a
compulsory one to three-mill tax. [6]   In extremes, the tax varies
from a purely optional tax, as in Kentucky; [7] a tax to be returned
to the districts paying, as in Minnesota; [2] a simple poll tax of one
dollar, as in South Dakota; [4] a tax required only to make up a
deficiency in the minimum term of school, as in North Carolina; [8]
a maximum permissive tax, as in Wyoming; [9] a required tax

[3] Each township, school district, and race receives back the poll taxes
paid by it. *Ala. Code of 1897*, Ch. 100, Art. 9, Secs. 3607, 3608.

[4] " The county commissioners of each county shall levy a tax of one
dollar on each elector in the county for the support of the common schools,
and no property shall be exempt from " collection, and such " shall be
distributed to the several school corporations in the county in proportion
to the number of children resident in the territory of each, over six or
under twenty-one years of age." *S. Dak. Laws of 1901*, Art. 8, Sec. 2376.

[5] " The county auditor of each county shall . . . levy a tax of one dollar
on each elector in the county for the support of common schools, and a
further tax of two mills on the dollar on all taxable property in the
county, . . . to be apportioned by the County Superintendent of Schools
among the school districts of the county." *Rev. Stat. N. Dak., 1899*, Art.
8, Sec. 722, div. 1.

[6] " The Board of Supervisors shall also levy a tax for the support of
the schools within the county of not less than one nor more than three
mills on the dollar on the assessed value of all taxable property within
the county." *Iowa Code of 1897*, Sec. 2807 ; *School Laws of Iowa*, 1902,
Sec. 2807.

[7] On a petition of twenty-five per cent of the tax-paying voters of the
county, the county judge shall order an election to determine whether the
county shall tax itself annually in any sum not over fifteen cents on the
hundred dollars, or a poll tax of not over fifty cents, or both, " for the
purpose of extending the terms of the common schools in the county."
Majority voting carries. Cities exempt. Digest of a Kentucky law, ap-
proved May 21st, 1902.

[8] " If the tax levied by the State for the support of public schools shall
be insufficient to maintain one or more schools in each school district for
the period of four months, then the Board of Commissioners of each
county shall levy annually a special tax to supply the deficiency . . . for
said period of four months or more, . . . and the funds thus raised shall
be expended . . . in such manner as the County Board of Education may
determine." *Pub. Sch. Law of N. Car., 1901*, Sec. 6.

[9] " The County Commissioners shall annually levy a tax for the support

with maximum and minimum limits stated, as in Arizona;[10] to a definite minimum tax per child to be educated, as in Oregon[11] and in California.[12] Combinations of two or more forms exist in some of the states.

A few other states have at some time in their history, levied a county tax, but have abandoned it for general state taxation. For example, Ohio levied a county school tax between 1825 and 1839, and had an optional county tax law from 1839 to 1853;[13] and Indiana had a form of optional county taxation for schools between 1849 and 1852.[14] On the other hand, some of the older northern states have never had county school taxation, having

of common schools in their county, not to exceed three mills on the dollar. . . . An additional tax of two dollars for each person between the ages of twenty-one and fifty years shall be annually levied for county school purposes." *Wyo. Ses. Laws, 1895*, Ch. 102.

[10] "The Board of Supervisors of each county shall annually . . . levy a county school tax of not less than fifty nor more than ninety cents on each one hundred dollars valuation of taxable property," . . . to be collected and "paid into the treasury of the county to the credit of the county school fund." *Laws of Arizona, 1901*, Title 17, Ch. 14, Secs. 119, 120.

[11] "The County Courts of the several counties of this State are hereby required to levy, at the same time they levy other taxes, a tax upon all the taxable property in their counties for school purposes, which shall aggregate an amount which shall be at least six dollars per capita for each and all of the children within the county, between the ages of four and twenty years, as shown by the last preceding school census. *Code of Oregon*, Sec. 3374.

[12] The County Superintendent of each county shall estimate the minimum amount of money needed by estimating five hundred dollars for each teacher and deducting the estimated State apportionment, the remainder being the minimum county school fund needed, "provided that if this amount is less than sufficient to raise a sum equal to seven dollars for each census child in the county, then the minimum amount shall be such a sum as will be equal to seven dollars for each census child in the county."

"The Board of Supervisors of each county . . . must annually . . . levy a tax, to be known as the county school tax, the maximum rate of which must not exceed fifty cents on each one hundred dollars of taxable property in the county, nor the minimum rate less than sufficient to raise a minimum amount reported by the County Superintendent." *Political Code of Cal.*, Pt. III, Ch. III, Art. XVIII, Secs. 1817, 1818.

[13] Orth, S. P., *The Centralization of Administration in Ohio*, p. 34.

[14] Rawles, W. A., *Centralizing Tendencies in the Administration of Indiana*, pp. 64-66.

passed from the district tax directly to a state school tax. A number of states have found it desirable to combine both methods.

The next step in the evolution of a broader general conception of the need and purpose of a system of public education is that in which the people of a whole state agree to pool their efforts, in part, to help to maintain a good system of schools throughout the state, the wealthier counties and cities helping the poorer ones to share the burden of maintaining that which has come to be generally recognized as existing for the common good of all. In some form or other this idea has been adopted, to a greater or less degree, by all the territories and by all but nine of the states of the Union.

In most of the states which have not yet considered it advisable to make a state appropriation for schools or to levy some form of a state school tax, the proposition has been under consideration at some time within recent years,[15] and in each of the nine states which levy no state school tax a state university is maintained.

The states making no appropriation and levying no state tax for the maintenance of public education, with the amount of income from permanent school funds, are as follows:[16]

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[15] See, for example, the following reports:

12th Bien. Rept. Supt. Pub. Instr., Kan., 1899-1900, pp. 15-16, where a two mill tax is recommended.

Bien. Rept. State Supt. Pub. Instr., Idaho, 1901-1902, p. 5, where a one mill tax is recommended.

Bien. Rept. Supt. Pub. Instr., Iowa, 1901, p. 21, where fifty dollars for each graded school teacher is recommended.

Bien. Rept. Supt. Pub. Instr., Ore., 1902, p. 235, where a tax on corporations is recommended.

[16] These figures are calculated for the years indicated by dividing the total state apportionment by the total school census on which the apportionment was made, as given in the reports of the Supts. of Pub. Instr. for the different states. Even these amounts are often larger than the actual income from invested funds, due to the addition of certain items, such as escheats, state fines, etc., to the yearly income before making the apportionment.

TABLE No. 19.

STATES WITH ONLY THE INCOME FROM PERMANENT FUNDS.

State.	Year.	Income from permanent funds.	Census on which Appt. made.	Value per census child.
Kansas............	1904	$408,130.80	497,898	$ .82
Iowa *............	1903	214,125.00	721,486	.30
North Dakota *....	1901	164,296.66	97,055	1.75
South Dakota *....	1902	357,392.09	128,392	2.78
Wyoming *........	1902	67,449.90	15,764	4.27
Colorado *........	1904	179,093.94	179,475	1.00
Idaho *...........	1902	67,614.87	59,780	1.13
Utah *............	1902	331,053.79	87,189	3.79
Oregon *..........	1904	241,234.48	143,757	1.68

* A county school tax is levied in this state.

Tennessee is usually classed as levying a state school tax, though the state one-mill tax levied is in reality only a compulsory county tax, the proceeds being " paid over to the County Trustee in the County where collected, and distributed therein according to scholastic population." [17] The income from the " permanent school fund " is also raised by general taxation, being equal to a further general tax of four and one-half cents on the hundred dollars,[18] making a total state school tax of one and forty-five hundredths mills on the dollar.

As was said in a preceding chapter, the question of levying a state tax for public education usually involved a full discussion of the whole principle of state aid for education, and was vigorously contested in the legislature and at the polls. When Henry Barnard was called from Connecticut and appointed State Superintendent of Education in Rhode Island, in 1843, for the purpose of organizing a school system for the State, his ideas as to taxation for education met with general opposition. A member of the Legislature declared that " the school act cannot be executed at the point of a bayonet," and Rhode Island citizens declared that " he might as well take a man's ox to plough his neighbor's

[17] *Tennessee Code of 1884*, Title 7, Ch. 2, Art. II, Sec. 1665; *School Laws of Tennessee*, 1895, Sec. 38.

[18] See foot-note 37, Ch. V.

field as to take a man's money to educate his neighbor's children." [19]

In some states, as for example New York, the question of a state tax for education was fought out over the question of the abolition of the " rate bill," the matter being twice (1840, 1850) submitted to the voters of the State for a decision.[20]   In other states, as for example Ohio, the matter was thoroughly discussed by the people and settled in the Legislature, resulting, in 1838, in a small annual tax, which, a few years later (1842) was changed to an annual appropriation of $150,000.[21]   In other states, Indiana being a good example, the fight was carried on even more vigorously and only settled after long and bitter discussion.

The history of the development of a state tax in Indiana is interesting and somewhat illustrative.   The first state school tax law was passed in 1836, and merely provided that the County Boards should set aside five per cent. of the gross revenue collected in the county, for state purposes, and use it for the encouragement of common schools, the same to be divided among the townships, in proportion to the amount paid by each.[22].   In reality this was nothing more than returning to the townships five per cent. of their state taxes, with the provision that they were to use it to educate their own children, but even this mild measure was denounced so vigorously that the Legislature of the succeeding winter repealed the law.   In 1848 the Legislature provided for a popular vote on the much discussed question.   The resulting campaign was most bitter and the result by no means decisive, as thirty-four per cent. of the counties and forty-four per cent. of the voters recorded themselves as opposed to the idea.[23]   The Legislature of 1849 [24] accordingly provided for a one-mill state tax, a twenty-five cent poll tax, and a tax of three per cent. on insurance premiums, the first two items to be distributed in the counties where collected, and the law not

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[19] Address of Jas. L. Hughes at the celebration of the eighty-seventh birthday of Henry Barnard, Hartford, Jan. 25, 1897; in *Rept. Conn. Bd. Educ.*, 1898, p. * 165.

[20] Sherwood, S., *The University of the State of New York*, pp. 522-523.

[21] Orth, S. P., *The Centralization of Administration in Ohio*, p. 34.

[22] Rawles, W. A., *Centralizing Tendencies in the Administration of Indiana*, p. 62.

[23] *Ibid.*, pp. 63-64.   [24] *Ibid.*, p. 64.

to be put in force in any county except by a previous affirmative vote of the electors. It was in reality only an optional county tax, and was rejected by forty per cent. of the counties. The new constitution of 1851, embodying the results of twenty-five years of discussion, though in a somewhat mildly worded form, made it " the duty of the General Assembly * * to provide by law for a general and uniform system of public schools, wherein tuition shall be free and equally open to all." [25] The Legislature of 1852 accordingly levied a state one-mill tax (10c.), to be distributed to the counties on the basis of school census, a change in the method of distribution which, at the time, created violent opposition. This change, however, from the " taxes-where-paid " basis to the school census basis of distribution marked the final establishment for Indiana of the principle that " the wealth of the state should be taxed to help educate the children of the state."

The next step in the process, and the logical conclusion of the whole matter, Indiana has not yet taken. This is equally true of a majority of the other states of the Union. The first step in the process was the division of the taxes among those who had paid them, and was nothing more than compulsory local taxation. The second and present step in the process placed all on a plane of equality by dividing the taxes equally among all, in proportion to the number of children to be educated. This was a great step in advance, and did much to equalize both burdens and advantages. It is at this stage in the process of evolution that a majority of our states are now resting. The next step in the process will be an equitable division among all, and with more direct reference to local needs and local effort.

In most states the idea of general taxation for the partial support of education is now thoroughly established, though almost everywhere it has come slowly and has been developed from small beginnings. California is a good example of this slow development, though the rate of school taxation in California has now gone beyond that of most of the other states. Each increase in the amount of tax levied has marked a broadened state conception of education, and has been preceded by much discussion, and at times by appeals from the Legislature direct to

[25] *Constitution of Indiana*, Art. VIII, Sec. 1.

the people.   The evolution of the state and county school tax
has been as follows: [26]

State School Tax—1852, a tax of 5c. on the $100 required; 1866, re-
quired tax raised to 8c.; 1874, changed to a minimum of $7.00 per census
child (in 1904 this was equal to a state tax of 17.8 cents).
County School Tax—1852, an optional county tax of not over 3c. on the
$100 made possible; 1853, maximum limit raised to 5c. for optional tax;
1855, maximum limit for optional taxes raised to 10c.; 1860, maximum
limit for optional tax raised to 25c.; 1864, maximum limit raised to 30c.,
and all counties now required to levy a county school tax of not less than
$2.00 per census child; 1866, maximum raised to 35c. and the minimum
raised to $3.00 per census child; 1879, maximum raised to 50c.; 1884, mini-
mum raised to $4.00 per census child; 1893, minimum raised to $6.00 per
census child; 1905, minimum raised to $7.00 per census child. [27]

In character the state school appropriation or tax levied by
the different states varies much. In New Hampshire, Massa-
chusetts, Rhode Island, and Connecticut, the tax is in the form
of a number of relatively small appropriations from the State
Treasury to supplement the income from the state school fund,
and is used to help the poorer towns to maintain their schools, [28]
to maintain high schools or pay high school tuition, [29] to em-
ploy a superintendent of schools, [30] to maintain evening schools, [31]
and in Connecticut an additional grant to all towns of $2.25 per
census child is made direct from the State Treasury. [32] In North
Carolina $200,000 is granted annually from the State Treasury,
by a new law, one-half to be divided equally on census and the
other half to be used in helping poor districts to maintain a four
months' school. [33]   In New York, [34] Pennsylvania, [35] and Georgia, [36]

[26] Swett, John, *History of the Public School System of California*, pp.
12-65, for abstract and summary of legislation to 1876; and the *Repts. of
the Supts. of Pub. Instr. of Cal.* since 1876.

[27] *California Acts of 1905.*

[28] New Hampshire; Massachusetts; Connecticut.

[29] New Hampshire; Massachusetts; Rhode Island; Connecticut.

[30] New Hampshire; Massachusetts; Rhode Island; Connecticut.

[31] *Gen. Stat. Conn.*, Sec. 2148.

[32] *Gen. Stat. Conn.*, Sec. 2257.

[33] See foot-note 5, Chapter XIII.

[34] "There shall be raised by tax, in each year, upon the real and per-
sonal estate of each county within the State, such sum as the Legislature

large sums are appropriated each year by the Legislature to as-
sist in maintaining the state's public school system. The plan of
definite appropriations provides a fixed annual sum, but it is defec-
tive in that this sum does not necessarily bear any direct rela-
tion to the changes, from year to year, in the wealth of the
state or in the number of children to be educated.[37]

The plan in use in most of the states is that of a definite rate
of taxation, often known as the "mill rate," the amount in
mills varying in the different states using the plan from seven-

shall annually determine necessary for the support of common schools in
the State." *The Consol. Sch. Law of N. Y.*, Title II, Art. 1, Sec. 1.

For the year 1901-02 the entire State appropriation to the Department
of Public Instruction for all purposes was $4,625,700. *Rept. Supt. Pub.
Instr., N. Y.*, 1902, I, p. ix.

[35] As required by Art. X, Sec. 1, of the State Constitution of Pennsyl-
vania. See foot-note 38, Ch. V.

For the year ending June 1, 1903, the State appropriations were as fol-
lows: For common schools, $5,525,000. This is equal to about five dollars
per census child, 6-16 years of age. $25,000 was also appropriated for aid
to township high schools, and $200,000 for normal school tuition.

[36] For the year 1902 the amount appropriated by direct levy was $800,-
000, and in addition poll taxes, rental of the Western and Atlantic railway,
licenses, certain fees, and specific taxes, brought the State's appropriation
up to a total of $1,538,955, or $2.31½ per census child 6-18 years of age.
See *Rept. Dept. Educ. Ga.*, 1902, p. 26. Also see *Georgia Acts of 1887*, p.
79, or *Compiled School Laws of 1903*, Pt. V, Sec. 38.

[37] This may be illustrated by comparison of conditions in both states
making large legislative appropriations for education.

In New York, previous to 1902, the legislative grant was in the form of
a state tax of a fraction of a mill, the fraction being determined by the
Legislature each year. Since 1901 the legislative grant has been in the
form of a direct appropriation from the Treasury. There has been a
constant tendency toward a shrinkage in the appropriation. During the
six years between 1895 and 1901 the total state tax appropriated to the
Department of Public Instruction increased only 1.9%, while the wealth of
the state increased 27%, the total population of the state increased 21%,
and the amount paid for teachers' salaries increased 66%. *Rept. Supt. Pub.
Instr., N. Y.*, 1902, I, p. ix.

In Pennsylvania, but not including the city of Philadelphia, during the
eight years between 1895 and 1903 the state appropriation for schools in-
creased 5%, the number of pupils in the schools increased 9.8%, the num-
ber of teachers employed increased 22%, and the amount paid for teachers'
salaries increased 38.1%. Data for valuation is not at hand. Calculated
from data given in a comparative table in the *Rept. Supt. Pub. Instr., Pa.*,
1903, pp. 30-31.

tenths of a mill in Wisconsin,[38] to a required three mills in New
Mexico.[39]   A required state school tax of one mill to one and
one-half mills is a common rate.   New Jersey nominally levies
an annual state school tax equal to two and three-quarter mills,[40]
but as ninety per cent. of the amount collected is returned to the
counties " in proportion to the amount of taxables * * in said
counties," the tax is to a very large extent only a compulsory
county school tax.

A few states appropriate a definite portion of the state's
revenues of each year as an annual state school tax.   The Mis-
souri constitution requires that " not less than twenty-five per
cent. of the State revenue * be applied annually to the sup-
port of schools," [41] and since 1887 one-third of the ordinary State
revenue has been appropriated to the public schools.[42]   The
Louisiana constitution requires that " not less than one and one-

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[38] " There is appropriated annually to the common school fund income
an amount equal to seven-tenths of one mill for each dollar of the assessed
valuation of the taxable property in the State, . . . to be divided annually
as follows: $200,000 from the license fees, or taxes paid by said corpora-
tions, and the balance from a tax which shall be levied on all taxable
property." *Wis. Laws of 1903*, Ch. 313, amending Sec. 1072a, *Statutes of
1898*, where the rate was one mill.   This reduction was made because of
the increase in property valuation resulting from the work of the Wis-
consin State Tax Commission.

[39] The Territorial Auditor is required to levy annually a tax of not
over three mills, to be paid into the Territorial Treasury. *N. Mex., Com-
piled Laws of 1897*, Title XI, Sec. 1537.

[40] " A state school tax shall be annually assessed, levied, and collected
upon the taxable real and personal property in the State. . . . Said tax
shall be such an amount as will make, when added to the amount appro-
priated as aforesaid (100,000), a sum equal to two and three-quarter mills
on each dollar. . . . The State Comptroller shall apportion said tax and
appropriation among the several counties in proportion to the amount of
taxable real and personal estate of said counties." . . . *N. J. Laws of
1903*, 2d Sp. Sess., Ch. I, Art. XVII, Sec. 177.
" Ten per cent of the full amount of the State school tax annually raised
shall be known as a reserve fund, and shall . . . be apportioned among
the several counties by the State Board of Education, equitable and justly
according to its discretion." *Ibid.*, Sec. 179.

[41] *Constitution of Missouri*, Art. XI, Sec. 7.

[42] *55th An. Rept. Supt. Pub. Instr., Mo.*, 1904, pp. 32-33.   For 1903-04
this amounted to (p. 65) $1,098,378.82, or $1.11 per census child in the
state, as against 11c. income from the permanent funds.   See Table No.
18, Ch. V, for the relative income for the past nine years.

quarter mills of the six mills of tax levied and collected by the state " [43] shall be added to the annual state school funds. South Carolina appropriates for education the state's net income from the licensing and sale of liquors under the dispensary system.[44] Michigan, since 1881, has annually added the excess from all specific taxes on railroad, express, insurance, and telephone companies, etc.[45] These taxes have not only paid the annual interest on the primary school funds, but in 1902-03, $1,575,970.41 of the amount of school fund apportioned to the counties by the State Superintendent came from this source. Virtually the whole apportionment of $1,973,784.94 came from the surplus of specific taxes. The income from the primary school funds alone has averaged about forty-five cents per census child since 1842, but the addition of the surplus of specific taxes has made the state per-capita apportionment increase very rapidly in recent years.[46]

Another plan in use in California [47] and Washington [48] is

[43] *Constitution of Louisiana*, Art. 254, Sec. 1.

[44] " All net income derived by the State from the sale of liquors in this State, under the dispensary law, shall be apportioned among the various counties of this State, for the benefit of the common schools, in proportion to the deficiencies existing in the various counties of this State, after the application of the three mill (county) tax and the poll tax, to run the public schools for the time fixed in Sec. 1233 " (three months), and any surplus, after deducting $5,000 for institutes, " shall . . . be apportioned among the counties in proportion to the enrollment in the public schools." *South Carolina Code of 1902*, Sec. 1235.

[45] For a full statement as to the income from these taxes see *Rept. Supt. Pub. Instr. for Mich.*, 1903, pp. 24-31.

[46] This may be seen from the following census apportionments. The addition of the surplus of specific taxes began in 1881.

1880.....$ .40	1886......$1.36	1892......$1.43	1898......$1.40
1881...... 1.06	1887...... 1.16	1893...... 1.61	1899...... 1.50
1882...... 1.24	1888...... 1.15	1894...... 1.53	1900...... 1.50
1883...... 1.43	1889...... 1.39	1895...... 1.29	1901...... 2.05
1884...... 1.30	1890...... 1.30	1896...... 1.23	1902...... 2.52
1885...... 1.24	1891...... 1.42	1897...... 1.31	1903...... 2.70

From a table in *Rept. Supt. Pub. Instr. for Mich.*, 1903, p. 30.

[47] " The State Controller must, . . . each year, estimate the amount necessary to raise the sum of seven dollars for each census child, between the ages of 5 and 17 years, in the State, which shall be the amount necessary to be raised by an *ad valorem* tax for school purposes during the year." *Polit. Code of Cal.*, Sec. 443.

[48] The State Board of Equalization shall annually " levy a tax that

that of levying whatever rate of taxation is necessary to produce a certain amount each year per census child.   This plan was in use in New Jersey until recently, the amount raised being $5.00 per census child, but was abandoned in favor of a mill rate because of constant irregularities in the school census.

The advantages of a general state school tax over a county tax are the same as the advantages of a county school tax over a town or township tax, and as these in turn over exclusive district taxation.   By the partial pooling of effort on the part of the people of an entire state, a longer school term, better teachers, and a generally higher standard of education can be had throughout the entire state than would be the case if each county were left entirely to itself.   As this has been shown on a preceding page to be true for a county tax, the application being made in Table No. 7 and No. 8, to the towns of two Connecticut counties, so, in the same way, it may be shown to be true for a state tax when applied to all the towns and counties of the same state.   By reference to Table No. 6, giving data for each county of the State of Connecticut, it will be seen that a general state tax of 1.75 mills would alone produce $250 for every teacher in the State, assuming no delinquents, while the different counties vary from 1.42 mills to 2.97 mills to produce the same amount.   By such a process, three counties, which have a higher valuation than the average, would help five counties, which have a lower valuation than the average, to maintain their schools. A state mill tax, levied on all the towns in proportion to valuation and distributed to all the towns with some reference to the effort made by the towns and the number of schools (teachers) which it is necessary for each to maintain, would be a great boon to many poor towns and no hardship on the wealthier ones. The fulfillment of certain obligations on the part of the towns in return for such aid could and should be demanded by the state.

shall be sufficient to produce a sum which, when added to the estimated amount of money to be derived from the interest on the State permanent school fund for the current fiscal year, shall equal ten dollars for each child of school age residing in the State as shown by the last report of the several County Superintendents to the Superintendent of Public Instruction: Provided that said tax shall not exceed five mills on the dollar." *Wash. Code of Pub. Instr. of 1897,* Title III, Ch. 6, Secs. 111, as amended by *Ses. Laws of 1901,* Sec. 16, p. 380.

The advantages of a state school tax over a county school tax may be shown further by a study of Table 10, Ch. IV, comparing the first eight counties, in alphabetical order, of the State of Wisconsin with the County of Milwaukee and the average of the State; and by Tables No. 11, 12, 13, and 14, giving similar data for Missouri, Kansas, California, and Indiana respectively.

Even better than these tables is a study of the different counties of the State of Washington, a state with an average density of population (1900) of 7.7 persons to the square mile.

It will be remembered that the law which we have quoted (footnote 48) requires an annual state school tax to be levied which will produce, with the income from the state permanent school fund, " a sum which * shall equal ten dollars for each child of school age residing in the State." Disregarding the income from the state permanent school fund, and assuming that this tax is to be a county school tax instead of a state school tax, we find, by calculating, that the rate in mills which would be required to be levied in each county to produce ten dollars per census child, assuming no delinquents and no expense for collection, would be as shown in the following table:

TABLE No. 20.

STATE AND COUNTY TAX COMPARED FOR THE COUNTIES OF WASHINGTON.

(Calculated from data given in the *17th Bien. Rept. Supt. Pub. Instr. of Wash.*, 1904, pp. 32-33, 42-43.)

County.	Assessed valuation of all property 1904.	No. census children 5-21 years, June, 1904.	Average valuation per census child, 1904.	Rate of tax required to produce $10.00 each.
Adams............	$4,468,678	3,095	$1,444	6.9 mills.
Asotin............	1,463,143	1,780	822	12.2 "
Chehalis..........	7,679,203	5,125	1,498	6.6 "
Chelan...........	2,249,060	2,377	946	10.5 "
Clallam...........	1,939,172	1,488	1,303	7.7 "
Clarke............	5,138,766	5,234	963	10.4 "
Columbia.........	3,630,574	2,223	1,633	6.0 "
Cowlitz...........	3,705,910	2,778	1,334	7.5 "
Douglas..........	5,473,936	3,256	1,681	5.9 "
Ferry.............	2,037,226	699	2,915	3.4 "
Franklin..........	1,180,821	687	1,732	5.8 "
Garfield..........	1,978,970	1,419	1,394	7.1 "
Island......,....	884,612	726	1,218	8.2 "
Jefferson.........	1,965,595	1,349	1,457	6.8 "
King *...........	72,468,878	36,195	2,002	5.0 "
Kitsap...........	2,005,116	3,068	653	15.4 "
Kittitas..........	4,418,442	3,557	1,242	8.0 "
Klickitat.........	2,924,578	2,583	1,132	8.8 "
Lewis............	4,978,521	6,489	767	13.0 "
Lincoln..........	10,573,264	5,562	1,901	5.2 "
Mason...........	1,335,285	1,084	1,232	8.1 "
Okanogan.........	865,598	1,838	471	21.2 "
Pacific...........	2,383,733	1,956	1,217	8.2 "
Pierce †..........	32,952,454	20,637	1,597	6.2 "
San Juan.........	905,461	966	937	10.7 "
Skagit...........	6,159,201	5,620	1,094	9.2 "
Skamania.........	528,696	403	1,312	7.6 "
Snohomish........	10,890,794	10,812	1,009	9.9 "
Spokane ‡........	30,121,491	20,410	1,476	6.8 "
Stevens..........	3,567,374	4,808	742	13.5 "
Thurston.........	4,988,261	3,858	1,293	7.7 "
Wahkiakum.......	443,980	793	560	17.8 "
Walla Walla......	10,836,425	5,684	1,906	5.2 "
Whatcom.........	10,687,679	9,918	1,075	9.2 "
Whitman..........	13,398,510	10,675	1,255	8.0 "
Yakima...........	8,254,757	7,195	1,147	8.7 "
The State........	$279,493,164	196,347	$1,423	7.0 "

*Includes the city of Seattle.

†Includes the city of Tacoma.

‡Includes the city of Spokane.

It will be noticed that the average state rate of tax required to produce ten dollars per census child is seven mills, while the law provides that "said tax shall not exceed five mills." [48] As not over five mills can be levied this would have produced, on the average valuation of 1904, and again neglecting the income from the state permanent school fund, only seven dollars and twelve cents per census child. While this would change the various required county rates by reducing each of them two-sevenths, it would not change them relatively; the rate in Okanogan County, for example, being 6.26 times the rate in Ferry County and 3.07 times the average for the State, whatever the amount required to be raised.

The equalizing result of a state tax is evident from the last column of figures. Twelve counties help to equalize the burden of support in twenty-four other counties. It is merely the pooling effort on a large scale to secure a uniformly high standard of education throughout the state. Instead of a township, or a county, the people of the whole state unite for a common result. All are then taxed by the state at a uniform rate (so many mills) and all share in the income from such taxation at a uniform rate (number of children in daily attendance at school).

This is the logical conclusion of the theory that " the wealth of the State should help to educate the children of the State," all being taxed equally in proportion to their wealth and sharing equally in proportion to the actual number of children who receive instruction. The actual or relative amount of aid which the state shall give by such taxation is an entirely different question; the first involves an educational principle, the other is a matter of educational fiscal policy. All inequalities are not obliterated, of course, for a local town or district tax must still be raised on the varying valuations, but the state school tax is uniform on all and is a tendency toward the equalization of both burdens and advantages. The increase in tax rate on the wealthier communities is small compared with the decrease of tax rate on the poorer communities. The result is that a much more general uniformity in the educational standard can be enforced throughout the state as a whole than would be possible under the county or township system.

The equalizing effect of a state and a county school tax combined is best illustrated by the State of California. The develop-

ment of each of these taxes was given on a preceding page. The state school tax of $7.00 per census child was equal to a general state tax of 1.78 mills. This was paid by all. The county school tax of not less than $6.00 per census child (this is to be $7.00 also, beginning 1905) required the following tax rates during the year 1904 in the fifty-seven different counties of the state.[49]

	Rate of tax, 1904.	*Counties.*
Under 1 mill		1
1 mill or over but less than 1.5 mills		3
1.5 mills or over but less than 2.0 mills		8
2.0 mills or over but less than 2.5 mills		18
2.5 mills or over but less than 3.0 mills		12
3.0 mills or over but less than 3.5 mills		10
3.5 mills or over but less than 4.0 mills		2
4.0 mills or over but less than 4.5 mills		0
4.5 mills or over but less than 5.0 mills		2
5.0 mills		1

Average rate of all counties, 2.48 mills.

The highest rate of tax paid in any county (Mono) was 5.0 + 1.78 = 6.78 mills, while the lowest rate paid in any county (San Francisco; county tax only) was .64 + 1.78 = 2.42 mills. In but five of the fifty-seven counties did the total state and county school tax exceed 5.25 mills, with an average of about 4.25 mills.

The great equalizing effect of this form of tax is better understood when it is stated that this amount practically maintained all the elementary schools, the only additional taxation required being for new buildings or repairs, for additional facilities for town or city schools, and for high schools. Under the apportionment plan in use [50] every one-teacher school in the state with less than twenty census children received an initial teacher grant of $400, and if with over twenty and less than seventy census children an initial teacher grant of $500, and then an additional attendance grant of about $10 for each pupil in average daily attendance at the school the preceding year. Beginning with July, 1905, these distinctions between schools are to be abolished, and a uniform teacher grant of $550 for every seventy census children or fraction thereof is to be made to all schools in the state, regardless of size.

[49] *21st Bien. Rept. Supt. Pub. Instr., Cal.,* 1903-04, p. 181.

[50] See Chapter XII, foot-notes 22, 23, and 24.

This wise taxation and apportionment plan secures to every school, whether in the valleys, in the mountains, on the edge of the desert, or in a wealthy suburban community, a common minimum sum. The amount received per school varies from $500 to $1200, a common sum being from $750 to $850. This has ensured not only a good teacher in each school but a quality of teacher in the profession which could not have been secured on the sums paid in most other states. The main reason why the schools of California have made such rapid progress and stand so high is that there has been a pooling of effort on a large scale by the people of the state, and this has resulted in an equalization of advantages as well as of burdens.

Whether or not this general taxation for the support of education has gone too far in some states is not a question which the writer attempts to discuss here. Our concern is with the principle rather than with the percentage. Different states have different plans and different theories as to the method of school support. With these the writer is concerned only to the extent that these plans serve, or can be made to serve, to equalize educational advantages by relieving excessive burdens for support, and by stimulating communities to do more than they would do unaided. To this end the writer holds that some form of state aid is very desirable, and that some form of state or county aid is a practical necessity. Of these two forms of general aid for education, state or county, the state form is the more desirable because it more easily and evenly equalizes the burden of maintaining what is for the general good of all, and because it makes it possible for the state to demand higher educational standards on the part of all communities than can be done under any other form of support. This can be done better, too, if the amount of general aid is relatively large.

That the state should distribute whatever aid it gives in such a manner as will not destroy the local taxing instinct may be considered as a wise and generally accepted educational principle, but the state ought not to allow the "fear of weakening local effort and local interest in the schools" to serve as an excuse for doing little or nothing to help poor and over-burdened communities to maintain their schools and to meet the demands set by the state. What the state is primarily interested in, educationally, is the securing of the advantages of as good an educa-

tion as is practicable to each child of the state, and in doing this the important consideration is the interests of the child.

The first great step in the attempt to equalize educational advantages has been the recognition on the part of the people of the state's interest in and responsibility for the education of its children. This recognition has been marked by the establishment of some form of general taxation for the partial support of the system of public education. The idea of a general property tax for schools having been bitterly contested for in most states, and being new to the generation which instituted it, it was only natural that the chief idea relating to the distribution of the income from such taxation should be that it should be divided with absolute impartiality to all. The constitutions of more than one-fourth of the states and the laws of thirty-three of the states and territories of the Union accordingly provide for a per-capita or census distribution to the counties [51] of all state school funds and taxes, and nineteen have further provided that, after adding any county funds, it shall be so distributed to the townships and districts. On the other hand, more than one-half of the state constitutions are either silent on the question or leave the matter to the legislatures to regulate by a general law. Few states have incorporated in their constitutions so wise a provision on this subject as have the states of Connecticut [52] and Nebraska. [53]

The second great step in the attempt to equalize educational advantages will be taken when the people come to realize that a division with absolute impartiality to all is not necessarily an equitable division, and that it does not serve the purpose for which these funds and taxes were provided as well as a distribution which is proportional to the needs of a community

[51] See Table No. 37, Chapter IX.

[52] " The fund, called the School Fund, shall remain a perpetual fund, the interest of which shall be inviolably appropriated to the support and encouragement of the public or common schools throughout the State, . . . and no law shall ever be made authorizing said fund to be diverted to any other use than the encouragement and support of public or common schools, among the several school societies, as justice and equity shall require." *Constitution of Conn.*, Art. VIII, Sec. 2.

[53] " Provision shall be made by general law for an equitable distribution of the income of the fund set apart for the support of common schools, among the several school districts of the State." *Constitution of Neb.*, Art. VIII, Sec. 7.

and the efforts which it makes to help itself. About one-third of the states have made some advances along this line.

The third great step in the attempt to equalize educational advantages will be taken when the state recognizes that it is its duty to help new and desirable forms of education to gain a foot-hold and become established and to assist necessitous communi-ties by special grants, and, if necessary to do so because the fund at hand is small, to withdraw all aid for " common schools " from those larger and wealthier communities which are able to care for themselves. The state would then devote a portion at least of its energies to helping poor communities and to subsidizing such desirable new forms of education as high schools; technical edu-cation; manual training in graded schools; parental schools; kindergartens; vacation schools; skilled supervision, both state and local; agricultural instruction; the enforcement of minimum salary laws; etc. Disregarding state aid for high schools, but ten states have made any beginning in this direction, and noth-ing of particular note has been done in more than five.

We have so far dealt with only the first part of our subject, viz., the inequalities in ability to properly maintain a good school which have come to exist and do exist, and the various means which the states have created to be used in relieving existing burdens. Permanent funds and the income from gen-eral taxation are the means which the states have at hand for use in any attempt at the equalization of either the burdens or the advantages of education. These means created, the problem now before the state is how to distribute the income so as best to accomplish this purpose. In the chapters which follow we shall deal with this question at some length.

Just as there has been a certain general evolution in the theory of taxation for public schools, as the people of a state have come to have a broader conception of the purpose and need of a system of public education, so, similarly, there has been a cer-tain general evolution in the theory as to the best method of dis-tributing the income from the permanent funds and from the general taxation established. Just as the different states represent different evolutionary stages in the theory of taxation for educa-tion, so, similarly, different states represent, in a general way, different evolutionary stages in the theory as to the distribution of the income from funds and from taxation for education.

Naturally all states have not passed through and will not in the
future pass through the same evolutionary stages in either taxa-
tion or distribution, nor will the ultimate goal be the same
for each. Economic conditions, educational conditions, the poli-
itcal units used as a basis for distribution, and the amount and re-
lation of the state funds to the other funds differ in different
states, and these require that any equalizing theory be worked
out and adjusted to the actual conditions existing.

Notwithstanding these differences in conditions certain general
principles ought to hold true with reference to the distribution of
funds for educational purposes. Certain bases serve better for
the distribution of funds than others, and certain bases give a
more generally just result than others because they tend to re-
lieve excessive burdens better, to equalize the advantages of edu-
cation, and to place a premium on more efforts which communi-
ties ought to be encouraged to make for themselves.

The earlier forms of distribution were naturally those of
perfect equality to all, and it is at this stage that most states are
now standing. The logical conclusion of this process of equali-
zation is a system of distribution which will have reference to
existing inequalities, which will tend to equalize better the ad-
vantages of education, which will place a premium on the ef-
forts made by localities to help themselves, and which will serve
to stimulate communities to introduce new and desirable forms
of educational effort.

We shall first examine the various single bases for distribu-
tion now in use or which may be used, with a view to setting
up certain educational standards which ought to be applied in
formulating any plan for distributing aid or for improving any
existing plan. This will naturally involve a discussion and for-
mulation of the theory which should control in the distribution of
the income from all forms of general aid for education. In doing
this we shall first examine the various single-basis types of dis-
tribution, such as census, enrollment, etc., with a view to as-
certaining the merits and defects of each, and for the purpose of
formulating certain theoretical standards. We shall then apply
these standards in the consideration of the combination types of
distribution, by which we mean the use of two or more single
bases in combination to secure a better result, and in the con-
sideration of the equalization type of distribution, by which we

mean those definite and conscious attempts on the part of the state to equalize the burdens and advantages of education to all by distributing a portion at least of its funds with direct reference to needs and burdens borne.

The various single bases of distribution may be classified, for convenience, into the following groups and sub-groups, arranged in an approximate order of merit.

I. Distribution with reference to taxes or wealth. (Chapter VII.) Apportionment of aid to the different school units on the basis of:

    (a) The amount of taxes paid by each.

    (b) The relative valuation of the property of each.

2. Distribution with reference to population. (Chapter VIII.) Apportionment of aid to the different school units on the basis of:

    (a) The total population of each.

3. Distribution with reference to pupils and schools. Apportionment of aid to the different school units on the basis of:

    (a) The number of children of school age. The School Census basis. (Chapter IX.)

    (b) The number of children enrolled in the school. (Chapter X.)

    (c) The average membership of the school. (Chapter X.)

    (d) The average daily attendance at the school. (Chapter XI.)

    (e) The aggregate days of attendance at the school. (Chapter XI.)

    (f) The school district or the teacher as a basis. (Chapter XII.)

4. Distribution with reference to effort and need. (Chapter XIII.) Apportionment of aid to certain school units with direct reference to the needs and burdens borne.

CHAPTER VII

Distribution with Reference to Taxes and Wealth

apportionment on the basis of the amount of taxes paid

By establishing schools and making provision for some form of general taxation for education, the state has assumed public education as one of its functions as a state. As soon as an income from funds or general taxation for education has been provided for, it is of course necessary that the state establish some basis for its distribution to the schools of the state. In the evolution of a rational system for the granting of state aid for education, a distribution based on the amount of taxes paid, whatever may be its usefulness in some particular locality, represents one of the lowest and most primitive methods. In so far as a state uses this basis of distribution it cannot be said to have a state system of education at all, but only a compulsory local system.

So far as the tax, the income from which is distributed on this basis, is supposed to be a general tax, and not merely a compulsory local tax, this form of distribution is one of the worst that could be devised. It belongs, in the evolution of the theory of distribution, to a period when the idea of general taxation was new and not yet firmly established, and when the people had not yet made " the support and maintenance of an efficient system of free public schools throughout the State " [1] a required duty of the Legislature of the state. A generation ago it often happened that communities, if they were to be subjected to compulsory taxation for education, demanded that the money they paid should be given back to them to be used to maintain their own schools. It was a natural feeling at a time when the idea of a state system

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[1] *Constitution of Texas*, Art. 7, Sec. 1.

of education supported by general taxation was an idea more in the minds of a few leaders than in the minds of the masses of the people. The state compulsory township taxation law enacted by the Indiana Legislature [2] in 1836, directing that five per cent. of the state revenue collected in each county be retained and divided among the townships for the use of the schools thereof, in proportion to the amount each had paid, and the similar optional county tax law [3] of 1849, are examples of this early feeling. Of these two laws, the law of 1849, providing that the income from the ten-cent state school tax be retained in the county where paid, to be used for the schools of the county, was a decided advance toward equalization over the law of 1836, which required the income to be further divided up among the various townships in proportion to the amount each had originally paid. The law of 1852, carrying out the provision of the new constitution of 1851, and providing for a general state school tax of ten cents on the one hundred dollars,[4] the income to be distributed to the counties on the basis of the school census, was a further and a decided advance toward the equalization of both the burdens and the opportunities of education.

As a means of general and uniform compulsory local taxation such a plan of distribution may possess certain local advantages, but aside from this it is a very undesirable single basis for distribution because it in no way tends to equalize either the burdens or the advantages of education and because it has no educational significance. The more property a community has with which to educate its children the more it will receive under such a plan of distribution; similarly the less it has the less it will receive. From the point of view of general taxation for education such a plan, so far as its use extends, is directly opposed to the generally accepted principle that "the wealth of the State should help to educate the children of the State."

Whatever the name of the tax collected, it cannot be considered in reality as more than a general and compulsory form of taxation for the smallest unit to which the tax is distributed.

[2] Rawles, W. A., *Centralizing Tendencies in the Administration of Indiana*, p. 62.

[3] *Ibid.*, p. 64.

[4] *Ibid.*, p. 67.

The county " local mill tax " of Minnesota,[5] for example, can only be regarded as a compulsory district tax, and the Tennessee state one and a half mill tax [6] and the state poll-tax of one dollar as only compulsory county school-taxes. While these taxes no doubt prove valuable as now distributed, in that they compel a local tax, it is practically certain that better results could be obtained with the same money if distributed on some better basis than to the units paying the taxes.

The inequalities arising from an apportionment of school funds on the basis of the amount of taxes paid may be seen by an inspection of the columns marked "Average valuation per census child " and "Average valuation per school (teacher employed)" in Tables 10-14, Ch. IV, which give the average value of the taxable wealth per child of school age for a number of counties in Wisconsin, Kansas, Missouri, California, and Indiana. A general state one-mill tax distributed to these counties on the basis of the amount of tax paid would produce very unequal and very unjust results.

This may be illustrated quite well by taking the case of the State of Florida, where a state one-mill tax for schools is required by the state constitution [7] to be levied on all the taxable property of the state, but instead of being distributed on taxes paid, as is done in Tennessee, it is distributed on the basis of the average daily attendance in the school.[8] Levied on all on the basis of wealth, the distribution is made on the basis of the number of children who actually receive instruction in the public school each day. The biennial reports of the State Superintendent of Public Instruction for Florida contain a statistical table for each school year showing the amount of this state one-mill tax assessed to each county, the amount actually collected, the per cent. collected, and the amount returned to each county (on average daily attendance) for every dollar actually paid by it. Taking the statistics for the school year 1901-02 we find that of the forty-five counties of the state, twenty-seven received back less than they paid, and eighteen received more, the amounts varying as follows:

[5] *Minn. Rev. Stat., 1894*, Sec. 3768, as amended in 1897, c. 75.

[6] *Tenn. Code of 1884*, Title 7, Ch. 2, Art. II, Sec. 1665.

[7] *Fla. Constitution of 1885*, Art. XII, Sec. 6.

[8] *Fla. Constitution of 1885*, Art. XII, Sec. 7, as amended in 1894.

TABLE No. 21.

(Taken for the school year, 1901-02, for each of the forty-five counties.
From the *Rept. Supt. Pub. Instr., Fla.,* for 1902, Table XVI, p. 112.)

Gadsden..........$3.11	Baker..............$1.08	Franklin..........$ .67
Madison.......... 2.13	Santa Rosa....... 1.06	Polk.............. .67
Washington....... 1.90	Hamilton......... 1.04	Hernando......... .66
Jefferson.......... 1.86	Levy .... .94	Nassau........... .66
Holmes........... 1.84	Clay.............. .87	Volusia........... .66
Jackson.......... 1.78	Calhoun.......... .79	Hillsboro......... .62
Walton........... 1.70	Monroe........... .79	Lake .... .58
Alachua.......... 1.51	Sumter........... .77	Orange........... .57
Leon 1.51	Manatee......... .76	Osceola........... .54
Lafayette......... 1.35	Duval .... .74	Liberty........... .53
Suwannee......... 1.34	Pasco............. .70	Citrus............ .48
Columbia......... 1.24	Putnam........... .69	St. Johns......... .46
Marion........... 1.24	Taylor............ .69	Brevard.......... .38
Wakulla.......... 1.24	De Sota.......... .68	Lee............... .35
Bradford......... 1.13	Escambia......... .67	Dade.............. .31

Gadsden and Madison are two relatively small counties in the
northwestern part of the state, densely populated, but with no
city of any importance; Dade and Brevard are two large counties
along the east coast of southern Florida, have but few school
children, but contain a large proportion of the famous winter
resorts of the state. Lee county is similarly situated, just west
of Dade county, but on the Gulf coast. The assessed wealth of
Dade county was two and a half times that of Gadsden, while the
total school enrollment of Gadsden county was three times that
of Dade. It can easily be seen that the present basis of dis-
tribution employed in Florida is far more just and is a much
greater force in the direction of the equalization of the burdens
and the advantages of education than would be the case if the
distribution were made on the basis of taxes paid.

A similar table could be constructed for New York state for
the year 1901, the last year in which a definite state school tax
was levied. The Report of the State Superintendent of Public
Instruction [9] for the year 1902 gives the amount of tax paid by

[9] *Rept. Supt. Pub. Instr., New York,* 1902, Vol. I, Exhibit 1, statistical
table No. 2, p. 4.

each county and the amount received in return, the distribution being made chiefly on the bases of the number of teachers employed and the total population. For the first ten counties of the state, as arranged alphabetically, and for the city of Greater New York, the amount received in return for every dollar paid was:

TABLE NO. *22.*

CERTAIN NEW YORK COUNTIES: AMOUNT OF STATE SCHOOL TAX RETURNED FOR EACH DOLLAR PAID, BASED ON THE TAX LEVY AND APPORTIONMENT FOR 1901.

Albany...............$1.01	Chemung.............$1.68
Allegany.............. 3.30	Chenango............. 3.01
Broome............... 2.03	Clinton............... 4.36
Cattaraugus........... 3.15	Columbia.............. 1.53
Cayuga............... 1.81	Greater New York..... .46
Chautauqua........... 2.81	

In Tennessee a similar condition is found. Taking the statistics for the different counties of the state [10] and comparing the state apportionment of the income from the state school fund and the surplus remaining in the State Treasury at the end of the year, which is made on the basis of the school census, with the income from the state taxes, which is retained in the county where paid, we get ratios for the two of from 1 to 1, to 1 to 9, the average for the state being 1 to 4½.

APPORTIONMENT ON THE BASIS OF PROPERTY.

From an educational point of view this is a slightly better basis for distribution than taxes-where-paid. It is better in that it insures a certain amount of money for the education of the children without regard to whether their parents have been able to pay their taxes or not. One year ninety-five per cent. of the taxes of a district may be paid and during another year only eighty-eight per cent., but, if the valuation and rate of tax remain unchanged, the same, instead of a variable amount, will go to the school district each year.

From an educational point of view, however, valuation is as undesirable a single basis for the apportionment of funds as is taxes-where-paid. Neither basis contains any educational ele-

[10] *Tennessee School Report,* 1904, Table XIII.

ment or offers any educational incentive. As a single basis for
the distribution of funds valuation is not used at present by any
state. Pennsylvania [11] distributes one-third of the state appro-
priation for common schools on the basis of valuation, and New
Jersey [12] distributes ninety per cent. of the two and three-quarter
mill state tax to the counties on this basis,[13] but in both states
a combination type of distribution exists which tends to counter-
act the bad effects arising from such a method.

If the per-capita wealth of every county or district were the
same, then valuation, from a financial point of view, would be a
just basis of apportionment for the income from any permanent
funds or compulsory tax established by the state. But even in
this hypothetical case, the method used alone, though financially
just, would be undesirable from an educational point of view be-
cause its basis is purely financial and because it places no premium
on educational effort of any kind. This placing of a premium on
educational effort ought to be made a prominent feature of any
state plan for the apportionment of school funds. The valuation
basis, even when used in combination with one or more other
bases, must be justified by expediency or some peculiar form of
state fiscal policy rather than on educational grounds. It is the
children to be educated rather than the possession of wealth
by their parents which ought to be the important factor in any
system of distribution.

[11] Act of July 15, 1897, *Pa. Pub. Laws*, p. 271, *School Laws of 1903*,
Secs. 182-184.

[12] *N. J. School Law Act of 1903*, Art. XVII, Secs. 177-179.

[13] Neither the New Jersey nor the Pennsylvania plans are simple dis-
tribution on valuation plans, a distribution on valuation being but a part
of a combination type plan of distribution. Whatever may be its theoret-
ical defects, the New Jersey plan of using valuation as a partial basis of
distribution has certain advantages. It is practically a compulsory county
school tax, to which the State contributes about one-third directly out of
the State Treasury, reserving but a small portion for equalization, and is
accepted where a large real state school tax might not be possible. Bar-
ring a small contribution made to two counties that are much poorer in
taxable property than in children, the state school tax of each county is
returned to it. In the distribution within the county the valuation basis
of apportionment is entirely discarded and a combination basis of appor-
tionment is used which is one of the best in the Union. (See *New Jersey
School Report*, 1903, pp. xix-xxiv, for a more detailed statement.)

CHAPTER VIII

Distribution with Reference to Total Population

The attempt to use the number of pupils in some way as the basis of a plan of distribution marked a decided advance toward the equalization of educational burdens and advantages over the tax-paying or the valuation basis. It was a change in basis from the mere possession of wealth to the possession of children to be educated. Continuing to tax all in proportion to their means for the support of public education, the basis for the sharing in the fruits of such taxation or the income from permanent endowment funds became the number of children to be educated. The change was, in effect, a change from a system of local taxation to one of general co-operative effort. The use of the total population as a basis for distribution is essentially a transition measure, from an evolutionary point of view. It is a decided advance over the tax-paying or the valuation basis, and occupies a somewhat middle ground between these and the school-census basis. At best, however, it is only a rough method of approximately determining the number of children for whom education must be provided, and, hence, for whom funds should be apportioned. As a method it is not used by any states except New York and Vermont. In New York it is used only as a partial basis for the distribution of the State apportionment to the counties,[1] and in Vermont it is used only as a basis for distributing the small annual income from the "Huntington Fund." In both states the use of other bases for distributing the school moneys tends to neutralize the bad effects of such a basis of distribution,[2] and in both states the amount is relatively small. As

[1] *Consolidated School Law of N. Y.*, Title II, Art. 1, Sec. 6, div. 3.

[2] "The State Treasurer shall annually apportion the interest . . . and income (from the Fund) . . . to the several towns and unorganized towns and gores in the State, in proportion to the number of inhabitants in each, based upon the last census taken under the laws of Congress." *Vermont Statutes of 1894*, Ch. 40, Sec. 750.

a method of approximation, either to the number of children to be taught or to the number of teachers required, it is of no real value, as the percentage of children of school age to the total population varies greatly in different counties, towns, and cities, while the number of schools which must be maintained varies greatly in different localities. This may be shown by a few illustrations.

For the state of Massachusetts,[3] for example, the number of children of school census age, 5 to 15 years, was 16.9% of the total population of the state for the year 1900, and for every 1,000 inhabitants the state employed 4.5 teachers. In the different counties, however, the percentages of children of school-census age and the number of teachers employed per 1,000 of the population were as follows:

County.	Children of census age.	Teachers employed per 1,000 inhabs.	County.	Children of census age.	Teachers employed per 1,000 inhabs.
Barnstable	14.5%	6.1	Hampshire	16.7%	5.7
Berkshire	18.3%	5.2	Middlesex	16.7%	4.6
Bristol	18.8%	4.0	Nantucket	11.4%	4.3
Dukes	12.8%	6.4	Norfolk	16.9%	5.4
Essex	13.5%	4.2	Plymouth	16.0%	5.0
Franklin	16.9%	6.8	Suffolk	16.2%	3.6
Hampden	17.7%	4.1	Worcester	17.4%	4.7

Calculating the percentage of children of school age, 5 to 15 years in the total population and the number of teachers employed per 1,000 inhabitants for the eight largest cities of the state, as arranged in the order of size, we get the following:[3]

City.	Children of census age.	Teachers employed per 1,000 inhabs.	City.	Children of census age.	Teachers employed per 1,000 inhabs.
Boston	16.0%	3.6	Cambridge	16.4%	4.5
Worcester	17.1%	4.6	Lynn	15.4%	3.7
Fall River	20.5%	3.4	New Bedford	18.1%	3.5
Lowell	15.4%	3.2	Springfield	16.5%	5.1

[3] Calculated from data given in the Abstract of School Returns for 1900, in the *An. Rept. Mass. Bd. Educ.*, for 1900-1901.

Even a hasty inspection of the two columns of figures in the
above tables will show what an unreliable method the use of
total population is. The number of children per hundred of the
total population varies from 11.4 to 18.8 in the different counties,
and from 15.4 to 20.5 in the eight cities, while the number of
teachers employed to teach the children, which is the chief item
of cost, also varied greatly. In counties having the same number
of children per hundred of the total population, as for example
Hampshire and Middlesex, or Franklin and Norfolk, the varia-
tion in the number of teachers employed per thousand inhabitants
was as great as 20%. The cities of Boston, Cambridge, and
Springfield show a similar variation.

Turning from the cities to the smaller towns and calculating
the percentage of school-census children to the total population
for the list of thirty-seven poor towns given in Table No. 2,
Ch. III, we find them to be as follows:

11%, 2 towns.	16%, 8 towns.	21%, 1 town.
12%, 3 "	17%, 7 "	22%, 1 "
13%, 2 "	18%, 2 "	23%, 1 "
14%, 1 "	19%, 3 "	28%, 1 "
15%, 5 "	20%, 1 "	

Variations in the percentages may of course be due in part to
the degree of accuracy or inaccuracy in the school census, or in
the national census of 1900. But as the Massachusetts census
is required to be compiled annually by the School Commissioners
as educational information,[4] is fairly constant from year to year,
and is not used as a basis for the apportionment of school funds,
we may assume that the degree of inaccuracy existing between
the school census and the national census is small, and that
Massachusetts is a good state in which to study the relative per-
centage of school-census children to the total population.

Turning from Massachusetts to Indiana, a state where the
entire apportionment is made on the school-census basis, and
hence where there would be a special incentive to include every
child, 6 to 21, in the enumeration, we find similar variations
existing. Taking the first eight counties, in alphabetical order,
we find the percentages [5] to be, for 1900, as follows: [6]

[4] *Mass. Rev. Laws of 1901,* Ch. 43, Sec. 3.

[5] Calculations based on the National Census of 1900, *Report 12th U. S.
Census, 1900,* Vol. I, *Population;* on the State school census of April,

County.	Children of census age.	Teachers employed per 1,000 inhabs.	County.	Children of census age.	Teachers employed per 1,000 inhabs.
Adams	34.5%	5.9	Blackford	29.6%	5.6
Allen	30.7%	4.6	Boone	29.9%	6.8
Bartholomew	29.1%	6.5	Brown	34.5%	7.7
Benton	30.5%	9.6	Carroll	31.5%	8.2

For the three Indiana counties containing the three largest cities in the state the percentages of children of school age and the number of teachers per thousand inhabitants employed in the schools were:

County.	Children of census age.	Teachers employed per 1,000 inhabs.
County containing the largest city (Marion)	24.1%	4.2
County containing the second largest city (Vanderburg)	29.0%	4.6
County containing the third largest city (Allen)	30.7%	4.5

For the state of New York, a state in which total population is used as a partial basis for the apportionment of state funds, similar calculations from the returns of the School Commissioners for the first fifteen counties, as arranged in alphabetical order, cities omitted, give the following results: [7]

County.	Children of census age.	Teachers employed per 1,000 inhabs.	County.	Children of census age.	Teachers employed per 1,000 inhabs.
Albany	20.1%	5.4	Clinton	27.5%	7.2
Allegany	21.5%	10.5	Columbia	18.8%	6.2
Broome	20.4%	10.9	Cortland	19.0%	10.5
Cattaraugus	19.7%	7.9	Delaware	20.3%	9.6
Cayuga	19.2%	8.9	Dutchess	18.2%	5.0
Chatauqua	21.4%	9.5	Erie	25.0%	5.9
Chemung	21.5%	10.0	Essex	23.0%	9.7
Chenango	19.0%	9.9			

1900, *Bien. Rept. Supt. Pub. Instr., Indiana,* 1900, p. 380; and the number of teachers employed in the counties for the school year 1900-01, *Bien. Rept. Supt. Pub. Instr., Ind.,* 1902, p. 247.

[6] The great difference between the percentages for Indiana and for Massachusetts is due to the different age limits for which the school census in the two states is taken. In Massachusetts the limits are 5-15 years, while in Indiana the limits are 6-21 years, married persons not included.

For the eight largest cities of New York State, all having over 40,000 inhabitants according to the census of 1900, and where consequently a small difference in the percentage would make a large difference in the amount of money received, similar calculations from the returns give the following results: [7]

City.	Children of census age.	Teachers employed per 1,000 inhabs.	City.	Children of census age.	Teachers employed per 1,000 inhabs.
New York City.	23.5%	3.6	Albany.........	21.1%	3.3
Buffalo.........	22.8%	3.3	Troy...........	19.8%	3.6
Rochester.......	22.0%	4.6	Utica..........	21.4%	4.3
Syracuse........	22.5%	4.5	Yonkers........	20.8%	3.7

It will be evident from these tables that even as a method of approximation the population basis is very inaccurate, and that it bears no definite relation to either the number of children to be educated or to the number of teachers required. The chief result from its use as an apportionment basis, as the Indiana and the New York tables clearly show, is to give from one and a half to three times as much money to the cities as to the counties,[8] measured by the number of schools (teachers employed) which are maintained. The actual value of the grant is thus inversely proportional to the number of teachers employed, being worth only about half as much in Allegany, Broome, Chemung, or Cortland counties as in Albany, Dutchess, or Erie, and only about a third as much as in the cities of Buffalo, Albany, or New York. The grant varies also among the cities themselves, being worth about one-third less in Rochester and Syracuse, because of the employment of more teachers per thousand inhabitants, than in New York or Buffalo.

Besides inaccuracy the total population basis has the further

[7] Calculated from data given in tables 3 and 4 of the *Rept. Supt. Pub. Instr. of New York*, 1902, Vol. II. The calculations are based on the National Census of 1900, the biennial state school census of 1901, and the number of teachers employed for the school year 1900-1901.

[8] As a matter of fact the 42 cities and 61 counties of New York received practically the same amount of money in 1902 on the teachers-employed basis, but on the population basis the cities received twice as much as the counties. *An. Rept. Supt. Pub. Instr., New York*, 1902, I, tables, pp. 6, 7.

disadvantage that a national census is taken only once in ten years, and few states take a state census, while the school population of a county or a city may be experiencing a rapid increase or decrease during the period. Between 1890 and 1900, for example, these same eight New York cities given above made the following gains or losses in population: [9]

New York City gained	6%	Albany lost	1%
Buffalo gained	37%	Troy lost	1%
Rochester gained	21%	Utica gained	27%
Syracuse gained	23%	Yonkers gained	47%

The use of total population as an apportionment basis is open to still further objections in that it in no way offers a premium on any educational effort, and if used alone would do great injustice to all small schools, as will be shown later on. The total population basis was used by a number of states forty to fifty years ago, but it has since been abandoned by all but two. The future is not likely to see any further extension of its use. Now that the state of New York has discontinued general taxation for education and substituted an annual appropriation from the treasury in its stead, the object of which ought to be the assistance of those communities most in need of help, it would seem both desirable and just that the state should abandon even the partial use of an apportionment basis which so distinctly favors those communities best able to care for themselves. The substitution of the aggregate days' attendance basis for total population, as used in making the county apportionment, would seem to be a desirable change.

[9] Calculated from U. S. Census data for the years indicated. *Rept. 12th U. S. Census*, Vol. I, *Population*.

The School Census Basis

THE use of the school census as a basis for apportioning school funds is very common, thirty-eight states and territories using it entirely or in part. It forms a natural and an easy basis for the apportioning of funds. New Jersey, Delaware, Minnesota, and South Carolina, alone of all the forty-eight states and territories, do not take a school census. A census of children of school age, taken in part to secure educational information, has been made to serve as an easy and convenient basis for the apportionment of school funds. At first thought it appears to be a fair and a just basis. In proportion as a community has children to be educated funds ought to be apportioned to it for the purpose. Taxation collected in proportion to wealth is distributed in proportion to the number of children in need of education. The weakness of such an assumption is evident, however, when one considers that the percentage of the school census attending schools varies greatly, and that the cost of education is determined by the number of teachers needed to teach the children actually in the schools and not by the number of children who ought to or who might attend. Forty, thirty, twenty, or ten children in a district require the same number of teachers, that is, one. The cost of the school is almost wholly the cost of the one teacher, and the cost of the teacher should vary but little for a school within these limits.

Though a big advance toward equalization over an apportionment based on taxes paid, valuation, or even total population, the census-basis method is (1) theoretically defective in a number of particulars; (2) in practice only slightly equalizes inequalities and advantages, and often leaves the inequalities greater than before; and (3) offers no incentive to a community to make any effort for itself. We shall consider each of these in order.

(1) The general accompaniment of the census method has been an extension of the age limits both above and below the years for which schools are provided,[1] and the requirement that cities shall maintain their kindergartens and high schools by local taxation. The result of both has been thought to be a tendency toward equalization, though it is probable that this has been more than offset by other tendencies, as will be indicated later on. A small community, maintaining a school of seven to eight grades and for six months a year, is able to draw " census money " on all its members between five or six on the one hand, and twenty and twenty-one on the other, some of the states not specifically excluding married persons below the maximum age from enumeration, and on exactly the same basis as the city which provides kindergartens, high schools, and evening schools, and a ten months' term. While permitted by law and certainly justified under an exclusive census basis of apportionment because it tends toward equalization, this is theoretically unjust and is a wrong method of only partially accomplishing an equalization that ought to be provided for in a better way. In equity the cities ought to be rewarded for their greater efforts both as to schools and to term.

Another theoretical objection to the census method of apportioning funds is that it gives no incentive to the establishment of kindergartens on the one hand or high schools or evening schools on the other, or to any other form of extra educational effort.

With reference to kindergartens, it would seem but just that, in the twenty-two states using six years as the lower limit, the cities and towns establishing and maintaining kindergartens be allowed to report a separate enumeration of all children five to six years of age and draw " census money " on such extra

[1] The age limits for which the school census is taken in the different states seem to have been determined somewhat arbitrarily, and bear no close relation to the ages for which schools are provided. Tabulating the census age limits for the forty-four states and territories having a school census we find the following:

4-16 years, 1 states.		5-15 years, 2 states.		6-16 years, 1 states.	
4-20 "	2 "	5-16 "	1 "	6-18 "	4 "
4-21 "	1 "	5-17 "	1 "	6-20 "	3 "
		5-18 "	2 "	6-21 "	14 "
		5-20 "	2 "	7-21 "	1 "
		5-21 "	8 "	8-17 "	1 "

enumeration. This could be done without disturbing the uniformity of the state-school census. There are, however, certain serious objections to such a proposal. In the first place, cities often do not establish kindergartens in all parts of the city, and even when this is done the number of children attending kindergartens is usually much smaller than the number attending the first grade of the regular school, while on census it would be larger. This may be shown by the statistics from a few cities where kindergartens have been established as a part of the city system. The percentages are calculated from data given in the reports of the City Superintendents for the dates given, and are based on total enrollment, except for Newark, which is for average number belonging, and for St. Louis, which is for the number enrolled in each class at the close of the year.

KINDERGARTEN AND FIRST GRADE ENROLLMENT COMPARED.

Cambridge, Mass.................. 1900	40% of that of first grade.		
Los Angeles, Cal.................. 1902	65%	" " "
Newark, N. J...................... 1903	55%	" " "
Springfield, Mass................. 1903	59%	" " "
St. Louis, Mo..................... 1902	52%	" " "

Unless only a fraction of a " census child " apportionment were made for each child five to six years of age the cities would receive a further undue proportion of funds, resulting in further inequalities in their favor. However desirable it may be to incorporate kindergartens into the public school system, the census basis offers no practicable means of doing so. Still this is an easy matter if a proper apportionment basis is used, as we shall point out in a later chapter. (Chapters XII and XV.)

With reference to high schools, the cities are able to maintain them and to maintain them liberally, but the poorer towns and the rural communities usually are not. The census basis of apportionment, whatever the limits, offers no help here, and some form of aid beyond what comes from the census apportionment for those above fourteen or fifteen years of age is necessary if the state deems it desirable to encourage the formation of such schools in the smaller communities. Under the census basis of apportionment no reward is given for any efforts in this direction, though in justice some definite reward ought to be given to every

community for every pupil taught in a secondary school. This we shall consider more in detail in a later chapter. (Chapter XIV.)

What is true of high schools is equally true of evening schools, and of all other special types of schools or teachers. Where evening schools and special types of schools are established they constitute, under the census basis of apportionment, merely an additional drain upon the resources of the community, the state giving no financial recognition to such efforts. Though this may be fully justified by practical conditions, it is theoretically wrong. The equalization accomplished by withholding all aid from such forms of extra effort could be accomplished much more fully and in a more thoroughly just manner by using a better basis of apportionment, as we shall point out more fully in Chapters XII and XV.

Under the census basis of apportionment there is also no practicable means of dispensing with the commonly charged " tuition fees " between the districts. It is certainly an anomolous condition, when the state professes to maintain a general and free system of education throughout the state, and when the whole state is taxed for the partial support of this free system of common schools, that a child, passing temporarily to another school district, must pay a tuition fee before he is allowed to attend the free school, and chiefly because he is not on the census rolls of the district and the district draws no state aid for him. With high schools, which are not universally maintained, it is a somewhat different matter, but for the grades below the high school, which represent the " common school," there certainly ought to be no tuition. The abolition of the charge, however, is not practicable under any system except one which counts attendance at school. With the abolition of the " rate bill " tuition was made free for the census children of each district; the ultimate conclusion of the matter is the abolition of inter-district tuition fees and free education for the children of the state anywhere in the state. California stands almost alone among the states in taking a theoretically correct position on this matter. The basis of apportionment being teachers and the average daily attendance, as will be described later, it has been decided that every common school district which receives state aid must give absolutely free instruction to every child who comes to the

school,[2] and, further, that no high school district may charge
a non-resident a higher rate of tuition than the difference between
the actual cost of the instruction per pupil and the amount of aid
per pupil received from the state.[3]

(2) The common idea as to the effect of the distribution of
" census money " is that it not only reduces the tax rate but also
tends to equalize the burdens of communities. This idea prob-
ably arises from the fact that all are taxed equally according
to wealth and the money received is distributed equally to all
communities having children to educate. As to the effects of
such a distribution few school men seem to have made any in-
quiry. Such general taxation and distribution naturally reduces
the local tax rate, as any form of general aid would do, but that
it does not always tend to equalize either the burdens or the ad-
vantages of education may be shown by a few examples.

Taking the same nine Wisconsin counties used in Table No. 10,
Chapter IV, adding on the state apportionment of income from
the state school fund and the state school tax, which was equal,
for 1903-04, to about $1.82½ per census child,[4] and using the
data given in Table 10 for calculation, we get the following:

[2] Decisions of the Attorney-General of California, given to the State
Superintendent of Schools, and declared in force by him.

[3] " An Act creating a fund for the benefit and support of high schools
and providing for its distribution." Approved March 2, 1903, and as
amended by Senate Bill No. 266, Session of 1905, Sec. 9.

[4] *Rept. Supt. Pub. Instr. for Wis.*, 1903-04, Pt. II, p. 91. Calculated by
dividing the entire amount apportioned ($1,400,612.77) by the number of
school census children (758,626) on which the apportionment was made.

The state apportionments in Table 23 are taken from the Wisconsin Re-
port, Pt. II, p. 91.

TABLE No. 23.

EFFECT OF THE STATE APPORTIONMENT ON CENSUS IN CERTAIN WISCONSIN COUNTIES.

County.	State apportionment 1903–04.	Average amount per teacher employed.	Average rate necessary[b] to raise balance of $250.	Average rate of reduction of tax by state apportionment.
Adams............	$6,084.04	$46.44	5.50 mills.	18%
Ashland...........	13,309.49	96.44	1.93 "	38%
Barron............	19,400.04	84.61	3.84 "	34%
Bayfield...........	8,455.58	84.55	1.34 "	34%
Brown............	32,688.20	176.69	.46 "	74%
Buffalo...........	11,560.38	87.58	1.97 "	35%
Burnett...........	6,519.91	60.37	8.78 "	24%
Calumet...........	12,094.16	134.38	.66 "	54%
Milwaukee.........	219,680.30	193.29	.17 "	76%

The last column shows what would be the effect, for this group of counties, of an absolutely impartial distribution of state aid on the census basis, aid from any other source being neglected. While the rate of tax would be reduced, of course, the rate of reduction would be greatest in those counties where the rate was the least, and the inequalities resulting after the state aid is applied would be relatively greater than they were before.

These averages are, of course, for the counties as wholes and for the year 1903-04, and include town and city schools as well as small country schools. In the former the local tax rate would generally be lower while in the latter the local tax rate would have to be much higher to produce $250 per school,—so high, in fact, that it probably would be difficult to raise that amount in many districts. It may possibly happen that some school in the county averaging the lowest amount per teacher (Adams) may receive more money on census than the average of the county receiving the most per teacher (Milwaukee), but if so this would have to be offset by a large number of schools receiving much below the average. The opposite of this might also, naturally, be true. The effect of any variation from the average,

[5] The rate per teacher employed is the only basis upon which anything like a proper estimate can be made. The great expense of a school is for the salary of the teacher. $250 per school is certainly a minimum estimate. This gives only $30 a month for the minimum term of seven months, and leaves but $40 a year for all other expenses. The rate of tax necessary to produce the balance of $250 is found by calculating from the average valuations given in Table No. 10, Ch. IV.

as in the case of the two Connecticut counties given in Tables 7 and 8, Ch. IV, is to cause the rate of tax to fluctuate correspondingly. Certain schools in Adams County would require more than 5.50 mills to produce the balance of $250, while certain schools in Brown County would require less than .46 mills to produce this same amount.

When we remember that each school must have a minimum amount of money to pay the salary of the teacher and the incidental expenses of the school, and that there is little difference between the amount of money needed for a school of forty, thirty, twenty, or ten children, we can see what inequalities must not only exist but even be produced under a per-capita on census basis of distribution. Assuming that the percentage of enrollment on census[6] for the small schools of these counties is the same as the state average, the cities excluded, viz., 65%, we get the following schedule of aid, at $1.82½ per-capita on census, toward the expenses of a series of small schools.

TABLE No. 24.

SHOWING HOW SMALL SCHOOLS FARE UNDER THE CENSUS BASIS OF APPORTIONMENT.

(Calculated on the Wis. State Av. for 1903-04, of 65% of census enrolled, cities excluded, and a census apportionment of $1.82½ per capita, as determined from statistical data given in the *Rept. Supt. Pub. Instr., Wis.,* for 1903-04.)

Census 4-20 years.	Enrollment @ State Av. of 65%.	Value of the State apportionment. @ $1.82½ per capita on census.	% of $250 paid by State Appt.
11	7	20.08	8.0%
16	10+	29.20	11.6%
23	15	41.98	16.8%
31	20+	56.38	22.5%
39	25+	71.18	28.4%
46	30	83.95	33.6%
62	40+	113.15	45.3%
77	50	140.53	56.2%
92	60—	167.90	67.2%
108	70+	197.10	79.2%
123	80	224.48	89.8%
137	89	250.03	100.0%

If we halve or double the per-capita rate we correspondingly halve or double the figures of the last two columns. This being

[6] The Wisconsin census is from four to twenty years.

true, a natural proposal for helping the small schools would be to increase the state school tax so as to increase the per-capita apportionment. An increase to a per-capita census apportionment of $10.00 would give the school with a census of 23 the sum of $230, with which, with local taxation added, it could do good work. But this would also give the school with a census of 46 the sum of $460, though its enrollment would be but 30 as compared with 15 for the smaller school, while the city school enrolling but 50% to 40% of its census would receive from $1,000 to $1,250 for every teacher of 50 children. This certainly would seem neither just nor wise, yet it is what would actually happen in at least twenty states under present laws.

Turning to the statistical tables for these nine Wisconsin counties, and excluding all cities under a Superintendent, (Ashland, Green Bay, and Milwaukee), and calculating, we get the following table:

TABLE No. 25.

SIZE OF SCHOOLS AND SALARIES OF TEACHERS COMPARED WITH THE NET TAX RATE.

(Calculated from statistical data for 1903-04 given in the *Bien. Rept. of the State Supt. for Wis.*, 1903-04, pp. 99, 102, 104, 118.

	1903-04. Schools enrolling		1903-04. % of teachers receiving		
Counties.	10 or less.	11 to 20.	Less than $25 per month.	Over $50 per month.	Net tax rate.*
Adams...............	5%	25%	39%	1%	5.50 mills.
Ashland.............	8%	25%	0%	5% †(a)	1.93 "
Barron..............	1%	2%	4%	6%	3.84 "
Bayfield	14%	23%	0%	10%	1.34 "
Brown...............	0%	6%	9%	4% †(b)	.46 "
Buffalo..............	1%	10%	8%	5%	1.97 "
Burnett.............	1%	6%	1%	1%	8.78 "
Calumet.............	0%	18%	12%	4%	.66 "
Milwaukee..........	0%	3%	0%	48% †(c)	.17 "

* Average rate necessary to produce $250 after deducting the State apportionment, though this includes the cities in three counties. Excluding the cities, the net rate would be somewhat higher.

† In considering these counties as wholes, the following need to be added:

(a) 7 M. + 67 F. teachers in the city of Ashland averaged: M. $809.50; F. $546.86.

(b) 5 M. + 79 F. teachers in the city of Green Bay averaged: M. $900.00; F. $500.00.

(c) 128 M. + 856 F. teachers in the city of Milwaukee averaged: M. $1,140.62; F. $635.30.

A comparison of this table with the preceding one will show to what a large degree the census basis of apportionment fails to relieve burdens and to equalize the educational advantages among schools. It is at once evident that 30% of the schools of Adams County, 33% of the schools of Ashland County, and 37% of the Schools of Bayfield County would receive less than $60 a year from the state aid. Notwithstanding this the average amount received for 1903-04 from the state apportionment was about twice as much per teacher employed for Ashland or Bayfield as for Adams County, indicating the presence of many large schools in these counties and a number of small schools in Adams County. Due to the greater school population the total state apportionment was more than twice as large for Ashland County as for Adams County, while the number of teachers employed, the city of Ashland included, was as 138 to 131, and the average valuation per teacher employed was as 79 to 36. (See Table No. 10, Chapter IV.) It is thus easy for Ashland County to pay good salaries on a low tax rate, but it would be difficult for Adams County to do so even on a high tax rate.

What has been shown for Wisconsin may be shown similarly for other states. To give another illustration we will take the eight counties of the State of Missouri, and the city of St. Louis, as given in Table No. 11, Chapter IV. Calculating as in the preceding table for Wisconsin, we get the following:

TABLE No. 26.

EFFECT OF THE STATE APPORTIONMENT ON CENSUS IN CERTAIN MISSOURI
COUNTIES.

(Calculated from data given in the statistical tables of the *55th Rept. Supt. Pub. Instr., Mo.*, 1904, and from data given in Table No. 11, Ch. IV.)

Counties.	State apportionment, 1904, (@ $1.29.)	Av. value of apportionment per teacher employed.	Av. tax rate to raise balance of $250 per teacher.	Av. rate of reduction of tax apportionment by State apportionment.
Adair.............	$8,778.29	$58.14	5.27 mills.	23%
Andrew..........	6,480.44	60.00	2.70 "	24%
Atchison.........	5,930.51	47.04	3.05 "	19%
Audrain..........	8,454.27	57.91	3.24 "	23%
Barry.............	10,802.46	78.85	5.20 "	31%
Barton...........	7,509.31	53.26	4.60 "	22%
Bates.............	11,498.27	66.46	3.12 "	26%
Benton...........	7,018.76	64.39	4.70 "	26%
St. Louis (City)..	230,120.27	123.79	.56 "	49%

The averages in the next to the last column, though more nearly uniform for these eight counties than was the case with the Wisconsin counties, still show marked inequalities when compared with the amount received by the city of St. Louis, which, with a property valuation per teacher 6.8 times as large as the county having the lowest average valuation per teacher (Barry) and 3.2 times as large as the county having the highest (Andrew), receives, due to but 48% of its school census being enrolled, a sum per teacher 2.6 times as large as the county receiving the lowest average sum (Atchison) and 1.5 times as large as the county receiving the highest average sum (Barry).

These inequalities in Missouri are further increased by the fact that Missouri has variable county and permanent funds, the income of which is also apportioned to the districts on census by the counties. This only accentuates the inequalities produced by the state apportionment. Then, still further, the different districts receive their proper portion of the income of certain variable township 16th section grant funds. The presence or absence of these township funds, which vary greatly according to the size of the portion of the township included in the district, according to the original value of the township lands, and according to the degree of care with which a past generation has looked after these funds, is further neglected in making the district apportionments.

These township funds were originally granted as permanent endowments to the people of the township to help them maintain the schools of the township. But the township system of government has been abandoned in most states, and these old township grants vary so much in value and have been so subdivided by the district system, as the next to the last column of Table No. 27 will show, that they ought to be gathered up in one state fund, as has been done in Arkansas; [7] added to the

[7] "An Act to provide for the transfer of the 16th section fund." *State of Ark., Act CLIX*, approved May 8, 1899. This was done in accordance with an Act of Congress, enacted in response to a request of the General Assembly of the State of Arkansas and approved March 8, 1898 (*U. S. Statutes at Large*, 55th Cong., Sess. II, Ch. 54), modifying the compact entered into between the United States and the State of Arkansas on her admission to the Union, and authorizing the payment of the amount arising from the sales of 16th section lands into the common school fund of the State, and a *pro rata* distribution, in the future, of the income from the same.

different county funds; or taken into consideration and equalized in making the county apportionment, as is done in Indiana.[8] These funds properly belong to the state as a whole. The present generation, who receive the benefit of these funds in the form of low taxation, had nothing whatever to do with their formation.

The inequalities produced by these unequalized county and township funds may be shown by a study of a few of the districts of any one of these Missouri counties. We will take the first twelve of the eighty-six districts of Andrew County. This county has the largest average property valuation per teacher and the highest percentage of enrollment of any of the eight counties. This gives the following:

TABLE No. 27.

INEQUALITIES RESULTING FROM VARIOUS UNEQUALIZED PERMANENT FUNDS IN ANDREW COUNTY, MISSOURI.

(Data taken from a copy of the Annual Apportionment Sheet, for 1904, for Andrew Co., kindly furnished by the Co. Supt. of Schools. All data for the year 1904.)

			Amount received by district from:			
Dist. No.	*Property valuation of district.*	*Census children, 6-20 years.*	*State fund @ $1.29.*	*County fund @ $0.95½.*	*Township funds.*	*All funds.*
1	$71,035	44	$56.80	$42.02	$11.51	$110.33
2	62,685	30	38.73	28.65	7.86	75.24
3	73,675	35	45.18	33.42	8.41	87.01
4	43,095	43	55.51	41.06	10.33	106.90
5	61,070	46	59.38	43.92	11.06	114.36
6	89,595	42	54.22	40.11	76.54	170.87
7	74,425	33	42.60	31.51	60.14	134.25
8	68,860	32	41.31	30.56	17.61	89.48
9	124,440	46	60.68	43.92	30.98	135.58
10	16,410	4	5.17	3.82	2.69	11.68
11	79,810	28	36.15	26.74	18.86	81.75
12	92,015	40	51.64	38.20	13.97	103.81

The census column shows that each of these twelve districts is a single teacher district. Hence the annual expense of each for maintaining a school ought to be about the same, but the amounts received as aid vary greatly, and bear little relation to the taxable valuation of the different districts. In general, the

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[8] *Acts of 1897*, p. 291.   Approved and in force March 8, 1897.   *Rev. Stat. Ind., 1901*, Sec. 5973.

amount of aid received is most where the valuation is highest. This holds in a general way for the remaining seventy-four districts as well as for the above twelve.

To give another illustration of the effect of the census apportionment on the tax rate we will take the same eight counties of Kansas given in Table No. 12, Ch. IV, and, calculating as in the preceding tables, we get the following:

TABLE No. 28.

EFFECT OF THE STATE APPORTIONMENT ON CENSUS IN CERTAIN KANSAS COUNTIES.

(Calculated from data given in the *14th Bien. Rept. Supt. Pub. Instr.* of *Kans.,* 1903-04, and from data given in Table No. 12, Ch. IV.)

Counties.	State fund apportionment, 1904, @ $0.82.	Av. value of per teacher employed.	Av. rate necessary to produce balance of $250.	Av. rate of reduction of tax by State aid.
Allen............	$6,659.22	$62.23	3.09 mills.*	21%
Anderson........	3,728.54	35.51	6.50 "	13%
Atchison........	6,241.84	72.58	3.00 "	29%
Barber..........	1,943.40	23.14	10.04 "	8%
Barton..........	3,957.32	38.82	4.69 " †	14%
Bourbon.........	7,531.70	59.77	4.13 "	24%
Brown..........	5,576.82	54.67	3.62 " ‡	24%
Butler..........	6,315.64	32.72	6.39 "	13%

‡ This county has the longest average term and pays the highest average salaries to both men and women teachers of any county in this group.

† This county stands second for the same items.

* This county stands third for the same items.

The effect of the state apportionment made evenly to all on census, here, as in the case of the Wisconsin counties, is to leave the inequalities as great, if not greater, than before. That the inequalities are not relatively much greater after applying the apportionment than before, as was the case in Wisconsin, is largely due to the fact that the schools of these Kansas counties average more evenly and generally higher in census children than those of the Wisconsin counties, and that the amount of aid given is much smaller. This is equally true of the Missouri counties of Table No. 26. It will be noticed that here, as in the case with the Wisconsin group of counties, the rate of reduction of the tax rate is least where the rate is highest and most where the rate is least.

When we turn from a consideration of states where the per-

capita amount distributed is small, as is the case in Kansas (82c.) and Missouri ($1.29), to states where the per-capita amount distributed is large, the inequalities resulting under a census of distribution become more marked and more unjust. This may be illustrated quite well by taking California as an example. The apportionment of income from the state school fund and the state school tax for 1904, distributed to the counties on census, was equal to $9.47 per-capita on the census, 5-18 years of age, taken the preceding April, and upon which the apportionment is based. Taking the same eight counties used in Table No. 13, Chapter IV, and the combined city and county of San Francisco, and calculating as in the preceding cases, we get the result shown in the following table:

TABLE No. 29.

EFFECT OF THE STATE APPORTIONMENT ON CENSUS IN CERTAIN CALIFORNIA COUNTIES.

(Calculated from data given in Table No. 13, Ch. IV, and in the statistical tables in the *21st Bien. Rept. Supt. Pub. Instr., Cal.,* 1903-04.)

Counties.	State apportionment, 1904.	No. of Pr. and Gr. Trs. employed, 1903-04.	Av. value of apportionment per teacher.	Average yearly salary paid.*	Per cent from State funds.
Alameda.	$332,046	575	$577.00	$813.15	70%
Alpine.	729	3	243.00	529.75	46%
Amador.	24,148	63	383.00	487.22	80%
Butte.	41,724	108	386.00	512.88	75%
Calaveras.	26,411	73	361.00	585.90	62%
Colusa.	17,737	53	346.00	525.38	66%
Contra Costa.	44,944	98	458.00	667.00	68%
Del Norte.	6,420	18	356.00	522.40	66%
San Francisco.	865,425	996	868.00	921.59	94%

* Calculated by multiplying the average monthly salary for primary and grammar school teachers in the county by the length of the term.

The last two columns are indeed interesting, and show the presence of very great inequalities. It is an easy matter for San Francisco and Alameda counties to pay large salaries. If San Francisco paid less than an average of $862.75 per year for salaries it would receive more money from the state than it could legally spend, as the state law requires that " all state money must * * be applied exclusively to the payment of

teachers of primary and grammar schools," [9] except an allowance in cities of $50 per 1,000 census children (equal to $5.25 per teacher for San Francisco for 1904) for school libraries.[10] Such salaries would be almost impossible in any other county except Alameda, yet the average property valuation per teacher employed in San Francisco is 2.76 times (Table No. 13) the average for the State, 2.46 times that of the county of the eight (Colusa) having the highest average taxable valuation per teacher, and 7.26 times that of the county of the eight (Amador) having the lowest average taxable valuation per teacher. Such great inequalities as these should be equalized by the adoption of a better basis of apportionment.[11]

The statistical returns for Indiana give details for rural schools, town schools, and country schools, though property valuations for these divisions are not obtainable. It is possible, however, to calculate the average value of the census apportionment per teacher employed during 1903-04, for each of these groups, which we will do. Counting the apportionment for 1904 as $2.90 per census child,[12] multiplying the census apportionment by the number of census children in each group,[13] and dividing the product obtained by the number of teachers employed in each group, gives us the next table.

[9] *Political Code of Cal.*, Sec. 1622.

[10] *Ibid.*, Sec. 1714.

[11] This was done, in large part, by the Legislature of 1905, by the adoption of Senate Bill No. 236, as will be explained later under Ch. XII.

[12] According to the *Rept. Supt. Pub. Instr.* for Indiana for 1904, the State apportionment of common school revenue for the year was $2,223,-714.78 (statistical tables 6a and 6b), and the school census for 1903, on which the apportionment for 1904 was made, was 767,436 (p. 509). This gives a per capita on census apportionment of $2.90 for the year 1903-04. The $2.95 given in the State School Report is found by including the income from the township funds.

[13] It is necessary here to use the census figures for 1904, as the detailed census for 1903 was not printed. This will cause slight but uniform variations from the true amount, but will not materially affect the result, as the annual apportionment does not vary but a few cents in amount from year to year.

TABLE No. 30.

(Calculated for the school year 1903-04 from data given in statistical
tables Nos. 7a and 8 of the *Rept. Supt. Pub. Instr., Indiana*, for
1904, and Table No. 14, Chapter IV.)

Counties.	Av. property valuation per teacher in county.	Av. value of State Appt. per teacher employed.		
		In township schools.	In town schools.	In city schools.
Adams................	$81,838	$164.44	$144.23	$155.58
Allen................	120,391	160.68	162.46	244.10
Bartholomew...........	97,832	109.51	113.54	131.80
Benton................	127,927	78.52	101.18	......
Blackford.............	82,594	148.28	......	152.68
Boone................	100,350	122.37	81.63	129.90
Brown................	24,150	120.12	94.73	......
Carroll...............	74,921	103.28	103.24	109.32
Marion................	163,792	128.56	......	160.86

The city in Allen County is Ft. Wayne. This County has al-
most twice the per-capita wealth of Benton County, about four
times the per-capita wealth of Blackford or Boone County, and
about ten times the per-capita wealth of Brown County.[14] Brown
County is one of the poorest counties in the State.

(3) The census basis method, further, besides absolutely dis-
regarding the relative property valuations and rates of taxation
necessary to supply the balance needed to maintain the schools
for the year, also disregards the efforts as well as the needs of
the communities.   Instead of offering an incentive to communi-
ties to provide additional school facilities, to secure as large an
enrollment on census as possible, to encourage pupils to come
to the public schools instead of going to private schools, to en-
force the compulsory attendance and child-labor laws that the
average membership and the average daily attendance may be
kept up as high as possible, and to increase the teaching force in
over-crowded schools, the census basis method offers a premium
to short-sighted or heavily taxed communities on just the opposite
of these efforts.   The smaller the percentage of census children
enrolled in the public schools the greater the value-per-child-
enrolled of the state apportionment, and the smaller the number

[14] See Table No. 14, Ch. IV.

of teachers who will be needed for the schools. This means a lower local tax rate or a longer term on the same money. This may be seen from the following table relating to Wisconsin, which has been calculated from the same source as the preceding tables.

TABLE No. 31.

PERCENTAGE ENROLLED AND THE VALUE OF THE STATE APPORTIONMENT ON
ENROLLMENT FOR CERTAIN WISCONSIN COUNTIES.

(Calculated on the basis of the census of the summer of 1903 and the enrollment for the school year 1903-04, from statistical data given in the *Rept. Supt. Pub. Instr., Wis.*, for 1903-04.)

Counties, including cities under a City Superintendent.	Percentage of census, 4-20 years enrolled.	Value of $1.82½ census apportionment on actual enrollment.
Adams....................................	77%	$2.37
Ashland *................................	65%	2.81
Barron..................................	74%	2.46
Bayfield................................	74%	2.46
Brown †................................	51%	3.58
Buffalo.................................	67%	2.73
Burnett.................................	70%	2.61
Calumet.................................	50%	3.65
Milwaukee ‡............................	43%	4.24
* City of Ashland, alone................	61%	2.99
† City of Green Bay, alone.............	56%	3.26
‡ City of Milwaukee, alone.............	41%	4.45
State of Wisconsin, average............	61%	2.99
State, cities omitted..................	65%	2.81
Cities alone...........................	52%	3.51

The last column shows a new set of inequalities produced by this method, which more than offset the gain to the rural counties and districts from the four-to-twenty year census age and the requirement that the cities maintain their kindergartens and high schools by local taxation. The city of Milwaukee's census apportionment was almost twice as large per child enrolled for 1903-04 as that of Adams County, the county having the highest percentage of census enrolled and the one county of the nine without railroads and with no large towns.

The eight Kansas counties for which we have complete statistics (cities of the second class in the omitted counties not having reported), and the five largest cities in order of size (Leavenworth, which would have been the fourth, is omitted because it

failed to make statistical returns), illustrate these inequalities in the actual value of the census apportionment even better than Wisconsin. The premium here, as in Wisconsin, is against any effort to secure a large enrollment or attendance. The smaller the enrollment and attendance the more state money with which to teach those who do come.

TABLE No. 32.

VALUE OF THE CENSUS APPORTIONMENT ON ENROLLMENT AND AVERAGE DAILY ATTENDANCE FOR CERTAIN KANSAS COUNTIES.

(Calculated on the basis of the school census of June, 1903, and the enrollment, attendance, and apportionments for 1903-04, from data given in the statistical tables of the *Bien. Rept. Supt. Pub. Instr., Kans.*, for 1903-04.)

Counties, cities included.	Percentage of census, 5-21 years enrolled.	Percentage of census in Av. Dy. Att.	Value of 82c. Appt. on enrollment.	Value of 82c Appt. on Av. Dy. Att.
Allen..	67%	46%	$1.11	$1.78
Atchison *.............	45%	30%	1.82	2.73
Barber.................	86%	60%	.95	1.37
Barton.................	65%	58%	1.26	1.41
Bourbon †.............	48%	33%	1.71	2.48
Chase..................	84%	55%	.97	1.49
Chautauqua............	90%	56%	.91	1.46
Cheyenne..............	86%	59%	.95	1.39
Largest cities—				
Kansas City	58%	43%	1.41	1.90
Topeka...............	63%	48%	1.30	1.71
Wichita	66%	52%	1.24	1.57
* Atchison............	53%	40%	1.55	2.02
† Fort Scott..........	54%	41%	1.52	1.98

Making similar calculations for the eight Missouri counties, the the three largest cities in the State of Missouri, and the state averages for rural schools, city and town schools, and the state as a whole, we get the following:

TABLE No. 33.

VALUE OF THE CENSUS APPORTIONMENT ON ENROLLMENT AND AVERAGE DAILY
ATTENDANCE FOR CERTAIN MISSOURI COUNTIES.

(Calculated on the basis of the census of May, 1904, the enrollment and
attendance for the school year 1903-04, and the annual apportionment
of July, 1904, from data given in the statistical tables of the
An. Rept. Supt. Pub. Instr., Mo., 1904.)

Counties (cities included).	Per cent of census, 6-20 Yrs.		Value of $1.29 + on	
	Enrolled.	In Av. Dy. Att.	Enrollment.	Av. Dy. Att.
Adair .*....................	80%	48%	$1.61	$2.68
Andrew...................	103%	48%	1.25	2.68
Atchison..................	95%	60%	1.37	2.15
Audrain †.................	78%	56%	1.66	2.30
Barry.....................	100%	54%	1.29	2.39
Barton....................	93%	58%	1.39	2.22
Bates.....................	90%	65%	1.43	1.98
Benton....................	77%	48%	1.67	2.68
Three largest cities—				
St. Louis.................	48%	35%	2.69	2.80
Kansas City..............	46%	34%	2.80	3.79
St. Joseph................	27%	22%	4.78	5.86
* Includes city of Kirksville..	78%	50%	1.65	2.58
† Includes city of Mexico	69%	45%	1.87	2.87
State of Missouri...........	74%	46%	1.74	2.80
Rural schools.............	88%	51%	1.46	2.53
City and town schools......	59%	42%	2.18	3.07

The inequalities shown by the last two columns are such as to
indicate the need of a reform in the methods of apportioning
funds in Missouri. These inequalities are accentuated when one
remembers that in the large cities, where the actual per-capita
value of the apportionment runs the highest, the number of
census children on which this high per-capita value is drawn is
very large. This gives the cities a large sum of money each year
to do work which they are never called upon to do and which
they make no preparation for doing. This may be shown by
comparing the city of St. Joseph with the totals for the first six
counties in the table [15] given above.

[15] Data taken from the statistical tables in the *An. Rept. Supt. Pub.
Instr., Mo.,* for 1904.

	Census.	Enrollment.	Av. Dy. Att.	Trs. employed.
City of St. Joseph............	35,865	9,696	8,041	280
Totals for first six counties..	37,329	33,893	20,116	809

The total apportionment on the census number, divided by the number of teachers actually employed, gives an average value per teacher of the apportionment of $165.24 for St. Joseph as against $59.52 for the six counties. While St. Joseph has a lower percentage of enrollment and average daily attendance on census than the usual large city, what is true of it compared with county averages is true in a degree of almost every large city. (See Table No. 38, Chapter X, for the percentage enrolled in the four largest cities in each of the five states studied.)

Turning to California, where the value of the apportionment is is large, and making similar calculations for the eight California counties used in the preceding table, for the three largest cities in the state, and for the state as a whole, we get the next table.

TABLE No. 34.

VALUE OF THE CENSUS APPORTIONMENT ON ENROLLMENT AND AVERAGE DAILY ATTENDANCE FOR CERTAIN CALIFORNIA COUNTIES.

(Calculated on the basis of the school census of April, 1903, on which the apportionments of 1903-04 are made, and the enrollment and attendance for the school year 1903-04, from data given in the statistical tables of the *21st Bien. Rept. Supt. Pub. Instr., Cal.*, 1903-04.)

Counties (cities included).	Per cent of census, 5-17 years.		Value of $9.47 of State apportionment on		Av. length of term in days. 1903-04.
	Enrolled.	Av. Dy. Att.	Enrollment.	Av. Dy. Att.	
Alameda............	70%	53%	$13.53	$17.87	195
Alpine.............	78%	54%	12.14	17.72	163
Amador............	79%	58%	12.00	16.33	162
Butte..............	85%	57%	18.14	16.61	158
Calaveras..........	76%	54%	12.46	17.54	186
Colusa.............	83%	61%	11.41	15.53	150
Contra Costa........	87%	56%	10.88	16.93	186
Del Norte..........	78%	57%	12.14	16.61	171
San Francisco.......	64%	38%	14.79	24.92	210
State of California..	75%	53%	12.63	17.87	165

Making similar calculations for the first eight counties of Indiana, the three counties containing the three largest cities, and the averages for the State, we get the next table. The statistical returns for Indiana enabling us to separate the country

schools, town schools, and city schools, we arrange the table so as to show the value of the state apportionment for each class. For the percentages of enrollment see Table No. 39, Chapter X.

TABLE No. 35.

VALUE OF THE CENSUS APPORTIONMENT ON ENROLLMENT AND AVERAGE DAILY ATTENDANCE FOR CERTAIN INDIANA COUNTIES AND CITIES.

(Calculated for the school year 1903-04 from tables 7a, 7b, 7c, in the *22d Bien. Rept. Supt. Pub. Instr., Ind.*, for 1903-04. Calculated on the basis of the school census of April, 1904, the 1903 census returns not having been published.)

Counties.	Per cent of census, 6–21 years enrolled in county.	Value of the State apportionment of $2.00 on enrollment in			
		County as a whole.	Rural schools.	Town schools.	City schools.
Adams................	69%	$4.21	$4.26	$3.67	$4.60
Allen.................	48%	6.04	5.27	3.72	6.91 *
Bartholomew..........	74%	3.92	4.20	3.22	3.67
Benton,...............	83%	3.46	4.20	2.96	....
Blackford.............	79%	3.67	3.92	....	3.49
Boone................	82%	3.54	3.82	2.55	3.12
Brown................	76%	3.82	3.92	2.96	....
Carroll...............	80%	3.63	3.82	2.64	3.26
Marion...............	68%	4.26	4.03	....	4.26 †
Vanderburg...........	48%	6.04	5.92	....	6.30 ‡
State of Indiana.......	72%	4.03	3.97	2.59	4.53

* Third largest city, Ft. Wayne.
† Largest city, Indianapolis.
‡ Second largest city, Evansville.

The low value of the apportionment in some of the town schools is doubtless due to the presence of " tuition pupils " from the rural schools, drawn by the presence of a small high school, and who serve to increase the percentage of enrollment from which these values are calculated. This ought also to increase the enrollment in the county-seat cities. The values of the state apportionment or enrollment are seen to be highest for the cities of Ft. Wayne, (Allen County) and Evansville (Vanderburg County). This is due to their low percentage of census enrolled.

Similar inequalities could be shown for groups of counties in any state using the census basis of apportionment. The method is not one that will give even or just results. The wide variations in the actual value of the census apportionment reveal one

of the worst defects of the school-census basis for the apportionment of school funds. Surely this is not using the income from the funds, as required by so many state constitutions, for the equal benefit of all the people of the state.

The census basis gives a district less than is due it if the enumerator fails to list all the children, and the premium placed upon getting every name on the list offers a constant temptation to communities to "pad" their census lists so that the "census money" to be drawn may be larger both in total amount and in per-capita value on work actually done by the schools. This "padding of the census," though not often resorted to, is not easy for the state authorities to discover, as census lists are seldom questioned. Most of the states have experienced difficulty in this respect at some time in their history, and New Jersey was finally led to abandon its census entirely in 1901 because of evident and repeated inaccuracies in the school census.[16]

Where private schools exist, the census basis of apportionment is defective in that it gives money to communities for the education of children who do not attend the public schools and for whom the public schools need make no provision whatever. As private schools exist chiefly in the cities, this tends to give the cities other advantages which work against equalization. This alone in many eastern cities more than offsets the effect of the high census age on which the country districts draw "census money." The State of Connecticut, for example, makes a yearly grant to the several towns of $2.25 for each census child, 4 to 16 years of age, in the town.[17] Taking the ten largest cities in Connecticut and calculating, we get the following:

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[16] For a discussion of the question in New Jersey and the difficulties experienced there, see the *New Jersey State School Reports* from 1896 to 1901. Between 1891 and 1901 the school enrollment increased every year, though the school census for four of the years showed a decrease from that of the preceding year. *1903 Report*, p. xix.

[17] *Conn. General Statutes*, Sec. 2257.

TABLE No. 36.

(Calculated from data given in the statistical tables of the *An. Rep. Conn. Bd. Educ.*, 1903, for the school year 1901-02.)

Cities.	Number in private schools.	Percentage of town census.	Money drawn for private school pupils
New Haven	3,116	13%	$7,011
Hartford	3,617	21%	8,136
Bridgeport	3,273	18%	7,364
Waterbury	2,220	16%	4,995
Meriden	1,599	24%	3,597
New Britain	1,504	23%	3,384
Norwalk	616	13%	1,386
Danbury	1,165	25%	2,621
Norwich	883	16%	1,987
Stamford	695	16%	1,564
Total	18,688		$42,045

On the other hand the five towns in Windham County (see Table No. 7, Ch. IV), having the lowest valuation per teacher employed, reported a total of but one pupil in private schools, and the five towns in Fairfield County (Table No. 8, Ch. IV), having the lowest valuation per teacher employed, reported a total of but ten pupils in private schools. The highest percentage was two per cent., one town with a census of one hundred and ninety-nine reporting four pupils in private schools.

The examples which have been given to show the inequalities resulting from the per-capita on census basis of apportionment when used alone, could be greatly multiplied in number if necessary. Every state using the census basis of apportionment could furnish plenty of additional illustrations. As a method of apportionment, used alone, it is unsatisfactory and unjust. It fails to accomplish, in any marked degree, that equalization of burdens and advantages for which state endowment funds and general taxation exist. Its further use is not to be encouraged, and its general abandonment as a basis for apportionment would be in the interests of justice. The school census itself, in a revised and improved form, we should, in all probability, want to retain, but its use would be as a basis for the enforcement of the compulsory attendance laws instead of the apportionment of school funds.

Many state school reports make no returns as to private school pupils, so that the proportion of the school census enrolled in private schools is not known. In many cities where the enrollment is low, the number enrolled in private schools must be large. In Milwaukee, for example, 20,000 children between 7 and 14 years attended private schools [18] for thirty-two weeks during 1903-04 as against 22,878 between the same ages and for the same time at public schools; in Wayne County, Michigan, (Detroit), the estimated number of pupils in private schools [19] during 1902-03 was 16,538 as against a total public school enrollment for the county of 66,393 for the same year; and in San Francisco 20,978 children, between 5 and 17 years of age, attended private schools [20] during 1903-04 as against 58,856 children between the same ages in public schools. For each pupil in private schools the different states paid census money [21] at the rate of 1.82½ for Wisconsin,[22] $2.70 for Michigan,[23] and $9.47 for California,[24] which gave the two cities and the county the following incomes from " census money " on pupils whom they never taught: Milwaukee, $36,500; Wayne County (Detroit), Michigan, $44,652.60; and San Francisco, $194,161.66 for the years indicated above.[25] The Milwaukee

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[18] *Bien. Rept. Supt. Pub. Instr., Wis.,* 1903-04, Pt. II, p. 117. The Wisconsin statistical tables give only the thirty-two weeks' enrollment for private schools.

[19] *67th An. Rept. Supt. Pub. Instr., Mich.,* 1903, pp. 174, 193.

[20] *21st Bien. Rept. Supt. Pub. Instr., Cal.,* 1903-04, p. 152.

[21] This calculation neglects those who came to the city merely to attend the private school and who live elsewhere, but this number is probably more than offset by the number of census pupils who attended no school during the year, but who would have attended a private school had they enrolled in any school.

[22] From Table No. 24, Ch. IX.

[23] *67th An. Rept. Supt. Pub. Instr., Mich.,* 1903, p. 30.

[24] *21st Bien. Rept. Supt. Pub. Instr., Cal.,* 1903-04, p. 197.

[25] The new California apportionment law of 1905, as enacted by *Senate Bill No. 236,* changes the basis for the State apportionment to the counties from a straight census basis to $250 for every seventy " census children " or fraction of twenty or more, and the balance on the average daily attendance in the public schools. This will reduce the apportionment to San Francisco somewhat, though the city will still receive $75,000 a year on this basis for pupils taught in private schools.

figures are probably only about half the actual amount, due to their not including children below seven or over fourteen years of age, or any children attending private schools less than thirty-two weeks.

It is very desirable, from a national point of view, that as large a percentage as possible of pupils of school age be enrolled in the public schools. It would be a great misfortune if our public schools, especially in the larger cities, were to be patronized only by the poorer classes of society. It would be a grave mistake, however, to attempt to secure a high enrollment in the public schools by crushing out any worthy private school. It is decidedly for the best interests of the public schools that there should be a friendly competition between them and all good private schools. But, while this is true, communities should nevertheless make every effort to improve the public school system so as to draw a larger and a larger percentage of all pupils into the public schools, and strive to awaken a strong feeling of local pride in the public school system which the community maintains. To this end, the state, in giving aid to schools, should wisely avoid any form of grant which tends to place local effort at a discount, but should employ, on the contrary, that form or combination of forms of grant which will tend to stimulate communities to make the best efforts within their powers. Judged by this standard the census method is very defective.

The census basis of apportionment, further, has no educational significance in that it does not place a premium on any effort that makes for better education or better educational conditions in a community. Number enrolled, average membership, average daily attendance, extension of the amount of instruction offered, quality of teachers, addition of extra teachers, length of term, enforcement of compulsory attendance laws, efforts to make the public schools better so as to attract pupils away from the private schools,—all these important educational incentives are absolutely ignored when aid for education is apportioned solely on the per-capita on census basis. Communities are stimulated to get every possible name on the census list, but there the stimulation ends. If the same zeal were shown in getting these children into the schools and keeping them there it would be very commendable. If it is worth while for the state to give

aid to education at all, then the state ought to give its aid in such a manner and under such conditions as will produce the best result. To stimulate a community to educational activity is much more important than merely decreasing its school taxes ; the aid given to reduce the school taxes ought to be used as a lever to get as much from the community itself as it is able to give.

The statistical tables given in the school reports of the various states frequently contain little data which can be used to show the exact nature of existing inequalities, and what the reports do contain generally has to be re-arranged and calculated anew. Few states have ever collected statistics to ascertain the result produced by the aid which they give. Still, with the data now obtainable, an examination will show the inequalities produced and existing under the census method of apportionment, and a careful study of specially collected statistical data for any state using the census method alone would yield results which would not only surprise most educators but would also do much to produce a sentiment favorable to a change to a better and more just method of apportionment. In some cases, state constitutions would need to be changed, in other cases, only school laws, and in all cases the opposition of the cities would have to be met and overcome by forcing to the front a discussion as to what is the real purpose of state aid. The census method of distribution certainly does not provide for " a general and uniform system of free common schools throughout the state." Until this can be accomplished, or some new form of relief established, there can be no easing of the burdens of school taxation to many small and poor communities, and no chance to make any real headway in the direction of equalizing the advantages of education to all.

To show how common this method of apportionment is we present a table of the thirty-eight states and territories in which the method is used, wholly or in part, singly or combined, classifying the states by groups, and arranging the groups in somewhat the order of merit of the plan in use.

TABLE No. 37.

VARIETIES OF PER CAPITA ON CENSUS PLAN OF APPORTIONMENT IN USE.

1. A State tax, kept in the counties where paid, and apportioned by the counties on census. Income from the permanent State school fund apportioned to the counties on census.

Tennessee.

2. From the State to the county, and from the county to the township or district on census.

Colorado,	West Virginia,
Illinois,	Missouri,
Kansas,	Oklahoma,
Iowa,	Utah,
Wisconsin,	Arkansas,
North Dakota,	Maine (to towns),
Michigan,	New Mexico,
South Dakota,	Montana,
Ohio,	Texas.

3. From the State to the county on census, and then the "County System" of control and apportionment.

Maryland,	Georgia,
Louisiana,	Mississippi.
Virginia,	

4. From the State to the county on census, and then the application of an equalizing plan in the apportionment within the county.

(*a*) Where an equalization between townships is first made, and the balance is distributed on census.

Indiana,   Alabama.

(*b*) Where the needs of the small school are recognized in making the apportionment on census.

Kentucky.

(*c*) Where a "district quota" is first set aside for each school district, and the balance then apportioned on census.

Oregon,   Wyoming,
Idaho,   Nebraska.

(*d*) Where a "district quota" or a "teacher quota" is first set aside.

Nevada. Teacher's quota. Balance on census.
Arizona. District quota. Balance on attendance.

5. Where the census basis is only one of two or more bases used by the State in making the apportionment.

North Carolina,	California,
Pennsylvania,	Connecticut.
Rhode Island,	

It will be evident from the preceding discussion that the Tennessee method represents the lowest position, in the scale of evolution, of any state of the series. It is a combination of the "taxes where paid" and the census method.

The second group contains states employing the straight census method from the state down to the school district, which results in many inequalities and gives many unjust results. The addition of any apportionment derived from a county tax also increases these inequalities, as does the presence of unequalized county or township funds. The inequalities in the township funds were shown by Table No. 27 for one of the counties of Missouri, and by Table No. 16, Chapter V, for certain counties of Missouri. This same condition is found in every state where such local funds exist, and could be shown by statistical data wherever this is available.

Where the state per-capita apportionment is small, as in Kansas, a census basis apportionment only relieves communities of a varying small portion of their school tax, but where the apportionment is large and is given out with practically no requirements to be met in return for state aid, it tends to encourage communities to rely entirely on the state and county apportionment for all support and to reduce salaries or term or both to equal the amount received. In Texas, for example, the state apportionment is equal, on an average, to about $6.00 per child enrolled, and the income from county funds brings the average up to over $8.00, yet in 1899-1900 the average length of term was only 108.2 days [26] and by 1901-02 it had fallen off to 101.9 days, being shorter than in every other state or territory, except Arkansas, Florida, Kentucky, Mississippi, North Carolina, New Mexico, Oklahoma, South Carolina, and Tennessee. Local support averaged for 1901-02 less than $2.00 per child, and the average salaries per year of teachers were lower than in two-thirds of the states of the Union. Yet Texas has about three times the largest permanent school fund of any state in the Union. Commenting on these figures the State Superintendent of Public Instruction for Texas says: [27] "The general average length of term for the year 1900-01, including independent (special taxing) districts, was a little less than five and one-third months; and the average in common school districts was only four and nine-tenth months. Nevertheless, there has been so much talk, not to say boasting, of the munificent permanent

[26] *Repts, U. S. Com. Educ.*, Statistical Introd.

[27] *13th Bien. Rept. Supt. Pub. Instr., Texas*, 1900-02, p. 6.

school fund of this state that it is difficult to make the public realize that a good measure of local support is indispensable to our system. * There can be no marked general advance in the educational affairs of Texas until local taxation becomes the rule and not the exception throughout the countless school districts of our broad land." A better method of distributing this fund, coupled with a penalty of forfeiture of state funds for failure to comply with the requirements laid down by the state, would enable Texas to demand and enforce a minimum school term of seven months and to materially increase the salaries paid to the teachers of the state.

The third group of states in Table No. 37 belongs to the county system in the South, and, if properly administered, offers many advantages over the plan of the states of the second group. The chief weakness of this system of distribution is that, in the census distribution to the counties, no emphasis is placed on the educational needs of the various counties as determined by enrollment, attendance, or number of teachers needed. All counties share alike without regard to effort made. The system shares in the many defects of the census basis of apportionment. Within the county it is possible, under this plan, to equalize opportunities thoroughly, though probably it is not always done. A few selections from the School Laws of Georgia [28] will show the possibilities for equalization within the county, under this system:

"Sec. 12. Each and every County in the State shall compose one school district, and be confined to the control and management of a County Board of Education.

"Sec. 18. The County Boards shall lay off their Counties into sub-districts, in each of which sub-districts they shall establish one common school each for the white and colored races where the population of the two races is sufficient. . . . In any sub-school district where more than one school is demanded, they shall establish one or more additional schools. . . . Said Board shall have full power to make such changes as the public necessities may require. The said County Boards are also empowered to employ teachers to serve in the schools under their jurisdiction.

"Sec. 19. The County Board of Education shall have power to purchase, lease, or rent school sites; to build, repair, or rent school-houses; to purchase maps, globes, and school furniture; and to make all other

[28] *A Compilation of the Laws relating to the Common School System of Ga.*, 1903.

arrangements of this kind necessary to the effective operation of the schools. . . . They shall make arrangements for the instruction of the children of the white and colored races in separate schools. They shall, as far as practicable, provide the same facilities for both races in respect to attainments and abilities of teachers and length of term. . . . They shall have full power and authority to define and regulate the length of the public school terms of their respective Counties."

The fourth and fifth groups of states in Table No. 37 represent definite attempts to provide a plan for the distribution of funds which will equalize both the burdens and the advantages of education. In the fourth group the state still retains the census method,[29] with all its inequalities in the distribution to the counties, but has tried to overcome these inequalities, in a greater or less degree, in providing for the distribution within the counties. An interesting point in this connection is that in the three states of this group, the constitutions of which require a census distribution, each state has, in one form or another, broken away from a strict interpretation of the constitutional requirement in order to establish a better system of distribution.

In Oregon the state constitution[30] requires a per-capita on census distribution to the counties, but is fortunately silent as to how the counties shall distribute the fund after they receive it, and the Legislature has taken advantage of this silence to enact a better county distributive law.[31]

In both Kentucky[32] and Wyoming[33] the constitutions require a per-capita on census distribution of the state fund to the counties and thence to the districts. In Kentucky the Legislature has interpreted this provision somewhat liberally by providing that no district shall be considered as having less than forty-five census children[34] in making the state apportionment.

[29] By a law passed at the 1905 session of the California Legislature, *Senate Bill No. 236*, amending section 1532 of the *Political Code*, California practically changes place from the fourth to the fifth group of states.

[30] *Constitution of Oregon*, Art. IX, Sec. 4.

[31] *School Laws of Oregon*, as compiled and published by authority of Senate Joint Resolution No. 6 of 1903, Art. III, Sec. 20, div. 3.

[32] *Constitution of Kentucky*, Sec. 186.

[33] *Constitution of Wyoming*, Art. VII, Sec. 8.

[34] *The Common School Laws of the Commonwealth of Ky.*, 1904, Art. I, Sec. 2.

In Wyoming, in providing for the distribution of the county school tax, the Legislature has provided that a definite portion for each district shall be set aside before apportioning the remainder on census.[35]   The efforts at equalization within the county, to counteract the bad effects of the census method of apportionment, extend from the recently enacted law in Indiana, on the one hand, which requires an equalization of the township 16th section funds [36] before making the county apportionment, and then the balance on census, to the Arizona and California plans,[37] on the other hand, which make the district or the teacher the central factor in the county apportionment.

In the fifth group of Table No. 37, the state has attempted to partially equalize between districts in making the state apportionment, while still, in part, retaining the census basis of apportionment.

[35] Before 1903 this remainder was apportioned on attendance, but in 1903 it was changed to a census basis. *Wyo. Ses. Laws of 1895*, Ch. 44, Sec. 1, as amended by *Wyo. Ses. Laws of 1903*, Ch. 91, Sec. 6.

[36] *Rev. Stat. Ind. 1901*, Sec. 5973. For directions as to the making of this equalized apportionment see the *School Law of Indiana, with Annotations*, revision of 1903, pp. 163-164.

[37] See Chapter XI.

CHAPTER X

The Enrollment and Average Membership Bases

In the last chapter we pointed out, among the other defects of the census basis of apportionment, that it offered no premium whatever to a community to make any effort to secure a large enrollment or attendance. There is a very definite premium on a large census list, but the smaller the percentage of the so-called "scholastic population" which enrolls or attends, the larger the actual per-capita value of the state apportionment received. In tables No. 31-35, we showed the actual value of the apportionment on enrollment and attendance for a number of counties and cities in Wisconsin, Kansas, Missouri, California, and Indiana. To remedy this and other defects of the census method and to place a premium upon educational efforts rather than the opposite, a number of different plans have been tried by various states. We shall consider these in order. The first advance in this direction is the use of actual enrollment in the school as a basis.

THE ENROLLMENT BASIS.

It will be recalled from the preceding chapter that the percentage of the school census enrolled in the schools varied greatly for the groups of counties studied, in general being higher in the more rural counties and lower in the cities and in the counties containing cities. This consequently gave the cities, on a census basis of distribution, a larger sum of money per child actually provided for than the rural counties received. This may be shown by collecting, into a comparative table, selected data for the different groups of counties previously studied, calculating, for each state, the relation of enrollment to census for the two counties of the eight which contain the two largest cities, and calculating similarly for each state as a whole and for the four largest cities in each. In doing so we get the following comparative table:

(130)

TABLE No. 38.

PERCENTAGE OF CENSUS ENROLLED.[1]

(Calculated for the school year 1903-04 from statistical data given in the
Repts. of the Supts. Pub. Instr. of the respective states, and in part
collected from tables given in the preceding chapter.)

Item.	Wis. 4-20 Yrs.	Kan. 5-21 Yrs.	Mo. 6-20 Yrs.	Ind. 6-21 Yrs.
County of eight having largest city—				
County as a whole	51%	48%	78%	48%
County, city omitted	48%	45%	81%	57%
City alone	57%	54%	69%	42%
County having second largest city—				
County as a whole	65%	45%	80%	74%
County, city omitted	72%	40%	82%	73%
City alone	61%	53%	78%	80%
Two counties having no cities or large towns—				
First county	77%	86%	100%	83%
Second county	67%	90%	90%	76%
Four largest cities—				
Largest	41%	58%	48%	67%
Second	53%	63%	46%	46%
Third	52%	66%	27%	42%
Fourth	49%	54%	79%	66%
State as a whole	61%	*	74%	72%
City schools	52%	*	59% †	64%
Rural and town schools	65%	60%	88%	75%

* Sufficient data for calculation lacking.
† In Missouri, town schools are included with city schools.

[1] The counties and cities used in this table are, in the order used, the
following:

WISCONSIN.	KANSAS.	MISSOURI.	INDIANA.
Brown,	Bourbon,	Audrain,	Allen,
Ashland,	Atchison,	Adair,	Bartholomew,
Adams,	Barber,	Barry,	Benton,
Buffalo,	Chautauqua,	Bates,	Brown,
Milwaukee,	Kansas City,	St. Louis,	Indianapolis,
Racine,	Topeka,	Kansas City,	Evansville,
La Crosse,	Wichita,	St. Joseph,	Fort Wayne,
Oshkosh.	Fort Scott.	Springfield.	Terre Haute.

This table seems to indicate that the percentage of school population enrolled in the public schools in the larger cities is, in general, lower than in the towns and rural parts of the state. The private school enrollment is, on the other hand, greatest in the cities, and this probably more than makes up for the deficit in public school enrollment. Just how large the private school enrollment is for the cities in the above table we do not know, as the various state reports for these states furnish no complete data. All that is available is that for the four cities of Wisconsin, in the order given above, of all children between the ages of 7 and 14 years who attended any school for thirty-two weeks during 1903-04, 45% in Milwaukee; 20% in Racine; 29% in La Crosse; and 34% in Oshkosh were in private schools; and for the largest city in California (San Francisco), the percentage of total census in private schools was 21.6% in 1903-04. Further than this the State School Reports give no data from which calculations can be made.

The statistical tables in the Indiana State School Reports contain data which enable us to analyze the enrollment for that state still further, by distinguishing between the percentage of census enrolled in the rural schools, in the town schools, and in the city schools. Making this analysis for the first ten counties of the State, in alphabetical order, and adding on for comparison the two counties containing the two largest cities in the State, we get the next table:

TABLE No. 39.

PERCENTAGE OF CENSUS ENROLLED IN CERTAIN INDIANA COUNTIES.

(Calculated for the year 1903-04, from statistical tables 7a, 7b, 7c, of the *22d Bien. Rept. Supt. Pub. Instr., Ind.,* for 1903-04. This calculation is based on the census of April, 1904, the school census of 1903 not having been published.

Percentage of census, 6-21 years, enrolled.

Counties.	In all schools.	In rural schools.	In town schools.	In city schools.
Adams	69%	68%	79%	63%
Allen	48%	55%	78%	42% *
Bartholomew	74%	69%	90%	79%
Benton	83%	69%	98%	0%
Blackford	79%	74%	0%	83%
Boone	82%	76%	113%	93%
Brown	76%	74%	98%	0%
Carroll	80%	76%	110%	89%
Cass	70%	75%	82%	65%
Clark	69%	72%	94%	55%
Marion	68%	72%	0%	68% †
Vanderburg	48%	49%	0%	46% ‡
State average	72%	73%	112%	64%

* Third largest city in the State, Ft. Wayne.
† Largest city in the State, Indianapolis.
‡ Second largest city in the State, Evansville.

The percentage of enrollment here is nearly always highest in the towns. This is undoubtedly due in part to the presence of older "tuition pupils" from the rural-school districts, and to the stimulus given to school enrollment by the presence of a town high school. In six of the ten counties having cities, the enrollment in the city schools is lower than the average for the county, and also lower than the average for the town or the country schools. The average for Allen County is particularly low, due to the very low enrollment of the schools of Ft. Wayne. Vanderburg County, with the city of Evansville, is also very low throughout. Marion County, containing the city of Indianapolis, shows a half greater percentage of enrollment than either of the large cities and is rather an exception among the large cities of the country.

A comparison of the two preceding tables shows the great variability in the percentage of census enrolled in the different counties and cities of the same state, and serves further to em-

phasize the bad features of the census method of distributing funds. State money is given to all on the same basis without regard to what they do. As a basis for distribution, enrollment would be far more just. This may be seen if we translate the percentages of enrollment as given in Table No. 31-35, Chapter X, into relative values, by calculating what every dollar of state apportionment on the basis of census would be worth to the counties and cities on the basis of total enrollment. Doing this and arranging the values in a comparative table, we get the following:

TABLE No. 40.

WHAT $1.00 OF CENSUS APPORTIONMENT IS WORTH ON TOTAL ENROLLMENT.

(Calculated for the school year 1903-04 from the percentages given in Tables No. 31-35 and No. 38.)

Counties, in alphabetical order, and cities.	Wis.	Kan.	Mo.	Cal.	Ind.
1st	$1.30	$1.49	$1.25	$1.43	$1.45
2d	1.54	2.22	.97	1.28	2.08
3d	1.35	1.16	1.05	1.28	1.35
4th	1.35	1.54	1.28	1.17	1.20
5th	1.96	2.08	1.00	1.32	1.26
6th	1.49	1.19	1.07	1.20	1.22
7th	1.43	1.11	1.11	1.15	1.32
8th	2.00	1.16	1.29	1.28	1.25
Largest city	2.44	1.73	2.08	1.56	1.47
Second largest city	1.89	1.59	2.17	*	2.17
Third largest city	1.92	1.52	3.59	*	2.38

* Data for calculation lacking.

It is evident that a distribution of state aid on a basis of enrollment instead of school census would approach much more nearly to actual needs and efforts, at least so far as the larger places are concerned, and be far more just. Under the census basis Ft. Wayne, for example, received from the State $6.91 for every pupil enrolled while Indianapolis received [2] but $4.26. Similarly the city of Milwaukee received $4.24 for each pupil enrolled while the average for the schools of Adams County was [3] but $2.37. Likewise San Francisco received $14.79 for each

[2] From Table No. 35, Chapter IX.

[3] From Table No. 31, Chapter IX.

pupil enrolled while the average for each pupil enrolled received by Contra Costa County was [4] but $10.88. Under an enrollment basis this inequality would end, and each community would receive exactly the same amount for every pupil enrolled, and nothing whatever for any pupil not enrolled.

Enrollment, though, is open to certain serious objections, as a basis for the distribution of state aid. If mere enrollment for a day or a few days is all that is needed to secure state money on the pupil, not only could all transient enrollments be counted, but such a method would offer an incentive to communities to get as many pupils as possible enrolled, without offering any incentive to keep them in attendance. The temptations to swell the enrollment artificially would exceed the temptations to " pad " the school census. If enrollment were to be used as a basis for the distribution of funds, the state ought to require some definite minimum period of enrollment, and any limit laid down by law would probably be low rather than high.

In the matter of transfers from school to school, the enrollment basis would be no improvement over the census basis. Either communities would refuse to receive transferred pupils without compensation, or the state would be obliged to pay for the same pupils in two or three different school districts. The enrollment basis, like the census basis, offers no practicable means for the abolition of tuition charges between districts.

In the case of the small country districts, an enrollment basis would not prove an additional hardship, as might at first sight appear. So long as a school had the same percentage of the census enrolled as the state average it would make no difference at all, because the change from the larger number of census children to the smaller number of children enrolled would decrease the size of the divisor and proportionately increase the size of the quotient in determining the per-capita amount to be apportioned by the state. If the country schools could rise above the state average, as Table No. 38 seems to indicate that they, in general, do, then the country schools would gain instead of lose in a change from a census to an enrollment basis.

This may be illustrated quite well by the case of Wisconsin. Dividing the total amount of money apportioned for 1903-04 by the number of census children gives $1.82½ per census child, the

[4] From Table No. 34, Chapter IX.

amount of the per-capita on census apportionment for that year, as stated in Table No. 24, Chapter IX. But dividing the same sum by the total school enrollment for the same period gives $2.99 per-capita for an apportionment based on total enrollment. A requirement of forty days of enrollment before being allowed to count for the state apportionment would further increase the per-capita apportionment on enrollment. In Minnesota, where statistics for a forty-day enrollment exist, about fifteen per cent. of the total state enrollment has for some years failed to remain in school forty days.[5] Assuming that Wisconsin required a forty day enrollment and that the same percentage failed to remain in school for forty days as in the case of Minnesota, the per-capita apportionment, on a forty day enrollment, would become $3.52 in consequence. There being only so much money to go around, the smaller the number on which it is apportioned, the larger the per-capita apportionment. The product of the two is always the same.

This simple result is contrary to the opinion commonly held by school men. The counting for census money of all children too young or too old to attend the small country school has commonly been considered a great gain to the small districts and one of the marked advantages of the census basis of apportioning funds. This is not true, as has been just shown. The small country districts really lose, because their enrollment on census is usually higher than is the case in the cities. On a census basis of apportionment, the community which does not have its children in schools is the gainer; on an enrollment basis the reverse would be true. A change to an enrollment basis with a minimum enrollment period then would seem to be in the interests of justice and education, and would be a step in the direction of the equalization of burdens and advantages. Instead of paying communities in proportion to the number of children they have in their so-called " scholastic population," the state would pay on the number of that population who really attended a school, and a public school at that. The result of such a change would spur many communities to secure a larger enrollment, and to do something toward securing a better enforcement of the compulsory attendance laws. The census basis has

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[5] See Table No. 42, further on in this chapter.

required no such effort and many communities have grown very negligent in this respect.

Two states use enrollment as a basis for apportioning school funds, New Hampshire and Minnesota. In New Hampshire the minimum period has been fixed by law at ten days,[6] while in Minnesota it has been fixed at forty days.[7] South Carolina also uses total enrollment as a basis for apportioning any surplus money that may remain from the net income from the sale of liquors under the dispensary law, after equalizing the deficiencies in the various counties and deducting $5,000 for maintaining institutes.[8] The statistics given in the New Hampshire Reports do not tell how many pupils were enrolled for less than ten days, but a comparison of the number attending ten days with the number of children, 5-16 years of age, enumerated by the truant officers (census), on the one hand, and the number in average membership (average number belonging) on the other, will reveal something of the value of the two weeks' enrollment as a basis for apportioning funds. Taking the first county in the State, in alphabetical order, and calculating the percentages for each town from the data given [9] for the school year 1901-02, we get the following table:

[6] " The State Treasurer shall assign and distribute, in November of each year, the literary fund among the towns and places in proportion to the number of scholars, not less than five years of age, who shall, by the last reports of the school boards returned to the Superintendent of Public Instruction, appear to have attended the public school in such towns and places not less than two weeks within that year." *New Hamp. Pub. Stat.*, Ch. 88, Sec. 10.

[7] " The State Superintendent of Public Instruction shall make an apportionment of the available current school funds in the State treasury, among the several counties of the State, on the first Monday in March and October of each year, in proportion to the number of scholars between the ages of five and twenty-one years who have been enrolled and have been in attendance forty days in the public schools, that have had at least five months of term within the year, by a qualified teacher, and have reported according to law." *Rev. Stat. Minn., 1894*, Sec. 3759.

[8] " And if there shall be a surplus remaining of such net income, after such deficiencies have been equalized, it shall be devoted to public school purposes, and be apportioned among the counties in proportion to the enrollment in the public schools, as shall appear by the Report of the State Superintendent of Education for the next preceding scholastic year." *Code of Laws of S. Car., 1902*, Sec. 1235.

[9] *Rept. Supt. Pub. Instr. for New Hamp.*, 1901-02, statistical tables.

TABLE No. 41.

(Calculated for the school year 1901-02 from data in the *Bien. Rept. Supt. Pub. Instr., New Hamp.,* 1901-02, p. 204.)

Towns.	Census, 5-16 years.	Attended two weeks.	Per cent of census in Att. for two weeks.	Per cent of two weeks' enrollment in average membership.	Per cent of two weeks' enrollment in Av. Dy. Att.
Alton.............	181	215	119%	91%	83%
Barnstead........	172	185	107%	84%	75%
Belmont..........	235	231	98%	77%	68%
Center Harbor....	80	101	126%	75%	65%
Gilford...........	98	100	102%	86%	79%
Gilmanton........	213	220	103%	98%	90%
Laconia..........	1,435	1,448	101%	78%	74%
Meredith.........	214	280	131%	98%	89%
New Hampton....	110	145	132%	90%	77%
Sanbornton.......	154	179	116%	77%	66%
Tilton............	371	413	111%	94%	84%
Belknap County..	3,263	3,517	108%	85%	78%

It will be noticed that the percentage of census enrolled for two weeks varies greatly, but is nowhere less than 98%. It may be that the census was not carefully taken and is not complete; but if it is complete then this county has a remarkable record of enrollment. Half of the other counties of the state, however, show similar records. The averages for the different counties as wholes being as following: [10]

Belknap....................	108%	Hillsborough..............	75%
Carroll....................	103%	Merrimack................	105%
Cheshire...................	103%	Rockingham...............	98%
Coös......................	81%	Strafford.................	86%
Grafton...................	109%	Sullivan..................	106%
	State average.............93%		

The column in the above table which gives the percentage of enrollment for two weeks in average membership during the school year shows quite large variations, two of the towns being able to keep an average membership of 98% of the total enrollment, while four towns were hardly able to keep an average

[10] Calculated from data in the *Bien. Rept. Supt. Pub. Instr., N. Hamp.,* 1901-02.

membership of three-fourths of the number enrolled. The percentage of the enrollment in average daily attendance shows further variations, three towns showing a term average of less than seven pupils present each day out of every ten enrolled. The town having the highest percentage of census enrolled (Center Harbor) had the lowest percentage of that enrollment in average membership or in average daily attendance. Yet under the per-capita on enrollment basis each town shared alike for every one hundred pupils enrolled, though the average number belonging varied from seventy-five to ninety-eight, and the average number in daily attendance varied from sixty-five to ninety. Other New Hampshire counties show similar results.

The school statistics for the State of Minnesota give exact data as to the total enrollment and the enrollment for the minimum period of forty days required before such enrollment can be used as a basis for receiving state funds. The forty-day enrollment period in Minnesota is a decided advance, from a theoretical point of view, over the ten-day period of New Hampshire, because it puts a premium on communities making an effort to keep pupils in school long enough to probably get them interested in the school, and because the required period is long enough to discourage communities from trying to increase the enrollment artificially for a short minimum period, merely to be able to draw more state money.

The figures as to enrollment for the State of Minnesota as a whole, during the past five years, have been as follows:

TABLE No. 42.

TOTAL AND FORTY-DAY ENROLLMENT IN MINNESOTA COMPARED.

(From statistical data given in the *12th and 13th Bien. Repts. of the Supt. Pub. Instr., Minn.*)

	1900	1901	1902	1903
Total enrollment................	399,207	403,041	414,671	
No. attending 40 days or more...	341,181	341,441	353,612	
No. attending less than 40 days..	58,026	61,600	61,059	
Percentage attending less than 40 days...........................	14.5%	15.3%	14.7%	

Analyzing the returns for the first eight counties in the State, as arranged in alphabetical order, and comparing these with the two counties having the two largest cities and with the average

for the State as a whole, we get, by calculating the percentages, the following results:

TABLE No. 43.

TOTAL ENROLLMENT AND FORTY-DAY ENROLLMENT COMPARED FOR CERTAIN
MINNESOTA COUNTIES.

(Calculated from Table No. IV, p. 126, of the *12th Bien. Rept. Supt. Pub. Instr., Minn.*, 1901-02.)

Counties.	Percentage of enrollment entitled to apportionment.		Percentage of enrollment not entitled to apportionment.	
	Ind. and Sp. districts.	*Com. Sch. districts.*	*Ind. and Sp. districts.*	*Com. Sch. districts.*
Aitkin.....................	93%	78%	7%.	22%
Anoka.....................	93%	84%	7%	16%
Becker....................	89%	74%	11%	26%
Beltrami..................	83%	76%	17%	24%
Benton....................	84%	83%	16%	17%
Big Stone.................	86%	76%	14%	24%
Blue Earth................	93%	82%	7%	18%
Brown.....................	91%	86%	9%	14%
Hennepin *................	94%	87%	6%	13%
Ramsey †..................	91%	87%	9%	13%
State average.............	92%	81%	8%	19%

* Includes the city of Minneapolis.
† Includes the city of St. Paul.

A similar calculation for all the eighty-two counties of the State shows a similar result. The independent and special school districts in more than one-half of the counties averaged a percentage of enrollment of over ninety per cent. entitled to apportionment, while in only one county did the common school districts reach an average of ninety per cent. and a number were below seventy-five per cent.

It is very evident from the above table that the towns and cities of Minnesota are able to hold a much larger percentage of their enrollment for forty days than the country districts. This is rather surprising, as the shifting population is much larger in the cities, and the minimum time required is so small that one would suppose that in the country districts each pupil who enrolled would be able to attend at least forty days during the entire term, which in these districts varied, during 1901-02, from one hundred and twenty to one hundred and sixty days, the average being one hundred and thirty-eight days.

This may be compensated for, in part, by the country districts

enrolling a larger percentage of the children 5-21 years of age than do the cities, as was the case in other states, but this cannot be determined for Minnesota because the State has no published school census. If this is true, the country districts could lose twenty per cent. of their enrollment to the cities' ten per cent., and still draw state money on a larger percentage of the total school census than the cities. However that may be, the cities are about ten per cent. more successful in keeping for forty days those who enroll in their schools, and hence deserve the additional premium which they receive for it.

The figures for New Hampshire and Minnesota indicate a marked educational advantage of the enrollment basis over the census basis of apportionment, in that the enrollment basis places a premium on communities making an effort to get pupils into the schools instead of merely getting their names on the annual census lists. Many of these pupils remain some time, once they are in the school, the number remaining being greater in some communities than in others. The method places no premium, however, on the communities making an effort to keep the pupils in school beyond whatever short period the state establishes as a requisite for the apportionment of "enrollment money." From an educational point of view, this is a marked defect. The smaller the minimum time required to draw "enrollment money" the more defective is the use of enrollment as a basis for apportionment, and the greater the temptation to communities to artificially swell their school enrollment. A study of the last two columns of figures in Table No. 41 would seem to indicate that the enrollment basis as used in New Hampshire is but little better than the census basis, and that either average-membership or average-daily-attendance would be a much better test of the educational efforts made by a community and the actual service rendered by its schools. In fact, whatever may be the history of the evolution of an apportionment basis in the different states, enrollment as a basis for apportionment must be regarded as only an intermediate step in the state's evolution from a census basis of apportionment to a more just system. The next step would be the use of average-membership (average-number-belonging), though most states which have abandoned the census basis have gone direct to some form of the next higher step, that of using average-daily-attendance, without stopping at any of these intermediate steps.

The Minnesota requirement of a forty-days enrollment before being counted for state apportionment is an approach toward the average-membership or average-number-belonging basis. The use of average-number-belonging as a basis for apportionment is an effort to measure the work of a school by the average number it can keep enrolled during the entire school term. It not infrequently happens in many of our cities that the number enrolled at the opening of the school is comparatively large and that the schools are crowded, while toward the close of the year the enrollment drops very materially and most of the schools have plenty of vacant seats. In the country schools the enrollment is usually highest during the winter and lowest in the autumn and spring. The average-number-belonging basis, instead of paying for the number who remain ten days or forty days, pays for the average number who remain throughout the entire school year. To illustrate, let us suppose that a group of four schools, each of which had a six months term and a total enrollment during the school year of 100 pupils, had the following average-number-belonging each of the six months of the school term, and let us further suppose that the state apportionment was equal to $3.00 per pupil in average-membership. We then get the following result:

TABLE No. 44.

AVERAGE MEMBERSHIP IN FOUR DIFFERENT SCHOOLS COMPARED.

Month.	*School A.*	*School B.*	*School C.*	*School D.*
First......................	96	83	96	94
Second....................	97	88	98	90
Third......................	94	94	90	81
Fourth....................	92	98	83	70
Fifth......................	88	95	79	60
Sixth......................	85	94	76	57
Av. No. belonging [11]	92	92	87	77
Income per school @ $3.00 per pupil in average membership.................	$276.00	$276.00	$261.00	$231.00

[11] These averages are only arithmetical averages for the six months. Practically there might be a slight difference between the actual average membership for the year obtained by a careful count for the six months, but for illustrative purposes the difference is negligible.

Under a forty-day or a sixty-day enrollment appropriation basis, each of the above schools would receive about the same amount, as each would have an enrollment of about 95 pupils during such a minimum period. Under an average-membership basis of apportionment, however, the results would be quite different. School A would lose because of the decrease of membership during the last two months, while School B would lose chiefly because of a low enrollment or membership at the beginning of the term. Schools C and D would lose very materially because of a very rapid decrease in membership after the first two months.

Under this basis of apportionment, each community would be paid by the state both in proportion to its success in securing a large enrollment and in proportion to its success in keeping a large percentage of those enrolled in membership in the school during the term. The premium is placed not only on enrollment, on enrollment for a minimum term, but on continuous membership during the entire term. The effect is to put a premium on the efforts which a community makes to keep up its enrollment throughout the year. The tendency of this is to place a premium on good schools, good teachers, interest taken to get children into the school and to keep them there, and the enforcement of the compulsory attendance and child labor laws.

The use of average-membership also makes it possible, for the first time, to dispense with the customary tuition charges between districts. A pupil might be enrolled in one school or five schools during the year without the state's total being affected, the state paying for but one pupil in any case. That pupils might want to leave a small and poor school and go to a better one elsewhere is not a matter that the state need to consider, provided the state first makes sufficient provision for the payment of the teacher for the school. So long as the school's state income is wholly dependent upon the number of pupils in the school it may be desirable to prevent pupils from leaving a school for a better one elsewhere, but with a rational system of apportionment this can be left to care for itself. If a better teacher in the school will not stop the depletion, then the state should abandon the school, transport the children, and annex the district for taxing purposes to the district to which the pupils go. There are many communities where the abolition of the inter-

district tuition fees would speedily result in a concentration of schools.

Practically, however, the use of average-membership as a basis for apportionment is open to certain serious objections, and is not used by any state as a basis for apportioning funds. However desirable it may be to have pupils belong to the school during the entire year, belonging to a school and being there may be two entirely different things. This is well illustrated in the case of Belknap County, New Hampshire (Table No. 41). The table shows that while the schools of the county enrolled an average of 108 pupils for every 100 pupils reported by the enumerators, only 85 out of every 100 who attended two weeks remained in average-membership throughout the year, and further calculation shows that only 78 out of the 85 remaining in average-membership were present on an average each day. Among the individual towns the percentages varied much more. This county had the highest percentage of average-daily-attendance on its average-membership of any county in the state. In the next county, alphabetically (Carroll), the percentage of the membership in daily attendance was 86 for the county as a whole, and the different towns had the following percentages of their membership in average attendance during the same year :[12]

73	90	80	87	86	79
80	84	94	93	82	89
85	91	85	83	84	

These averages show that the different towns of this county looked after the attendance of their pupils very differently, the first town averaging but 73 present out of every 100 in average-membership, and the eighth town averaging 94 present out of every 100 in average-membership. Under an average-membership basis of apportionment, each of the above towns would have fared alike for every pupil belonging to the schools, though the number of those belonging to the schools who were in attendance each day, as the above figures show, varied greatly.

The chief defect of the average-membership basis is that while offering a good incentive to communities to keep pupils enrolled in the schools, it offers no incentive to the schools to see

[12] *Rept. Supt. Pub. Instr., N. Hamp.*, 1901-02. p. 211.

that the pupils attend regularly, and rather places a premium no allowing irregular attendance for the sake of keeping the name on the rolls. Doubtless the school pride of the teachers and school authorities would in most cases remedy this defect, but the method is theoretically wrong in that it opens the way to abuses which the state ought to place a premium against. The rules for calculating average-number-belonging vary in different states. A common method is to count a pupil as belonging to the school until he has been absent five days or is known to have withdrawn. The time is seldom lower than three days. Under a five-day plan it would be possible for a pupil to attend school but one day a week, say every Monday, and be counted for the month as one whole pupil in average-membership, while under an average-daily-attendance basis he would count as but four-twentieths of a pupil. Theoretically the pupil belonged to the school and his seat was saved for him; practically he kept no one else from attending the school, the school spent no effort in instructing him, and the school need make no effort to have him attend more regularly. Irregular attendance is thus placed on the same basis as regular attendance in the apportionment of school money. This ought not to be. The state ought to place a penalty rather than a premium on what is one of the most serious interferences with the proper advancement of pupils in school work. Daily attendance is a much more rational basis for apportioning funds than average-membership, and most states which have changed from the census basis have passed to it direct.

AVERAGE DAILY ATTENDANCE.

Under this basis of apportioning school funds the state pays communities for the exact number of pupils which they really teach. School census and total school enrollment are not directly considered; the important consideration now becomes the actual number of pupils at school each day. The premium is now placed by the state not only on enrollment and retention of membership in the school, but upon regularity of attendance after the pupil becomes a member of the school. If a school has a large enrollment and a low daily attendance it becomes the duty of the school to try to secure a more regular attendance if it desires to receive more state money. The state pays for all who are in attendance, but not for those who ought to be and are not. This basis of apportioning funds thus gives a strong incentive to communities to provide those educational conditions which will induce a large percentage of the school census to attend the public schools, and to appoint attendance officers to enforce the attendance and child-labor laws. To the teachers and school authorities it offers an additional inducement to follow up all cases of irregular attendance, with a view to effecting an improvement. This may be over-done, of course, but there is less danger from this than from neglect. All communities may not do these things, but the state premium is on such efforts, and such efforts are in the interests of good education.

Average daily attendance is found by counting up the total number of days of attendance for the school month, or school year, and dividing this by the number of days of school during the period considered. To illustrate, let us take Schools A and B, Table No. 44, for the third month, when the average number

belonging (average membership) was 94 in each school, and assume that the daily attendance for each school was as follows:

TABLE No. 45.

AVERAGE DAILY ATTENDANCE FOR TWO SCHOOLS COMPARED.

SCHOOL A.

First week.	Second week.	Third week.	Fourth week.
94	82	91	94
93	74	94	96
94	79	96	83
95	88	94	89
95	94	91	94

SCHOOL B.

First week.	Second week.	Third week.	Fourth week.
94	80	91½	91
92	60	92	94
90½	77½	87½	73½
92½	86½	94	89½
94	94	90	94

Adding and averaging the above, we get the following:

	School A.	School B.
Total days attendance for month	1,810	1,760
Average daily attendance	90½	88
Percentage of average daily attendance on average number belonging	96.1%	93.7%

If we now assume that the state apportionment per pupil in average daily attendance is $3.60 per year, or $.60 per pupil per month for a six months term, we get the following table of income on the average daily attendance basis.

	School A.	School B.
Received per pupil in average daily attendance—		
(a) Per month	$0.60	$0.60
(b) Per day	.03	.03
Received for the third month—		
(a) If all belonging had been present	56.40	56.40
(b) On average daily attendance	54.30	52.80
(c) Loss through absence during month	2.10	3.60
(d) Average loss per day	.10½	.18
(e) Loss through absence second week	1.59	2.20

A loss of three cents a day per pupil does not seem large, and if a community chooses to neglect it it is privileged to do so. The loss however, falls wholly on the community. Under any previous apportionment basis it would fall on the state. Three cents a day, though small, is a larger amount than it at first thought appears. Let us assume that Schools A and B each had three teachers, each teacher paid $50 a month for a six months term, and that the other expenses of each school were $100 for the year. This would equal $1000 per school, or $8.33 per day, and $.09 per pupil on average number (94) belonging. Three cents per day per pupil would thus be one-third of the expense of the school. In a city with 5,000 pupils belonging to the schools, and an income from the state funds of $.03 a day for every pupil in average daily attendance, every loss of 1% in attendance equals a loss of $1.50 per day to the schools.

Under the census basis of apportionment, any money spent by a city for attendance officers is a financial outlay which the city must meet entirely from its own treasury, but with a state reward of three cents a day for every pupil put in the schools by an attendance officer or kept in the schools because of his employment, a city could easily pay his salary from the additional income which his services or his presence would bring in. The additional teacher required to teach the children so put or kept in school would still have to be paid by the community, except as there might be a surplus after paying the attendance officer; but under a rational system of apportionment, as we shall point out later, the state could and should place a premium on the addition of teachers to the school as well as on the addition of children. One important reason why the attendance laws are not enforced better than they now are by the cities and towns is that the total expense of enforcing these laws and of providing teachers for the additional children falls, in most states, entirely on the community, the state offering no premium whatever for such work. This is neither wise nor just.

The question of importance is, would an average daily attendance apportionment basis be equally just to the city, town, and country schools, and how would each fare under such an apportionment basis? An inspection of Tables No. 32, 33, and 34, in Chapter IX, will show that the relation of average daily attendance to total school population (census) is somewhat irre-

gular. Doubtless enrollment and average daily attendance would show a much more constant relation, as about a certain proportion of those who become members of the school would probably continue in regular attendance, though this proportion would bear no definite relation to the number who are of school age. To ascertain whether or not average daily attendance bears any close relation to enrollment we compile a table showing comparatively the percentage of the school census enrolled and the percentage of this enrollment which was in average daily attendance at school throughout the school year, using the two states whose school reports contain the most complete statistical data for such a calculation. The same first eight counties, alphabetically, and the same three largest cities are used which have been used in the preceding tables.

TABLE No. 46.

PERCENTAGE OF CENSUS ENROLLED AND PERCENTAGE OF ENROLLMENT IN AVER-
AGE DAILY ATTENDANCE COMPARED FOR TWO STATES.

(Percentage of enrollment taken from preceding tables; average daily attendance calculated from statistical data given in the *Repts. State Supts. Pub. Instr.* for the years indicated.)

	Missouri, 1904.		Indiana, 1904.	
Counties, in alphabetical order.	*Per cent of census, 6–20 Yrs., enrolled.*	*Per cent of enrollment in Av. Dy. Att.*	*Per cent of census, 6–21 Yrs., enrolled.*	*Per cent of enrollment in Av. Dy. Att.*
First......................	80%	61%	69%	76%
Second...................	103%	47%	48%	74%
Third....................	95%	64%	74%	72%
Fourth...................	78%	71%	83%	74%
Fifth.....................	100%	54%	79%	70%
Sixth.....................	93%	63%	82%	80%
Seventh..................	90%	72%	76%	80%
Eighth...................	77%	62%	80%	81%
Three largest cities—				
First.....................	48%	75%	67%	73%
Second..................	32%	62%	46%	80%
Third....................	27%	83%	42%	77%
State as a whole..........	74%	63%	72%	75%
(*a*) Rural schools......	88%	58%	75%	74%
(*b*) Town schools......	59%	71%	64%	77%

In the Missouri tables it will be noticed that the two counties having the lowest average daily attendance had an enrollment

of 100% and 103% of census. The low percentage of attendance was to be expected. Each, however, is not far from equivalent to an average daily attendance of 65% on an enrollment of 80%, which is near the average for these eight counties and for the state. The Indiana counties and cities, though differing widely in percentage of census enrolled, are fairly uniform in the percentage of the enrollment which remained in average daily attendance, notwithstanding that the city school term is about one-half longer than that of the county schools.

The statistical tables in the Indiana report enable us to separate the last column of percentages and calculate the percentage of average daily attendance on enrollment for rural, town, and city schools. Doing this for the first ten counties, alphabetically, and for the two counties containing the two largest cities, and arranging the percentages in a comparative table, we get the following result.

TABLE No. 47.

CENSUS, ENROLLMENT, AND AVERAGE DAILY ATTENDANCE COMPARED FOR CERTAIN INDIANA COUNTIES.

(Calculated for the school year 1903-04, from statistical tables 7a, 7b, 7c, *Rept. Supt. Pub. Instr., Ind.*, 1904.)

Counties.	Percentage of census, 6–21 years, enrolled.	Percentage of total enrollment in Av. Dy. Att.			
		In all schools.	In rural schools.	In town schools.	In city schools.
Adams............	69%	76%	74%	79%	79%
Allen.............	48%	74%	69%	83%	78% *
Bartholomew......	74%	72%	69%	75%	75%
Benton...........	83%	74%	70%	82%	0%
Blackford.........	79%	70%	64%	0%	73%
Boone............	82%	80%	83%	85%	71%
Brown............	76%	80%	79%	85%	0%
Carroll...........	80%	81%	80%	79%	94%
Cass.............	70%	82%	80%	88%	80%
Clark............	69%	78%	80%	80%	75%
Marion...........	68%	74%	77%	0%	73% †
Vanderburg.......	48%	75%	67%	0%	78% ‡
State average.....	72%	75%	75%	80%	74%

* City of Ft. Wayne, third largest city.
† City of Indianapolis, largest city.
‡ City of Evansville, second largest city.

The general uniformity in these percentages is noticeable.

The town schools are a little higher, but, as was pointed out in considering a similar table under Chapter IX, (Table No. 35), this is partly due to the presence of "tuition pupils" from the rural schools. On an average, whatever per cent. of the census enrolled, about seventy-five out of every one hundred of those enrolled are in attendance at school each day throughout the school year. As the city term is nine to ten months to the country term of six to seven months, and as there is always a tendency for the attendance to drop off toward the end of the year, it is evident that the cities of Indiana are somewhat more successful in securing attendance during a corresponding number of months than are the country districts.

The percentages of average daily attendance on enrollment have been calculated to show something of the relation existing between the two. As a matter of fact, average daily attendance, when expressed in a percentage, is generally calculated on the average membership and not on the total enrollment. This gives a somewhat equally constant percentage. For the fifty-seven counties of California,[1] for example, this percentage was:

In 1 county........... 88%		In 15 counties........ 93%
In 2 counties......... 91%		In 20 counties........ 94%
In 9 counties......... 92%		In 10 counties........ 95%

The percentage of average daily attendance, however calculated, is useful only as an index of regularity. It cannot be used as a basis of apportionment, because it does not take into consideration the number of children. A large city and a small country district might have the same percentage of average daily attendance, while the number of children taught in one would be a thousand times the number taught in the other. We have calculated the percentages to show that, at least for the groups considered, the percentage of enrollment and of average membership in daily attendance do not materially vary.

This would indicate that the main factor to be looked after is the enrollment, and it would further indicate that the actual number of children in daily attendance at school is a much more constant quantity than either enrollment or average membership. The problem for the city, the town, and the country district then would seem to be to provide those conditions and

[1] *21st Bien. Rept. Supt. Pub. Instr.*, Cal., 1904, p. 165.

teachers which will first attract a large enrollment to the public school, and which will keep as large a percentage as possible of this enrollment in school during the entire year. By using average daily attendance as a basis for the apportionment of funds, the state thus places a premium on all those things which go to make a public school system attractive, such as good buildings, no over-crowded classes, well-trained and well-paid teachers, good kindergartens, manual training, good high schools, and, last but not least, a public pride in the school system maintained. A premium is also placed on the enforcement of the compulsory attendance and child labor laws. One of the best means of getting a law enforced is to make it an object to a community to enforce it. The system is one of " payment by results," but instead of paying on the basis of the number of " passes " in Geography and Arithmetic, as the English did for so long in their elementary school system, the state pays so much each for the average number of children kept in school every day of the school year. If a community wants more money from the state in return for its taxes let it make a greater effort to get more children into the public schools and to keep them there.

There are at present many cities where the percentage of the school census enrolled in the public schools is less than fifty per cent., where the private school enrollment is large, where the best citizens set an example by sending their children to private schools, and where a strong public school spirit is lacking. Mere personal zeal on the part of the school superintendent cannot alone counteract these tendencies. The state should make it a real financial object to such communities to build up their public school system.

Of course the effort to get attendance may be overdone by the school authorities, and pressure may be exerted to keep children in school when they would better be at home. The good sense of parents, however, serves as something of a corrective to a tendency in this direction, and in any event the bad results are likely to be much less than under a method where no emphasis is placed on attending the school.

The problem is the same for the country school as for the city school. If the parents of the children think that their boys are worth more to them while planting corn or burning stumps than while attending school, then the state ought to require

such parents to pay part of the profits of such labor into the school treasury in the form of an increased school tax to make up for what the state should refuse to give for such absence from school. That these boys, though of school age, may be needed at home and may be learning valuable lessons while helping their fathers is not a plea to which the state can give any consideration. The state's business is to help communities provide for the education of their children, and the education of the children, from the point of view of the state, does not take place when the children are absent from the school which the state provides. By paying communities for so many children of an arbitrarily determined " school age," regardless of whether these children attend school regularly, or even at all, the state occupies a purely negative position. While not actually encouraging absence, it does nothing whatever to encourage attendance.

Whether or not a community pays more school tax to the state than it receives in return is not a matter with which we have any concern. This is a matter of educational and fiscal policy which was settled when the state decided that " the wealth of the state should help to educate the children of the state." If the question of " taxes paid " is to be brought to the front, we begin again the discussion of whether or not we shall have a state school system or only a series of local systems. That question was settled in most states long ago; the question of to-day is what amount of aid shall the state give and how can it distribute this aid so as best to equalize the burdens and the advantages of education.

As to the small country districts, these would receive the same amount of money from the state on the average daily attendance basis of apportionment as on the census basis, so long as their average daily attendance did not fall below the average for the state. As was pointed out in discussing the enrollment basis, there is only so much money to go around, hence the amount received under an average daily attendance basis of apportionment would be the same as under a census basis, provided the district had as high an average daily attendance as the average for the state. If it had a higher average it would gain, if a lower it would lose. A country district has the same chance to gain that the towns and cities have, and under this basis of apportionment

the state will reward any efforts made toward better attendance, as well as punish carelessness in this regard.

Let us now see how the country districts and the cities would fare under the average daily attendance basis of apportionment, using only the same funds as now provided.

In Table No. 24, Chapter IX, we showed how a series of country districts in Wisconsin, varying in size from a census of 11 to 137, would fare under the census basis of apportionment, at the rate for 1903-04. In Chapter X we showed that this apportionment of $1.82½ on census was equal to a state apportionment of $2.99 on total enrollment, and to a state apportionment of $3.52 on a forty-day enrollment, calculated on the Minnesota state average of 15% of the pupils enrolled failing to remain in school forty days. These would be the state average apportionments on such bases. In the common school districts, however, 19% of the enrollment fails to remain forty days (Table No. 43, Chapter X), so in any calculations for country schools alone we must deduct 19% from the enrollment instead of 15%, before multiplying by the apportionment of $3.52. To avoid fractional numbers in calculating the next table we will deduct 20% for country schools instead of 19%.

The Wisconsin school reports do not give any data from which the percentage of average daily attendance on enrollment can be calculated for the counties. For the cities under city superintendents, it was 75% in 1903-04.[2] This is about the same as in Indiana. (See Table No. 46). To continue the table previously used for Wisconsin, let us assume that for the entire state the average daily attendance for 1901-02 was 72% of the total enrollment. If the state apportionment on census of $1.82½ would have been worth $2.99 on total enrollment, then it would be worth $4.15 on an assumed state average daily attendance of 72% of the enrollment. This, though, is for the state as a whole. The cities had an average daily attendance of 75%, as stated above, and they represent about two-fifths of the total enrollment. This would give an average daily attendance for the towns and country districts of 70% of their enrollment, which the next table shows to be about right. Now to find what a series of

[2] Calculated from data given in the *Bien. Rept. State Supt. Pub. Instr., Wis.,* 1903-04, statistical tables, p. 116.

Wisconsin school districts of a certain size would receive on an average daily attendance basis, we take 70% of the enrollment and multiply it by $4.15.

TABLE No. 48.

SHOWING WHAT SMALL COUNTRY SCHOOLS OF CERTAIN SIZES IN WISCONSIN WOULD RECEIVE UNDER CERTAIN PLANS OF APPORTIONMENT, BASING CALCULATIONS ON TOTAL APPORTIONMENT, CENSUS, ENROLLMENT, AND ESTIMATED AVERAGE DAILY ATTENDANCE.

(Calculated for 1903-04 from statistical data given in the *Rept. Supt. Pub. Instr., Wis.*, 1903-04. See similar preceding tables. The different apportionment values are calculated on the state averages, but the percentages used in the table are those for town and country schools only.)

Census, 4-20 years.	Enrollment at State average without cities, of 65%.	Census, 4-20 years of age, @ $1.82½.	Total enrollment @ $2.99.	Forty-day enrollment with 20% loss, @ $3.52.	Av. Dy. Att. @ 70% of enrollment, and @ $4.15.
11............	7	$20.08	$20.93	$21.12	$20.75
16............	10+	29.20	29.90	28.16	29.05
23............	15	41.98	44.85	42.24	41.50
31............	20+	56.38	59.80	56.32	58.10
39............	25+	71.18	74.75	70.40	70.55
46............	30	83.95	89.70	84.48	87.15
62............	40+	113.15	119.60	112.64	116.20
77............	50	140.53	149.50	140.80	145.25
92............	60—	167.90	179.40	168.96	174.30
108............	70+	197.10	209.30	197.12	203.35
123............	80	224.48	239.20	224.38	232.40
137............	89	250.03	266.11	249.92	257.30

This table shows that even after making allowance for the differences between state averages, city averages, and country averages,[3] the small country district really does not profit by the wide school census limits on which the census apportionment is based, but would receive practically as large an apportionment of funds under either the forty-day enrollment basis as used in Minnesota, or the average daily attendance basis, as used in Flor-

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[3] The difference between the total state average percentage and the average percentage after excluding the cities should be carefully kept in mind. The former is used to calculate the different per capita apportionment values, because the apportionment must go to the state as a whole on that basis; the latter is used in determining the total receipts in the above table, because it is a table calculated for small schools, and on the averages for small schools.

ida. This, of course, has been figured out on the basis of the statistics given for Wisconsin for 1903-04, as explained in preceding pages, but will hold approximately true for almost any state.

The exact value of the state census apportionment used in making a calculation for some other state would make an actual, but no relative difference. The proportions of the above table would hold true for any size of apportionment. We could have used $1.00 as the basis just as well as $2.18. Using $1.00, the relative values would be : [3]

(1) Value on total state census......................$1.00 per capita.
(2) Value on 60% state enrollment..................... 1.66 "   "
(3) Value on 40 days, 15% loss of enrollment........... 1.95 "   "
(4) Value on Av. Dy. Att. @ 75% of the enrollment.... 2.21 "   "

For a $3.00 census apportionment, multiply each of these values by three ; for a $5.00 apportionment, multiply them by five.

Not only are the relative amounts of Table No. 48 not influenced by the size of the census apportionment, but the relative amounts received are further not influenced by the percentages for enrollment and attendance which are used. A district of a certain size will always receive the same amount of money under any one of the four bases of apportionment considered, regardless of what the state percentages may be, so long as the percentages of enrollment and attendance for the district are neither below nor above the averages for the state as a whole, and any variation above or below the state averages will mean a corresponding increase or a decrease in the state funds received.

This will be evident from the following simple example, in which we suppose four schools of the same census size, but in two different states having different state average percentages of enrollment and attendance.

TABLE No. 49.

APPORTIONMENTS OF FOUR SCHOOLS COMPARED ON THE CENSUS, TOTAL ENROLL-
MENT, FORTY-DAY ENROLLMENT, AND AVERAGE DAILY
ATTENDANCE BASES.

	State No. 1.		State No. 2.	
	Per cent.	Number.	Per cent.	Number.
Total school census of each district.	100%	40	100%	40
Per cent of census enrolled........	75%	30	80%	32
Loss on a forty-day enrollment....	15%	25.5	19%	25.9
Av. Dy. Att. on enrollment—				
The general state average........	60%	18	75%	24
Averages of Districts A and B..	70%	21	85%	27.2
Averages of Districts C and D..	50%	15	65%	20.8

On a basis of a per-capita on census apportionment of $1.00 this
gives the following per-capita values for the state apportionment
in each state:

	State No. 1.	State No. 2.
Apportionment on census......................	$1.00	$1.00
Apportionment on total enrollment.............	1.333+	1.25
Apportionment on forty-day enrollment.........	1.569+	1.543+
Apportionment on average daily attendance.....	2.222+	1.666+

Using the above values for calculation we get the following for a
school of forty census children, calculated on the state averages:

	On census.	On total Enrollment.	On forty-day Enrollment.	On Av. Dy. Att.
State No. 1..................	$40.00	$40.00	$40.00	$40.00
State No. 2..................	40.00	40.00	40.00	40.00

This is only a natural result. There being only so much
money to be distributed, a school, whatever its size, will always
get the same amount of money on any basis of distribution,
so long as the average for the school is the same as the average
for the state. It is only when the school varies from the state
average that it gains or loses. This may be shown by making
similar calculations for the four schools A, B, C, and D, which
varied from the state averages in average daily attendance, as
given above. Doing this, we get the following result:

			On average daily attendance.	
District.	On census.	On enrollment.	State No. 1.	State No. 2.
A......................	$40.00	$40.00	$46.66	......
B......................	40.00	40.00	......	$45.33
C......................	40.00	40.00	33.33	......
D......................	40.00	40.00	......	34.66

Under the census basis of apportionment a school is always on the state average, regardless of whether it makes any educational effort or not, but under the three other bases of distribution considered, it may be on the state average, it may be ahead of the state average, or it may be behind the state average, depending largely on the efforts it makes for itself. The chief value of the average daily attendance basis of apportionment is that it places a premium on every day of attendance at school, and a community is given a financial incentive to do its best every day. Any community which can rise above the average for the state is certain to receive a financial reward, and any community which falls below the state average will be penalized in proportion to its deficiency. It ought to be made a matter of local pride in every community to try to keep up with the average of the state.

The state of Florida uses average daily attendance entirely as a basis for the apportionment of income from state funds and the state one-mill tax, having changed from the straight census basis to the average daily attendance basis by amending the constitution [4] of the state, in 1894. Average daily attendance is also used as a partial basis upon which the county apportionment is made in Arizona [5] and California.[6] After June, 1905, California will use average daily attendance, also, as a partial basis for the apportionment of state funds to the counties, the census basis, which has been used in making the state apportion-

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[4] *Constitution of Florida*, Art. XII, Sec. 7. This section, previous to 1894, required a distribution to the counties on the basis of the number of children in each, six to twelve years of age. The change was made in an attempt to better equalize the tax apportioned to the counties. See *Bien. Rept. Supt. Pub. Instr.*, Fla., 1902, pp. 46-47.

[5] "He (the County Superintendent) must then (after setting aside the amount directed by law to be set aside on other apportionment bases) ascertain the average attendance of each school during the previous school year, and apportion to each district showing an average attendance of more than twenty-five children, not less than $20.00 per capita on the average attendance in excess of twenty-five." *Public Laws of Ariz.*, Title 17, Ch. 16, Sec. 128, div. 2.

[6] "Fourth. All school money remaining on hand after apportioning to the districts the moneys provided for in subdivision 3 of this section, must be apportioned to the several districts in proportion to the average daily attendance in each district during the preceding school year." *Political Code of Cal.*, Sec. 1858, div. 4.

ment up to the present time, being in large part abandoned. Arizona and California, however, belong to the combination type and will be referred to again in a later chapter.

The way in which the rewards and penalties above referred to would be distributed may be shown by a few actual cases. We will take as the first illustration one of the small counties of Montana for the year 1901-02. This county contains the city of Butte with 183 teachers, two districts with 2 teachers each, and 7 single teacher districts. The average daily attendance for the state was 48.7% of the school census [7] during 1901-02, and the state apportionment from the income from the state school fund and state school lands for the year was equal to $9.85 on census,[8] or $20.23 on an average daily attendance basis of 48.7%. Naturally a district having less than 48.7% of its census in average daily attendance would lose, and one having more than 48.7% would gain. Calculating, we get the following table:

[7] In reality this apportionment was made on the census of 1901, and if attendance were the basis used, would have been made on that for the school year 1900-01. The attendance figures as given for the year 1900-01, however, are so full of self-evident errors that I use the census and attendance figures for the year 1901-02, which appear to be reliable, and assume that the per-capita value of the state apportionment would be the same as for the year previous. This may cause slight variations in the actual amounts, but relatively it will make no difference, the proportions being true whether the census apportionment is $9.85 or any larger or smaller amount.

[8] The $9.85 census apportionment is found by adding the " Proceeds of School Lands " ($114,726.69) to the " Amount Apportioned to Counties during the Year " ($493,235.69), as given on page 378 of the *7th Bien. Rept. Supt. Pub. Instr., Mont.*, and dividing this sum by the number of census children (61,728) on which the apportionment was made. This sum must be apportioned to the districts on census, as required by the constitution of the State. " The interest on all invested school funds, and all rents from school lands, shall be apportioned to the several school districts of the State in proportion to the number of children and youths between the ages of six and twenty-one years, residing therein." *Constitution of Mont.*, Art. XI, Sec. 5. The amounts actually received by the districts during the year are slightly larger than the above, due to the addition of some other items.

TABLE No. 50.

Name of district.	School census, 6-21 years.	Average Daily Att.	Per cent of census in Av. Dy. Att.	Value of State apportionment.	
				On census (at $9.85.	On Av. Dy. (at $20.23.
Butte............	11,249	5,580	49.6%	$100,802.65	$112,883.40
Burlington.......	110	65	59.1%	1,083.50	1,314.95
Silver Bow.......	102	37	36.3%	1,004.70	748.51
Divide...........	23	11	47.8%	226.55	222.53
Melrose..........	86	33	38.4%	847.10	667.59
Brown's Gulch...	22	13	59.1%	216.70	262.99
Fish Trap........	15	10	66.6%	147.75	202.30
Feeley...........	19	9	47.4%	187.15	182.07
Meadow Gulch...	35	18	51.4%	347.75	364.14
Ralston..........	14	9	64.3%	137.90	182.07

The state average percentage of average daily attendance on census, for 1901-02, was 48.7%, as stated above. The city of Butte, because of being nine-tenths of one per cent above this average, would have received about $2,000 more money on an average daily attendance basis of apportionment than it received on the census basis, while Divide District would have lost about $4.00 for being nine-tenths of one per cent below. The extreme cases among the single teacher districts are Fish Trap, which would have received a premium of $54.55 for its high daily attendance, and Silver Bow, which would have lost $256.19 on account of its low daily attendance. On the basis of a six months school, $20.23 per-capita is equal to $.169 to each district for each day each pupil is present at school; on the basis of an eight months school, $.126; and on the basis of a ten months school, $.101. The amount on which the census apportionment is calculated could be changed, as was stated in footnote 7, from $9.85 to any larger or smaller per-capita amount without changing the relative results.

In Indiana, the school census,[9] 6-21 years of age, for 1903-04 was 768.842 and the average daily attendance [10] was 416,047. This gives 54.1% as the state average of the census in average

[9] *Bien. Rept. Supt. Pub. Instr., Ind.*, 1904, p. 514.

[10] *Ibid.*, p. 515.

daily attendance at the schools. Calculating the percentages of average daily attendance on census for the first ten counties of the state, as arranged in alphabetical order, we get the next table. From this we can easily determine what would be the effect of an average daily attendance basis of apportionment in these ten counties.

TABLE No. 51.

PERCENTAGE OF CENSUS IN AVERAGE DAILY ATTENDANCE IN CERTAIN INDIANA COUNTIES.

(Calculated for the school year 1903-04 from data given in *Rept. Supt. Pub. Instr., Ind.*, 1904, tables 7*a*, 7*b*, 7*c*.)

Counties.	County as a whole.	Townships.	Towns.	Cities
Adams..................	52% †	51% †	63% *	49% †
Allen....................	35% †	38% †	64% *	33% †
Bartholomew...........	53% †	48% †	68% *	59% *
Benton.................	62% *	52% †	80% *	0%
Blackford..............	54% †	47% †	0%	61% *
Boone..................	66% *	63% *	96% *	67% *
Brown	60% *	60% *	84% *	0%
Carroll.................	64% *	61% *	86% *	83% *
Cass....................	57% *	59% *	73% *	54% †
Clark...................	54% †	57% *	74% *	42% †

* Would gain. † Would lose.

As 54.1% is the State average, any city, town, district, or county having that percentage would have received for 1903-04 the same amount of money under an average daily attendance basis of apportionment as under the census basis; while those having more than 54.1% would have gained, and those having less would have lost. An inspection of the above table shows that in two counties, considered as wholes, there would have been practically no change, three counties would have lost, and five counties would have gained. The country schools in half the counties would have lost, and in the other half of the counties they would have gained. All of the town schools would have gained, the percentage of attendance in all being high. Four cities would have gained, three would have lost, and one have remained practically unchanged.

To show more in detail how this basis of apportionment would affect these cities, we will compare the amounts which they would

receive under both the census and the average daily attendance basis of apportionment, using the eight cities in the eight counties in Table No. 51, which may be assumed in each case to be the county-seat cities, and also calculating similar figures for the five largest cities of the state. The census apportionment of $2.90 was of course based [11] on the census of 1903, but as detailed attendance figures for 1903 are not available, we will assume that the per-capita amount of the apportionment remained unchanged,[12] and use the attendance figures for 1904. On a basis of 54.1% of census in average daily attendance, a census apportionment of $2.90 is worth $5.36 if apportioned on average daily attendance instead of census. This is equal to $4\frac{1}{3}$ cents a day per pupil for a six months school, $3\frac{1}{3}$ cents a day on an eight months school, and $2\frac{5}{6}$ cents a day on a nine months school. Making the proper calculations, we get the next table.

TABLE No. 52.

COMPARING THE INCOME OF CERTAIN INDIANA CITIES UNDER THE CENSUS AND AVERAGE DAILY ATTENDANCE BASES.

(Calculated for 1904 from statistical data given in the *Rept. Supt. Pub. Instr., Ind.,* 1904, statistical tables 7a and 7c.)

City of.	Census, 6–21 years.	Av. Dy. Att.	Per cent.	Amount of apportionment on Census, @ $2.90.	Av. Dy. Att. @ $5.36.
Adams Co.	1,234	601	49%	$3,578.60	$3,221.36
Allen Co.	(See Ft. Wayne below.)				
Bartholomew Co.	2,136	1,275	59%	6,194.40	6,834.00
Blackford Co.	2,790	1,700	61%	8,091.00	9,112.00
Boone Co.	1,299	867	67%	3,767.10	4,649.12
Carroll Co.	545	453	83%	1,580.50	2,428.08
Cass Co.	4,604	2,468	54%	13,351.60	14,228.48
Clark Co.	3,560	1,492	42%	10,324.00	7,997.12
Five largest cities of the State, in order.					
Indianapolis	43,650	21,726	50%	126,585.00	116,451.36
Evansville	18,547	6,703	36%	53,786.30	36,028.08
Ft. Wayne	14,141	4,659	33%	41,006.00	27,301.74
Terre Haute	11,390	5,611	49%	33,044.60	30,074.96
South Bend	15,177	4,678	30%	44,013.30	25,074.08

[11] See footnote 12, Chapter IX, for calculations.

[12] This will not affect the relative amounts or the percentages of gain or loss. Judging from the gain in apportionment during recent years, the 1905 apportionment, based on the census of 1904, would increase to about $3.00 per capita. This would increase the average daily attendance appor-

With 51.1% of census in average daily attendance necessary to neither gain nor lose, an inspection of the middle column of figures indicates at a glance what will be the result. The last two columns show how closely an average daily attendance basis of apportionment rewards the efforts which a community makes, and punishes a community for what it does not do. They also reveal something of the injustice of the census basis of apportionment. A comparison of this table with Table No. 39, Chapter X, and Table No. 51, will show very clearly the reason for the gains and losses which would result under the average daily attendance basis of apportionment. To do this better, we compile a new comparative table containing the important percentages for each of the above cities, and add on the percentage of gain or loss of funds shown by the last two columns of Table No. 52. Doing this, and omitting the fractions of a per cent., we get the following result:

TABLE No. 53.

SHOWING THE REASONS FOR A GAIN OR LOSS IN FUNDS UNDER AN AVERAGE
DAILY ATTENDANCE BASIS OF APPORTIONMENT FOR CERTAIN INDIANA
CITIES.

(Compiled from Tables Nos. 39, 47, and 52, and by calculation from the last two columns of Table No. 52.)

Cities	Per cent of census.		Per cent of enrollment in Av. Dy. Att.	Per cent of gain or loss in funds.
	Enrolled.	In Av. Dy. Att.		
1. Which would gain.				
Boone Co.	93%	67%	71%	+23%
Carroll Co.	89%	83%	94%	+54%
Blackford Co.	83%	61%	73%	+13%
Bartholomew Co.	79%	59%	75%	+13%
Cass Co.	65%	54%	80%	+ 7%
2. Which would lose.				
Indianapolis	68%	50%	73%	— 8%
Terre Haute.	66%	49%	73%	— 9%
Adams Co.	63%	49%	80%	—10%
Clark Co.	55%	42%	75%	—23%
Evansville.	46%	36%	78%	—33%
Ft. Wayne.	42%	33%	78%	—34%
South Bend.	40%	30%	77%	—43%

The first column of figures of this table tells the whole story. The average daily attendance of those enrolled is a fairly constant

tionment correspondingly to $5.54. The actual amounts apportioned under both bases would be increased, but relatively they would remain unchanged.

quantity. The important item is the percentage of the total census which the schools enroll. If this is high the cities gain, if it is low they lose. In using average daily attendance as a basis for the apportionment of school funds, the state consequently places a premium on a much more important item than the regular attendance of those enrolled, which might at first thought seem to be the important factor. The real thing to be looked after is the enrollment, and in placing a premium on attendance, the school has also placed a premium on enrollment as well. The cities which would gain well deserve the reward they would receive for the work they do, while the cities which would lose ought to lose some of the money which they now receive. The so-called "scholastic population," based on the wide age limits, is a most inaccurate basis for estimating a city's educational needs. A city's real school population is certainly no larger than the enrollment in its schools. A city with a school census of 10,000 children and only 2,500 enrolled in the public schools is only half as large, from an educational point of view, as another city with a school census of 10,000 and with 5,000 enrolled in the public schools. If the deficit in enrollment is not in school at all, then the city should not be paid for the education of children whom it does not teach; if the missing children are being taught in private schools, then the city should not be paid for what is done by private means. The money now given to communities for what they do not do ought to be taken away from them and given to other communities which make a greater effort and have greater needs. This would not only appear to be just, but would be a marked advance toward the equalization of the burdens and the advantages of education. If a community wants more money from the state apportionment in return for its taxes let it make an effort to get more pupils into its schools, and after the children are once in the schools let it make a continuous effort to keep them there.

But while the average daily attendance basis has many decided advantages for the apportionment of school funds over any single basis of apportionment so far considered, it also, if used alone, has certain important defects which tend to limit its use as a single basis for apportionment. On the side of the small country school it is practically as defective as the census

basis in that it fails to provide sufficient funds with which to maintain a school, and on the side of the city it gives no recognition to the much longer term of school which the cities usually maintain.

As was shown in Table No. 24, Chapter IX, the small country school suffers seriously under the census basis of apportionment. It is not until after the enrollment is large enough for two teachers that the income on census apportionment is large enough to enable poor communities to pay for one. As was further shown by Table No. 48, the amount received by small schools under a total enrollment, a forty-day enrollment, or an average daily attendance basis of apportionment, while not less than under the census basis, would still be no greater. Under any one of the four bases of distribution, a school with a census of twenty-three and an enrollment of fifteen would receive only about $42.00 from the state on the basis of the Wisconsin census apportionment for 1903-04 of $1.82½ per-capita. A school with a census of forty-six and an enrollment of thirty would of course receive twice as much under any of the four bases of apportionment. Neither amount, as was pointed out in discussing the census basis of apportionment, is sufficient to render any very material aid to a poor community, and there is no educational reason why one school should receive twice as much as the other. The cost of teaching fifteen pupils in a school is practically the same as that of teaching thirty. If a better teacher is employed in the larger school than in the smaller, it is because there is more money with which to pay a better teacher rather than because a better teacher is needed. The average daily attendance basis of apportionment, while based upon better educational grounds and much more just in many ways than any single basis so far considered, still offers no financial relief to the small and over-taxed country district. In combination with other bases, as will be pointed out in a succeeding chapter, the average daily attendance basis may be used to very great advantage, but alone it contains the same elements of injustice toward the small country district as the census basis of apportionment.

In the preceding pages we have indicated the important advantages which the average daily attendance basis of apportionment has, and we have shown how the use of this basis of apportionment places a premium on a large number of important edu-

cational efforts, which, if made by a community, tend to much more firmly establish the public school system in the public esteem. The three or four cents a day received for each pupil from the state are of far less value to a town or a city than the other gains which come from the efforts made to win the increase. In all these respects the average daily attendance basis is much superior to any single basis of apportionment so far considered.

There is, however, one very important educational effort to be made by a community which the average daily attendance basis of apportionment, in common with all the other bases of apportionment so far considered, not only entirely disregards but tends to place a premium against,—that is, an effort to lengthen the school term. It is a common experience to have the school attendance decrease very materially during the spring months, and every child who leaves school for any purpose while the school remains in session cuts down the average daily attendance for the year. The schools A, B, C, and D, given in the preceding chapter (Table No. 44, Chapter X) to illustrate average membership, illustrate the point for average daily attendance equally well. All that is necessary is to assume that the figures used in Table No. 44 now mean the number in average daily attendance each month instead of in average membership. We also assume that the school census in each district is the same. Doing this, and bringing the table forward, we get the following result.

TABLE No. 54.

AVERAGE DAILY ATTENDANCE IN FOUR DIFFERENT SCHOOLS COMPARED.

Month	School A.	School B.	School C.	School D.
First	96	83	96	94
Second	97	88	98	90
Third	94	94	90	81
Fourth	92	98	83	70
Fifth	88	95	79	70
Sixth	86	94	76	57
Av. Dy. Att. for year [13]...	92	92	87	77
Income per school @ $3.00 per pupil in Av. Dy. Att...	$276.00	$276.00	$261.00	$231.00

[13] As in the preceding similar table (Table No. 44), these averages are only the arithmetical averages for the different months. Practically there would be a slight difference between these and the actual average daily

Schools A and B could continue, apparently, for another month with but very slight loss, and School B might actually gain by doing so. On the other hand, Schools C and D would have received more money from the state had they closed their schools at the end of the fourth month, and would also have saved two months of teachers' salary each. If all the schools had closed at the end of the fourth month the results would have been:

	School A.	School B.	School C.	School D.
Average daily attendance...	95	91	92	84
Income from state.........	$285.00	$273.00	$276.00	$252.00

Let us now assume that all four schools continue to provide a nine months term, and that Schools A and B each lose four pupils in average daily attendance for each of the three remaining months, that School C remains stationary, and that School D gains four pupils each month. The result then is as follows:

Month	School A.	School B.	School C.	School D.
Seventh...................	81	90	76	61
Eighth....................	77	86	76	65
Ninth.....................	73	82	76	69
Av. Dy. Att. for year.......	87	90	83	73
Income from state.........	$261.00	$270.00	$249.00	$219.00

School B would lose little, due to its having started with a low enrollment, but School A would receive the same amount for nine months as School C for six months, though it had a much higher percentage of its census in average daily attendance, had within three of as many pupils at the end of the ninth month as School C had at the end of the sixth month, and paid its teachers for nine months instead of six, which necessitated a much larger local tax on an equivalent valuation. Notwithstanding its much greater efforts its rewards are the same. Still further, had School C closed at the end of the fourth month, it would have received the same amount as School A for six months and $15.00 more than School A for nine months.

Such a condition as this is obviously unjust and tends to discourage one of the most important efforts made by a community. It tends to discourage efforts to lengthen the term and tends to cause communities to determine what school facilities shall be

attendance for the year obtained by careful counting at the end of the year, but for illustrative purposes the difference is negligible.

provided by what the great majority of the parents seem to want. As soon as the school attendance begins to decrease, the tendency is to close the school to save both local taxes and a loss from state income. It ought to be just the opposite. As long as a community is willing to pay taxes to continue its schools, the state ought to be willing to give aid in proportion. Under the average daily attendance basis alone, the state does exactly the reverse. This may be shown by calculating what the $3.00 per year per pupil in average daily attendance, assumed above, would be worth for various lengths of terms of school. Making the calculations we get the following values per pupil in average daily attendance on a $3.00 per-capita apportionment, if the length of term is disregarded.

TABLE No. 55.

VALUE OF AN AVERAGE DAILY ATTENDANCE GRANT OF $3.00 PER PUPIL FOR
VARIOUS LENGTHS OF SCHOOL TERM.

For a 3 months' school, 5c. per pupil per day.
For a 4 months' school, 3¾c. per pupil per day.
For a 5 months' school, 3c. per pupil per day.
For a 6 months' school, 2½c. per pupil per day.
For a 7 months' school, 2⅐c. per pupil per day.
For an 8 months' school, 1⅞c. per pupil per day.
For a 9 months' school, 1⅔c. per pupil per day.
For a 10 months' school, 1½c. per pupil per day.

Any increase or decrease in the size of the per-capita apportionment would increase or decrease the above figures actually, but would not change their proportions relatively. If the state considers it worth five cents a day to teach a pupil for three months, it ought equally to consider it worth five cents a day to teach the pupil nine or ten months.

The larger the per-capita apportionment, or the greater the difference in the length of term between country districts and cities, the greater will be the resulting inequalities and the more unjust will be the result. If the state apportionment on average daily attendance is small, as would be the case in Kansas (about $1.60),[14] or in Missouri ($2.80),[15] the inequalities would not

[14] This is only approximate, based on an estimate of about fifty per cent of census in average daily attendance, and the State apportionment of 82c. for 1904. It cannot be calculated exactly for the whole State, because actual figures as to average daily attendance are lacking from a number of the cities.

[15] For 1903-04, see Table No. 33, Ch. IX.

be so great as where it is large, as would be the case in Texas ($8.48),[16] in California ($17.87),[17] or in Montana ($20.23),[58] Again, where the inequalities between districts in length of term are small, as in Connecticut, where the length of term required by law for all schools is nine months,[19] and the average for the State is about nine and one-half months,[20] the inequalities would be much less than in Washington, where the required term is five months for districts and six months for towns and cities,[21] and where the state average for 1903-04 was six and seven-tenths months.[22] Still more do these inequalities exist in Oregon, where the length of term for the different districts of the State for 1901-02 were as follows: [23]

3 months,	239	districts.	8 months,	265	districts.	
4 "	130	"	9 "	300	"	
5 "	297	"	10 "	181	"	
6 "	329	"	11 "	36	"	
7 "	256	"	12 "	13	"	

Whatever may be the results in certain individual cases, it is theoretically worth more to the state to have communities provide school facilities for a reasonably long time than for a short time, and a premium rather than a penalty ought to be placed on efforts in that direction. Theoretically, the pupil who wants to go to school for nine or ten months each year will be worth more to the state than the pupil who wants to go to school for

[16] Calculated for the year 1902-03 from data given in a pamphlet on *Public Education in Texas*, issued by the Superintendent of Public Instruction. School census, 8-17 years, 759,358; average daily attendance, 444,669; per capita State apportionment on census, $5.00. This gives an average daily attendance of 59% of census and a State apportionment on average daily attendance of $8.48.

[17] For 1904, see Table No. 34, Ch. IX.

[18] For 1901-02, see Table No. 50, Ch. XI.

[19] "Public schools shall be maintained for at least thirty-six weeks in each year in every town and school district." *Conn. Gen. Stat.*, Ch. 131, p. 561, Sec. 2130.

[20] *An. Rept. Conn. Bd. Educ.*, 1903, p. 306.

[21] *Wash. Code of Pub. Instr. of 1897*, Title III, Ch. 1, Sec. 70, as amended by *Wash. Ses. Laws of 1903*, Sec. 23, p. 179.

[22] *17th Bien. Rept. Supt. Pub. Instr., Wash.*, 1904, p. 33.

[23] *Bien. Rept. Supt. Pub. Instr., Ore.*, 1902, p. 237.

but four or five, and the state should encourage communities to make proper provision for such pupils, even though they may be a minority, by making the length of term provided an item in the determination of the amount of money paid to a community.

It has been attempted to remedy this defect by what is commonly known as:

THE AGGREGATE DAYS OF ATTENDANCE BASIS.

Two methods may be employed. One method is to add up the total number of days of attendance for every school and divide the total amount to be apportioned by this sum, which will give the number of cents per pupil per day, from which the total apportionment of any district may be determined by multiplying the amount per pupil per day by the total (aggregate) number of days of attendance in the district. The other method is to calculate the average daily attendance for each school, as previously described, and then multiply this by the number of days the school was kept open. The first method is much simpler from the standpoint of state book-keeping. The apportionment from state to county and county to district can be made directly on the total number of days of attendance for the year in each. It has been adopted, as a basis for the apportionment of state funds, by the State of Washington;[24] as a partial basis for the apportionment of county funds by the states of New York [25] and New Jersey;[26] as a basis for the state apportion-

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[24] The State Superintendent of Public Instruction shall apportion the State school fund (income and tax) "among the several counties of the State (and thence to the districts) in proportion to the total days' attendance; Provided, that each school district shall be credited with at least two thousand days attendance." *Wash. Code of Pub. Instr., 1897*, Title II, Ch. 2, Sec. 22, div. 9th.

[25] "They (the County Commissioners) shall apportion all such remaining unapportioned school moneys (after having made the various apportionments on the other bases as required by the law) in like manner and upon the same basis among such school districts, and portions of districts, in proportion to the aggregate number of days of attendance of the pupils resident therein, between the ages of five and eighteen years, at their respective schools during the last preceding school year, and also such children residing therein over four years of age who shall have attended any free kindergarten school legally established." *Consol. School Laws of New York*, Title II, Art. 2, Sec. 6, as amended by *Laws of 1896*, Ch. 264, Sec. 2.

[26] "He (the County Superintendent of Schools) shall apportion to the

ment of the $200,000 of income from the state school fund
in New Jersey;[27] and as the basis for the division of school
funds between a town and a special district incorporated within
a town in the State of Vermont.[28]

It will be evident that with this addition, the attendance basis
of apportionment takes into proper consideration the various ef-
forts which a community makes to increase its school attend-
ance and to lengthen its school term. The inclusion of the
length-of-term element in the calculation as to the amount of
apportionment to be given to a district, town, or city, makes the
method appear to be just to all. In combination with an appor-
tionment basis which makes some definite provision for the
small school by recognizing the teacher-basis as well, the aggre-
gate attendance method would be the most thoroughly just basis
of apportionment we have so far considered. The cities would
receive a proper reward for their longer term, as they should,
and the towns and country districts would be encouraged to
make an effort to approach nearer the length of term provided
by the cities.

several school districts of the county the remainder of said moneys (after
having made the various apportionments on the other bases as required by
the law) on the basis of the total days' attendance of all pupils enrolled
in the public schools thereof as ascertained from the last published report
of the State Superintendent of Public Instruction. For the purpose of
such apportionment, an attendance upon an evening school shall be counted
as one-half day's attendance." *School Laws of New Jersey*, as enacted by
the 2d Sp. Ses. of the 127th Leg., and approved Oct. 19th, 1903, Ch. I,
Art. XVII, Sec. 182, div. II.

[27] "The State Superintendent of Public Instruction shall equitably ap-
portion to the several counties the amount apportioned for the support of
public schools from the State School Fund on the basis of the aggregate
number of days attendance of all pupils attending the public schools during
the year preceding that for which the apportionment shall be made." *Ibid.*,
Ch. I, Art. II, Sec. 16.

[28] "The Selectmen of a town having within its limits a district incor-
porated by a special act of the general assembly, or a part of such a dis-
trict, shall annually . . . divide the public school moneys between the town
district and the incorporated district as follows:

"The share of the State school tax . . . shall be divided in proportion
to the number of legal schools maintained in each district; all other school
moneys shall be divided" in proportion to the aggregate attendance in
each. *Vermont Statutes of 1894*, Ch. 45, Sec. 848, as amended by the *Ses.
Laws of 1900*, No. 19, Sec. 1.

The working of such a method of apportionment used alone can be shown by returning to the illustration of the effect of lengthening the term on the average daily attendance and income of four schools, A, B, C, and D, used on a preceding page (Table No. 54). To do this in a simple manner let us use the method of multiplying the average daily attendance by the length of term. To do this let us assume that the state apportionment would average 2.5c. per day per pupil. This would be equal to 50c. a month, or $2.00 per pupil for a four months term, $3.00 per pupil for a six months' term, and $4.50 per pupil for a nine months' term. To compare the results of the two methods of apportionment, let us first bring forward the results of the calculations for these schools under an average daily attendance apportionment basis, at the $3.00 per pupil per year rate previously used, and then below these figures place similar calculations to show the results under an average daily attendance multiplied by length of term basis. Doing this and calculating, we get the following result:

TABLE No. 56.

AVERAGE AND TOTAL ATTENDANCE GRANTS IN FOUR DIFFERENT SCHOOLS
COMPARED.

	School A.	School B.	School C.	School D.
Av. Dy. Att. basis—				
4 months' term...........	$285.00	$273.00	$276.00	$252.00
6 months' term..........	276.00	276.00	261.00	231.00
9 months' term..........	261.00	271.00	249.00	219.00
Av. Dy. Att. multiplied by length of term basis—				
4 months' term..........	190.00	182.00	184.00	168.00
6 months' term..........	276.00	276.00	261.00	231.00
9 months' term..........	391.50	405.00	373.50	328.50

This comparative table shows how much more closely the amount awarded by the state corresponds to the educational efforts made by a community when length of term is considered. Similar results could be shown by an illustration using the aggregate number of days of attendance. This basis is not only much more just than any previous basis considered, but would seem to be more in the direction of an equalization of the burdens and advantages of education. The state agrees to pay doubly: it

agrees to pay for every pupil in attendance, and also for every day the pupil has the opportunity to remain in attendance.

It will be obvious at once that this method, though theoretically much more just, would give the cities, if used singly and alone as a basis for the apportionment of funds, a still greater advantage over the small country districts than they have at present. By reason of their longer term of school and the much smaller number of teachers needed for every thousand children, they would draw such a large proportion of the state apportionment that the country districts would be more seriously handicapped for want of funds than they are to-day under the census basis of apportionment. This may be illustrated by comparing the income per teacher employed in a small country school in Adams County, Indiana, with the income per teacher in the city of Indianapolis. The percentage of census enrolled in each was the same,[29] 68%, and the percentage of the enrollment in average daily attendance was also practically the same,[30] being 74% for the country schools of Adams County and 73% in the city of Indianapolis. The per-capita on census apportionment of $2.90 was equal, as we have previously shown,[31] to $5.36 on average daily attendance for 1903-04. As nearly as can be estimated, using the arithmetical averages for length of term, this is equal to approximately three and one-half cents per pupil per day. Assuming it to be this amount and calculating, we get the following comparison of a city and a small country school when the conditions as to enrollment and attendance are the same:

TABLE No. 57.

INCOME OF A CITY SCHOOL AND A SMALL COUNTRY SCHOOL COMPARED UNDER THE CENSUS, AVERAGE DAILY ATTENDANCE, AND AGGREGATE DAYS' ATTENDANCE BASES.

School.	Census	Enrollment.	Av. Dy. Att.	Term.
Country.......	29	20	14.5	127 days.
City..........	73	50	36.5	200 "

			Value of State apportionment on	
School.	Census @ $2.90.	Av. Dy. Att. @ $5.36.	Av. Dy. Att. $\times$ term @ 3½c. per pupil per day.	
Country.......	$84.10	$77.72	$14.5 \times 127 \times .03\frac{1}{2} = \$64.45$	
City..........	211.70	195.64	$36.5 \times 200 \times .03\frac{1}{2} = 256.30$	

Excellent as this basis for apportionment is in most respects, it is evident that it would be much worse than the census basis of apportionment in its results, if used singly and alone. This will be still more evident when one recalls that the taxable valuation per teacher employed in Indianapolis is at least three or four times as great as in the country districts of Adams County. Instead of an advance toward an equalization of the burdens and the opportunities of education, it would be a decided step in the opposite direction. With some provision made which would first secure a reasonable allowance for every school or teacher employed, and then a distribution of the remainder on the basis of aggregate attendance, this method is one of the best that has been evolved, but without the previous provision for the small country school it would be ruinous to many a district.

This the State of Washington has attempted to make by providing that " each school district shall be credited with at least 2,000 days attendance." [32] As the Washington state apportionment for 1903-04 was worth about 8¾ cents a day,[33] this insured $175.00 at least to every district for that year, however small the district might be or however short its term of school. The preceding year the attendance was about two million days less, the amount of money to be apportioned about the same, and the income was equal to about 9¾ cents a day, or a minimum amount of about $195.00. In a succeeding chapter it will be shown how a basis of apportionment having so many good features as the aggregate attendance basis can be made usable by combining it with some other apportionment basis and thus making it just.

In using this basis of apportionment, an allowance ought always to be made for the effect of those influences which seriously cut down the attendance, but over which the school au-

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[29] See Table No. 39, Chapter X.

[30] See Table No. 47, Chapter XI.

[31] See Table No. 52, Chapter XI.

[32] See footnote 24 of this chapter.

[33] Calculated from statistical data in the *17th Bien. Rept. Supt. Pub. Instr., Wash.*, 1904, pp. 32, 39, 9, 15.

thorities have no control, such as the closing of the schools for institutes, the teachers being paid for attendance, and the effects of fires, epidemics, etc. This is easily arranged for, as may be shown by a few quotations. In Washington, the State law provides for an allowance for teachers' institutes, as follows:

"When the teachers' institute is held during the time when a teacher is employed in teaching, his pay shall not be diminished by reason of his attendance, when certified to by the County Superintendent, and in addition to the actual attendance earned by the district, an additional attendance shall be credited to the district, determined by multiplying the average daily attendance for the term by the number of days the teacher attended the institute." [34]

In New Jersey, the State law and the rules of the State Board of Education provide for unexpected closing of schools, epidemics, quarantined pupils, etc., as follows:

"If a school in any district shall, on account of contagious disease, destruction of the school-house by fire or otherwise, or for other good reasons, be closed, for the purpose of this apportionment, such school shall be deemed to have been in session, and the total days' attendance upon such school for the time it shall have been closed as aforesaid shall be determined by dividing the actual total days' attendance of the pupils enrolled in such school by the number of days such school shall have been actually in session, and multiplying the quotient thus obtained by the number of school days such school shall have been closed." [35]

"Whenever a dwelling shall be quarantined by order of the Board of Health, . . . children residing in the building quarantined who shall be actually on roll in the school at the time the building shall be quarantined, excepting children who are ill, shall be counted as present during the time the building shall be quarantined. The allowance for attendance lost by pupils quarantined will be added to the total attendance of the district by the State Superintendent of Public Instruction at the end of the school year." [36]

These additions eliminate the chief objections to an aggregate days' attendance basis which are commonly urged.

[34] *Wash. Code of Pub. Instr. of 1897*, Title III, Ch. 4, Sec. 102, as amended by *Ses. Laws of 1897*, Sec. 17, p. 320.

[35] *School Laws of New Jersey*, as enacted by the 2d Sp. Sess. 127th Leg., and approved Oct. 19, 1903; Ch. I, Art. XVII, Sec. 182, div. II.

[36] Rules and Regulations prescribed by the State Board of Education, No. 60. *New Jersey School Law of 1903*, p. 125.

CHAPTER XII

The District and the Teacher Basis

We have pointed out quite fully in the preceding chapters, and have shown in detail by Table 48, Chapter XI, that any single basis of apportionment so far considered, however meritorious it may be in other respects, will fail to provide a sufficient amount of money for the needs of the small school. To remedy this defect it has been proposed to make the school district or the teacher the basis of apportionment, wholly or in part.

THE SCHOOL DISTRICT AS A BASIS

It will be obvious at once that the school district could not be made the sole basis of apportionment, unless all districts were small single-teacher districts, without gross injustice to all larger districts; hence the method has no possibilities of practical application except in combination with other plans. In combination with other plans, however, it has been used in four Western states and one territory and proposed in a few others, and deserves some theoretical consideration. The essential idea in the plan is to provide a means by which the small school shall receive a larger sum than it would receive under a simple census or attendance basis of apportionment. In this lies its chief merit. To accomplish this result a division of a portion of the fund to be distributed is first made equally to each district, without regard to size, and then the balance of the fund is apportioned on census, attendance, or whatever other basis may be provided by law. In the four states and one territory in which the method is used, Oregon, Wyoming, Nebraska, Idaho, and Arizona, the state apportionment is made to the counties on census alone. This involves all the inequalities of the census method. The "district quota" is first set aside in making the county apportionment, and then the balance remaining is apportioned to the districts on census. In Oregon [1] each district first

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[1] *Oregon School Laws*, published by authority of Senate Joint Resolution No. 6, 1903, Title I, Art. 3, Sec. 20, div. 3.

receives $50.00; in Wyoming,[2] $150.00; in Nebraska[3] one-fourth of the county apportionment is first divided equally to all districts; in Idaho[4] one-third is first so divided; and in Arizona[5] each district first receives $400.00 if it has a census of more than ten and less than twenty, and $500.00 if it has a census of twenty or more. City and country districts fare alike on this first "district quota" division, the cities making up for the loss by what they receive under the census basis of apportioning the balance. This tends greatly to equalize the advantages of term and teacher to the country districts of each county by giving them an apportionment more nearly proportional to that given to the cities.

The county, though, is only a half-way stage in the process of evolving a better system. If this "district quota" method of equalizing the census apportionment is to be retained, the change ought to be made from the county unit to the state as a whole wherever possible. In a county containing a large city the small schools will fare very well under this basis of apportionment, but an essentially rural county, with only a number of small schools, would have very little money left to apportion after making the first division to each district, unless the state and county funds were relatively large. This may be illustrated very well by the state of Oregon, whose apportionment plan we have just outlined. The value of the state apportionment for 1904 per teacher employed and per district for four selected counties, two being large counties and two being small counties, was as follows:

| County.* | Districts. | Teachers. | Average Value of State Appt. | |
	1903.	1903.	Per District.	Per Teacher.
Multnomah	60	449	$750.90	$100.34
Umatilla	105	135	106.28	82.66
Klamath	31	50	60.28	37.37
Morrow	46	58	59.65	47.31

* Calculated from data in *Rept. Supt. Pub. Instr., Ore.*, 1905, pp. 37, 41, 51.

The amount remaining to be apportioned on census would be large in Multnomah County, but in Klamath and Morrow coun-

[2] *Wyoming Rev. Statutes of 1899*, Div. 1, Title 10, Ch. 10, Sec. 1193.

[3] *The School and Land Laws of Nebraska*, 1903, Subdiv. 11, Sec. 4.

[4] *General School Laws of Idaho*, 1903, p. 37.

[5] "An Act to revise and codify the laws of Arizona," Approved March 15, 1901; Title 17, Ch. 16, Sec. 128, div. 1.

ties there would be but little left to distribute after making the
$50 per district grant.

It is probable that the " district quota " could be so propor-
tioned and used as a partial basis in making the state apportion-
ment as to give somewhat equitable results throughout a state as
a whole. Such a combination plan certainly would provide the
small country district with a larger sum of money with which to
maintain a school than would be possible under the census, en-
rollment, or attendance bases alone, and it would tend to equalize
burdens and advantages as between the cities and the country.
In combination with an average daily attendance basis (Chap-
ter XI) instead of a census basis it probably would produce very
good results, and might be a very desirable advance over the
present system for any state in group 2, Table 37, Chapter IX.

The chief item in the cost of a school, though, as we have re-
peatedly pointed out, and the most important element to be con-
sidered in providing funds for the maintenance of a school, is
the cost for the salary of the teacher. Theoretically, at least, the
more money the districts have with which to pay a teacher the
better the quality of teacher who can be secured and the higher
the standard of qualification which the state can demand of the
teacher. The " district quota " is an attempt to provide for the
needs of the small school by giving to each small district a little
larger apportionment with which it may be able to employ a
better grade of teacher or to conduct a longer term of school.
The " district quota " is a first step in the direction of a " teacher
quota "; the ultimate conclusion of the process is the definite
recognition of the teacher unit in the making of an apportion-
ment by setting aside a definite sum for every teacher employed.

THE TEACHER AS A BASIS

In determining the number of teachers upon which the appor-
tionment is to be made, but four states have advanced to the
point of giving definite recognition to every teacher employed in
the state. New Jersey, in making the county apportionment, sets
aside $200.00 for every teacher employed in the county for full
time and $80.00 for each teacher employed for any portion of
time not less than four months;[a] New York, in making the

[a] *School Law of N. J.*, as enacted by the 2nd Sp. Ses. 127th N. J. Leg.
and Approved Oct. 19, 1903; Ch. I, Art. XVII, Sec. 182, div. I.

state apportionment, sets aside $150.00 for the first teacher employed if the property valuation of the district is not over $40,000, or $125.00 for the first teacher employed if the property valuation is over $40,000, and then $100.00 additional " for each additional qualified teacher and his successors " [7] actually employed in the state; Pennsylvania divides one-third of the entire state apportionment for schools equally " on the basis of the number of paid teachers regularly employed for the full annual term "; [8] and Vermont distributes the income from the state school tax, except $15,000 reserved for equalization, " among the cities and towns in proportion to the number of legal schools maintained." [9] All four of these states use the teacher basis only as one of two or more bases upon which to apportion school funds, though in New York the amount left for distribution on other bases is small. Delaware, alone of all the states, uses the teacher basis entirely, dividing the entire state fund and appropriation among the three counties of the state in proportion to the number of teachers employed for one hundred and forty days in each, [10] but limiting the number for which any county may receive payment at one hundred and sixty-five. This limitation as to the number of teachers destroys the perfect equality of the plan of Delaware, as Newcastle County, outside of the city of Wilmington, employed one hundred and fifty-three teachers, Kent County, one hundred and seventy-one teachers, and Sussex County, two hundred and thirteen teachers [11] in 1901. It would have been better, theoretically, if this limitation had not been

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[7] *Consol. School Law of N. Y.*, as amended to June, 1903, Title II, Art. I, Sec. 6, div. 2. This is a combination of the district and the teacher bases.

[8] Act of July 15, 1897, Sec. I. *Pa. Ses. Laws of 1897*, p. 271.

[9] *Vermont Statutes of 1894*, Title II, Ch. 40, Sec. 762. "A legal school for the purpose of the preceding section shall be one which has been maintained for at least twenty-eight weeks during the school year, taught by a duly qualified teacher, and whose register has been kept and returned as required by law." *Ibid*, Sec. 763.

[10] *Laws of Delaware, 1901*, Ch. 112, as amended by *Laws of 1903*, Ch. 339. Previous to 1901 this apportionment was made on the basis of total population, and previous to 1903 the apportionment was limited to one hundred and ten teachers in each county.

[11] *2nd Bien. Rept. State Bd. Educ., Del.*, 1901, p. 7.

inserted in the law and the fund had been distributed each year pro-rata among the schools.

As a single basis for the apportionment of funds, the teacher basis, despite its limitations, is manifestly better than the school census basis, and it would be an advance educationally if the states now using the census basis alone were to change to the teacher basis of apportionment. A still better combination basis can be devised, but the teacher basis alone would be much more equitable than the census basis now so commonly used, because it changes the unit of payment from a very variable item, the "scholastic population," to a very fixed and definite item, the teachers actually employed in teaching the schools. This may be illustrated by using the case of the state of Wisconsin, which we have previously used in Table 48, Chapter XI, to show what a series of small schools would receive under a census, enrollment, and attendance basis of apportionment. Dividing the total state apportionment for 1903-04 ($1,400,612.77) by the total number of teachers employed [12] in the counties and cities of the state (13,551) during the preceding year, on which the apportionment would have to be made, gives a teacher-basis apportionment value of $103.36 per teacher employed on the values for 1903-04. To have received this amount of money at the per capita on census value of $1.82½ for the same year (Table No. 24, Chapter IX), a district would have had to have a school census of fifty-seven children, which is larger than the average census size of the country schools of the state.[13]

Similar calculations may be made for the state of Indiana.[14] The total amount apportioned for the year 1903-04 on the census of 1903 was $2,223.714.78, and the number of teachers employed in the entire state during the preceding school year, on which the apportionment would have to be made, was 16,080. This gives

[12] As given in the statistical tables of the *Bien. Rept. Supt. Pub. Instr., Wis.*, 1903-04, Pt. II, pp. 91, 9, and 20.

[13] The average number of census children per teacher employed in the entire State of Wisconsin during 1903-04, cities under a city superintendent excluded, was forty-eight. This is calculated by dividing the census, 4-20 years of age, by the number of teachers employed outside of the cities.

[14] *Bien. Rept. Supt. Pub. Instr., Ind.,* 1904, statistical tables, 6a, 6b, 7a, and table J.

a teacher basis apportionment value of $138.29, which, at the per capita on census value of the state apportionment (Table No. 35, Chapter IX) of $2.90, would have required a district to have a school census of forty-eight children to have received an equal sum on the census basis, while the average census size of the schools, per teacher employed, in all the township schools in Indiana during 1903-04, towns and cities excluded, was but forty-two census children.

Under a teacher basis of apportionment every school, regardless of its size, would start alike with a common minimum. What each could do beyond this would depend upon density of population, taxable property, and individual initiative. The city school and the country school would thus be placed on the same unit basis, the unit being the teacher actually employed instead of the school census child. Under such a basis of distribution such a condition of affairs as is shown by Table 30, Chapter IX, where the average value per teacher employed of the per capita on census apportionment of $2.90 is given for the township, town, and city schools of the first eight counties of Indiana, would cease to exist. This table showed that in the first eight counties of Indiana the average value of the apportionment per teacher employed varied from $78.52 to $164.44 in the township schools; from $81.63 to $162.46 per teacher in the town schools; and from $109.32 to $244.10 in the city schools. Under an equal division per teacher employed basis, the amount would be $138.29 in every case, because the unit used is the same for all.

Taking the same nine Wisconsin counties used in Tables No. 10 and No. 23, we can show the effect of a teacher basis apportionment in relative tax rates required to produce a certain amount. In Table No. 10, Chapter IV, we gave calculations to show the rate of tax required to raise $250.00 wholly by local taxation. In Table No. 23, Chapter IV, we gave calculations to show the rate of tax required to raise the balance of $250.00 after applying the state census apportionment. Bringing forward both these calculations, applying the state average teacher basis apportionment of $103.36 per teacher employed, and then calculating the rate of tax in mills required to raise the balance of $250.00 on the equalized county valuations given in Table No. 10, Chapter IV, we get the following comparative table:

TABLE No. 58.

(Compiled and calculated for the school year 1903-04 and from data given
in Tables No. 10 and No. 23.)

County.	Tax in mills to raise $250. per teacher.	Av. Value of State apport. per teacher employed.	Tax in mills for balance of $250. per teacher.	Value of State apport. on teacher basis.	Tax in mills for balance of $250. per teacher.
Adams..........	6.75	$ 46.40	5.50	$103.36	3.96
Ashland........	3.14	96.44	1.93	103.36	1.90
Barron.........	5.83	84.61	3.84	103.36	3.41
Bayfield........	2.03	84.55	1.34	103.36	1.18
Brown..........	1.56	176.69	.46	103.36	.86
Buffalo.........	3.04	87.58	1.97	103.36	1.74
Burnett.........	11.57	60.37	8.78	103.36	6.07
Calumet........	1.44	134.38	.66	103.36	.84
Milwaukee......	.72	193.29	.17	103.36	.42*

* To produce the balance of $500 instead of $250 per teacher employed,
this rate would be only 1.15 mills, and to produce the balance of $750 per
teacher, the rate would be but 1.87 mills.

This table shows, for this group of counties, how very much
more equitable an apportionment could be made on the teacher
basis than on the census basis. Under the census basis of appor-
tionment the reduction in the tax rate, after applying the census
apportionment, was greatest where it was lowest to begin with,
and least where it was highest; but under the teacher basis of
apportionment the rate of reduction in the tax rate, after apply-
ing the uniform teacher apportionment, is much more evenly pro-
portioned, and the extremes in tax rate are neither so high nor
so low. The tax rate, compared with that now prevailing under
the census basis of apportionment, would be reduced in the poorer
counties and increased slightly in the wealthier counties and cities,
as it should be.

The effect of a teacher basis of apportionment may be shown
also for the eight Missouri counties and the city of St. Louis,
used in Table No. 11, Chapter IV, and in Table No. 26, Chapter
IX. Bringing forward the calculations given in these tables,
and calculating as in the last table,[15] we get the following:

[15] *An. Rept. Supt. Pub. Instr., Mo.*, 1904. Number of teachers em-
ployed during 1903-04, (p. 15) 17,036; total apportionment, July, 1904,
$1,285,162.18 (p. 65); value per teacher employed, $75.44.

TABLE No. 59.

(Compiled and calculated from data given in Tables No. 11 and No. 26.)

Counties.	Tax in mills to raise $.50.	Av. value State apport. per Tr employed.	Tax in mills for balance of $250.	Value of State apport. on teacher basis.	Tax in mills for balance of $250.
Adair............	6.86	$ 58.14	5.27	$75.44	5.07
Andrew..........	3.56	60.00	2.70	75.44	2.49
Atchison.........	3.75	47.00	3.05	75.44	2.62
Audrain..........	4.22	57.91	3.24	75.44	2.93
Barry............	7.58	78.85	5.20	75.44	5.29
Barton...........	5.87	53.26	4.60	75.44	4.11
Bates............	4.25	66.46	3.12	75.44	2.97
Benton..........	6.34	64.39	4.70	75.44	4.43
St. Louis (City)..	1.11	123.79	.56	75.44	.78*

* To produce the balance of $500 instead of $250 per teacher employed, this rate would be only 1.85 mills; and to produce the balance of $800 per teacher, the rate would be but 3.24 mills.

The result shown here is similar to that shown for the Wisconsin counties. The tax rate in Barry County alone of the counties would be increased, but the large census apportionment per teacher for this county shows that it employs few teachers relative to its census, and reveals the reason. The figures given in the annual report show an average enrollment for this county of sixty-one pupils per teacher. Its tax rate is high because it is one of the poor counties of the state in assessed valuation, but has a relatively large population. St. Louis would lose, partly because but 48% of its census is enrolled as against a state average of 74% (Table No. 38, Chapter X), and partly because during 1903-04 it employed but one teacher for every 44.6 pupils enrolled in all classes.[16]

Similar calculations made for the districts of Andrew County, Missouri (Table No. 27, Chapter IX), show similar equalizing results. The result of an apportionment, based wholly on teachers employed, would be a tendency toward the equalization of both the burdens and the advantages of education. It certainly would relieve the excessive tax rate in many a poor county,

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[16] Enrollment, 83,924; teachers employed, 1859. *An. Rept. Supt. Pub. Instr., Mo.*, 1904, pp. 77, 80.

township, and district, and enable these to provide better educational advantages than they do at present. The large cities would lose some, but probably the chief increase in tax in many cities would be to make up for what they ought to lose under any just apportionment basis. Notwithstanding the fact that the cities provide more for their children and that education costs more in the cities, the large cities could probably still maintain their more extensive school systems on a much lower actual tax rate than the average for the counties, due to their larger per capita wealth. How fully this basis of apportionment would equalize burdens could only be told by careful calculations based on relative property valuations, but it is certain that it would much more nearly do so than will a census basis of apportionment. The earlier change in the basis of apportionment from the taxes paid by the parents to the number of children to be educated was a long step in advance, because it made a change in the apportionment unit from the parent's dollar to the parent's child. A further change in the unit for apportionment from the child to the teacher required to teach the child would seem to be a still further advance in the direction of justice and better education.

What the small country school would gain by such a change would of course be taken from the cities and towns. This may be shown by the following example: The average number of census children per teacher employed in the cities of Wisconsin during 1903-04 was 79.5, and in the cities of Indiana it was 61.8. These values are equal to average teacher apportionments on census of $145.09 for the cities of Wisconsin, and of $179.22 for the cities of Indiana, or a half larger than the state average teacher-basis apportionment for Wisconsin ($103.36), and a third larger than the state average teacher-basis apportionment for Indiana ($138.29). Using the figures for average percentage of census enrolled in the cities of the two states (Table No. 38, Chapter X), these would give average enrollments per teacher employed of 41.3 and 39.5 pupils for the cities of the two states respectively. A part of this loss which the cities would experience would be a loss which the cities ought to experience under any circumstances, and which they would experience under an enrollment or attendance basis of apportionment, as we have previously pointed out in Chapters IX, X, and XI, because of the large sums which certain cities now receive from the state for the education of chil-

dren who either go to private schools or do not go to school at all. The other part of the loss, the minor part of the loss, would be real and actual, and would have to constitute the cities' contribution to their poorer rural neighbors to enable them to provide better educational conditions for their children and to help equalize the advantages of education and the burdens of school support throughout the state.

How this would work out may be shown by comparing the results in the largest city in each state, using total enrollment as a basis for comparison. Average daily attendance would be a better basis for comparison, but the Wisconsin returns do not give such data except for the cities, and hence a state average per cent of attendance, from which the apportionment value on attendance must be calculated, can only be estimated. These two cities form good illustrations, as Milwaukee enrolls but a small percentage of its school census while Indianapolis enrolls a large percentage. And the percentage of the enrollment in average daily attendance is about the same in each, being 77% in Milwaukee and 73% in Indianapolis for the school year 1903-04.

In Wisconsin, the city of Milwaukee [17] received for 1903-04 the sum of $191,945.79 on the census apportionment basis. It enrolled 43,433 children between the ages of four and twenty years. This was 41% of its census as against a state average of 61% (Table No. 31, Chapter IX). Had the state apportionment been made on total enrollment instead of census, at the state apportionment on enrollment value of $2.99 (Table No. 48, Chapter XI), the city would have received $129,864.67. The difference between this amount and the amount it did receive was what the city was paid on the census basis for what it did not do. The city employed during 1903-04 a total of 984 teachers, which at the state value of $103.36 per teacher, calculated above, would have given it $101,706.24. Milwaukee would thus suffer a real loss of about 22% on a teacher-employed basis over what it would have received on an enrollment basis, and about 24% over what it would have received on an average daily attendance basis.

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[17] *Bien. Rept. Supt. Pub. Instr., Wis.*, 1903-04, Pt. II, pp. 117, 119, 120. At the estimated state apportionment on average daily attendance value of $4.15 (see Table No. 48, Chapter XI), the amount received on average daily attendance would have been $133,572.77.

The city of Indianapolis,[18] on the other hand, enrolled 68% of its school census in 1903-04 as against a state average of 72% (Table No. 39, Chapter XI). Making similar calculations we find that Indianapolis would have received on the basis of $2.90 on the school census of 1904 the sum of $126,611.10 on census; $109,614.43 on total enrollment at a state value of $4.03 (Table No. 35, Chapter IX); and $108,834.23 on a teacher basis (787 teachers employed in 1903-04), at the state value of $138.29 per teacher, as calculated above. This would be a real loss to the city on a teacher-employed basis of only about 1% from what the city would have received on an enrollment basis. The real loss on a teacher-employed basis from that on an average daily attendance basis (calculated from Table No. 52, Ch. XI) would have been about 6%.

Indianapolis would then receive almost as much from the state on a teacher basis as on an enrollment basis, while Milwaukee would lose slightly over one-fifth. This difference is due to the fact that Indianapolis employed a relatively larger number of teachers to teach its children, having one teacher for every 37.7 pupils enrolled, while Milwaukee had but one teacher for every 46.2 pupils enrolled.[19] This includes all classes of teachers and supervisors and the enrollment in all schools.

The illustration just given for the two cities reveals one of the strong features of the plan of using the number of teachers actually employed as at least one of the bases in a general plan for apportioning school funds, and shows its superiority over the "district quota" basis. Its best feature is that it places a premium on the employment of a sufficient number of teachers to teach the children properly. If a city wants more money from the state in return for its taxes, all it needs to do is to provide better for its children by employing more teachers for them. Of course the amount received from the state will not pay the salary of the teacher, but it will pay a large enough portion of it to serve as a strong incentive to communities to provide more teachers, and be a very strong argument with boards of educa-

[18] *Bien. Rept. Supt. Pub. Instr., Ind.,* 1904, statistical tables. Also see footnote 12, Chapter XI.

[19] Calculated from data given in the State school reports for the years indicated above, by dividing the total enrollment by the total number of teachers employed.

tion in support of a superintendent's request for needed additions to the teaching force. The chance to get back a little more of the state tax is a strong incentive to almost every community. We think it is the general consensus of opinion among educators to-day that forty children in a grade are about as many as a teacher can teach properly, and that the number in the primary class ought to be even less. This condition is found, however, in but few cities, and, if the opinion of educators on this point is of value, the state should place a premium on the work of those communities where the teaching is done under the best conditions.

For the little country school the result might not be materially different under the teacher basis from what it would be under the " district quota " basis, but for the larger country schools the teacher basis would be a very decided gain. There are many country schools in the different states where an enrollment of forty to fifty children in eight or nine grades is taught by one teacher, partly because there is not money enough to pay two teachers, and partly because the state offers no incentive to the district to try to provide another teacher. The state premium at present is placed on the division of the district and the building of another school-house, and this is usually done. This has led to the multiplication of small districts and inefficient schools. It would be very much better, unless the distances traveled are very great, to try to keep the school together and add another teacher to it. This certainly would not cost any more and would be very much better from an educational point of view. A teacher basis of apportionment would tend to place an incentive on doing this. Certain limitations as to size and distance from another school would, of course, be a wise safeguard against the undue multiplication of unnecessary small schools.

The teacher basis is, however, best adapted to use as one of a combination of two or more different apportionment bases. Used alone, while it would be better than the census basis in that it would be more generally just, it would, nevertheless, fail to place a premium on any of those desirable educational efforts of a community, such as keeping a school together so as to teach it more economically instead of dividing the district, providing better teachers and schools so as to attract a larger enrollment, enforcing the attendance laws, lengthening the school term, etc., all of which we have indicated in previous chapters as very de-

sirable. The strong point in favor of this basis is that in cities, towns, and the larger country schools it places a premium on providing a sufficient number of teachers, and for the small country school it provides a larger sum of money than such schools would receive under any other single basis so far considered. Combined with an aggregate attendance basis, it would place a premium upon almost all the desirable educational efforts which a community should make for the betterment of its system of public schools.

We have so far considered the teacher basis of apportionment as determined by the number of teachers actually employed in the schools. This is the most rational basis for such a determination. This is the basis used in New Jersey, New York, Pennsylvania, Vermont, and to a degree in Delaware. Two Western states, where the state and county apportionment is large, have seen fit to determine the number of teachers by somewhat artificial means, and these attempts to determine when a teacher is to be paid for on some other basis than actual teaching deserve some consideration here. In both states the state apportionment is, at present, made to the counties on the straight census basis, the county fund added, and then the county apportionment is made on a combination of bases, one of which is the teacher basis.

The Nevada law provides: [20]

"First. He (the *ex-officio* County Superintendent) must ascertain the number of teachers each district is entitled to, by calculating one teacher for every seventy-five census children or fraction thereof, as shown by the next preceding school census.

"Second. He must ascertain the total number of teachers for the county by adding together the number of teachers assigned to the several districts, upon the basis of one teacher to every seventy-five census children or fraction thereof.

"Third. Forty per cent of the amount of the apportionment from the State and County Fund shall be apportioned equally to each district for every teacher assigned it, upon the basis of seventy-five children or fraction thereof.

"Fourth. Balance on school census, six to eighteen years of age."

The California law, before the amendment of 1905, also provided: [21]

[20] *Nevada Stat. of 1889*, p. 38. *The School Law of Nevada, 1891*, Art. III, Sec. 2.

[21] *Political Code of Cal.*, Sec. 1858.

" First.   He (the County Superintendent) must ascertain the number of teachers each district is entitled to by calculating one teacher for every seventy school census children, or a fraction of such number not less than twenty school census children, as shown by the next preceding school census; and in cities or districts where separate classes are established for the instruction of the deaf, . . . an additional teacher for each nine deaf children, or fraction of such number, not less than five, actually attending such classes.

" Second.   He must ascertain the total number of teachers for the county by adding together the number of teachers assigned to the several districts.

" Third. $500.00 shall be apportioned to each district for every teacher assigned to it; provided that to districts having ten and less than twenty school census children shall be apportioned $400.00; provided further, that to districts having over seventy school census children and a fraction of less than twenty, there shall be apportioned $20.00 for each census child in said fraction." [22]

" Fourth.   Remainder to be apportioned on average daily attendance."

Beginning with July, 1905, California makes a big advance toward equalization by abandoning the school census as the sole basis [23] for the state apportionment to the counties. [24]   After July 1, the state apportionment to the counties will be made on the basis of $250.00 for every teacher assigned to the different districts by the county superintendent, and the balance on average daily attendance.   The teacher, however, instead of being determined by actual teaching, is still determined by the seventy census children basis, as provided for in the first sub-

[22] By Assembly Bill No. 277, Leg. Ses. of 1905, this division is amended to read, after July 1, 1905, as follows:

" Third. $550.00 shall be apportioned to each school district for every teacher so allowed to it; provided, that to districts having over seventy or a multiple of seventy school census children and a fraction of seventy less than twenty school census children, there shall be apportioned $25.00 for each census child in said fraction."

This entirely abolishes all distinctions as between schools, making equal provision for the small school and for the large school. The teacher is the real unit recognized. The large apportionment also makes the system practically a county system of support instead of a district system, the entire county pooling effort to maintain the schools of the county. The result is good schools in the country, in the mountains, and on the edge of the desert, as well as in the cities and towns.

[23] *Senate Bill No. 236*, Ses. of 1905.

[24] For a full discussion of the reasons for this change and illustrations of the inequalities existing in California under the census basis of apportionment to the counties, see the numbers of *The Western Journal of Education* (San Francisco) for January and February, 1905.

division of the county apportionment law quoted above. The reason for making such an artificial provision was, that by so doing, a slightly larger proportion of money would be diverted from the counties containing large cities to the essentially rural counties of the state. The idea underlying this arrangement was that the counties containing large cities have a proportionally greater aggregation of both people and wealth, and hence are better able to provide extra educational facilities and to care for themselves, while the rural counties stand in greater need of aid. As a practical result the counties containing large cities receive an allowance for about 90% of the teachers they employ, while the rural counties receive an allowance for about all the teachers they employ. The results, though, are by no means even, as the following tables show. In the first of the two tables we use the ten counties allowed the largest number of teachers and the ten counties allowed the smallest number of teachers.

TABLE No. 60.

RESULTS OF THE CENSUS METHOD OF DETERMINING THE NUMBER OF TEACH-ERS COMPARED WITH THE NUMBER ACTUALLY EMPLOYED.

(Calculated from data given in the *Bien. Rept. Supt. Pub. Instr., Cal.,* 1904, and a Department circular of Jan. 11, 1905.)

Counties.	Number of teachers. Allowed on 70 census basis.	Actually Employed.	Counties.	Number of teachers. Allowed on 70 census basis.	Actually Employed.
San Francisco...	1,306	996	Modoc..........	40	40
Los Angeles....	790	1,131	Lassen..........	36	35
Alameda........	526	575	Mariposa........	36	33
Santa Clara.....	260	293	Plumas..........	31	32
Fresno..........	224	254	Sierra..........	23	24
Sonoma.........	201	221	Trinity..........	24	24
San Diego.......	195	216	Inyo............	24	22
Sacramento.....	176	241	Del Norte.......	18	18
Humboldt.......	162	165	Mono..........	11	11
San Joaquin.....	155	166	Alpine..........	3	3

An inspection of the first two columns of figures shows the inequalities in results when an artificial method of determining an actual thing is employed. This may be shown further by calculating the values for the five largest cities in the state, high school teachers being excluded from the calculation.

TABLE No. 61.

(Calculated from data given in the *Bien. Rept. Supt. Pub. Instr. Cal.*,
1904, statistical tables.)

Cities.	Census, 1904.	Teachers allowed for 1904-05	Teachers employed, 1903-04. Whole number, including Kn.	In kindergartens alone.	Per cent. of whole allowed for.
San Francisco...	97,353	1,391	996	0	131%
Los Angeles.....	35,411	506	665	87	76%
Oakland.........	17,222	246	226	2	109%
Sacramento......	6,324	90	137	15	65%
San Jose........	5,345	77	99	0	78%

These two tables show sufficiently well that a method of arti-
ficially determining the number of teachers to be paid for by the
use of the school census is not one calculated to give even or
satisfactory results. Our discussion of the school census basis in
Chapter IX would have indicated this in advance. The city
which has a large private school enrollment or which does not
adequately provide for the instruction of its children will receive
pay for more teachers than it actually employs, while the city
which provides good schools and has but a small private school
enrollment will employ many more teachers than it receives an
allowance for. The premium here, as in all other cases where
the school census is used as an apportionment basis, is placed on
the wrong side. While the theory underlying the California plan
is good in so far as it recognizes a greater ability to care for
themselves on the part of the cities, the practical working out of
the plan is very defective in that it gives the most, proportion-
ally, to the city which does the least for itself.

If the number of teachers to be paid for is to be determined
by any artificial method, then, from the conclusions arrived at in
Chapters IX, X, and XI, average daily attendance would seem
to be a far better and a far more just basis to use in determining
the number. The state average for average daily attendance on
census was 53% for 1903-04 (Table No. 34, Chapter IX). This
would give about one teacher for every thirty-seven children in
average daily attendance at school. As the percentage varies
somewhat from year to year, thirty-five would be a better num-
ber to use than thirty-seven. The figures for average daily

attendance for the cities are not given in the 1904 report except for San Francisco, but for this city one teacher for every thirty-five children in average daily attendance would allow the city an apportionment on 999 teachers for 1903-04, and 1,011 teachers for 1904-05, a number very close to actual needs and service rendered. The use of an average daily attendance basis for artificially determining the number of teachers to be allowed and apportioned on would make some just allowance for the efforts made by a city in maintaining kindergartens, which is not fully recognized under the census basis of determining the number. So far as the teacher apportionment is concerned, as now determined on the census basis, San Francisco with no kindergarten teachers stands on the same basis as Los Angeles which employs eighty-seven. If the number of teachers to be paid for were determined by an average daily attendance of thirty-five for each teacher, Los Angeles would receive about fifty additional teacher-quotas because of the kindergartens it maintains. Under a teacher apportionment basis, where the number of teachers to be paid for is determined by the number of teachers actually employed, Los Angeles would receive eighty-seven additional teacher quotas.

By far the most just plan, though, as well as the easiest plan from an administrative point of view, is to pay a definite sum for every teacher actually employed during the year, and an additional definite sum for any teacher added in the middle of the year to relieve crowded class-rooms or overworked teachers. This places a premium on employing a sufficient number of teachers to teach the children in the schools properly. If a city will reduce its per teacher enrollment from fifty to forty children, or will put in extra teachers whenever extra teachers become necessary, the state ought to place a premium on such efforts, because such efforts are in the interests of a better education. If a large country school will employ a second teacher instead of dividing its district, the state ought to give a premium to the district for an effort so clearly in the direction of better education, and also do this without regard to the number of census children [25] or

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[25] Under a teacher basis it would of course be necessary to limit the conditions under which a new district may be formed, such as a requirement of so many children of school age, distance from any other school, etc. This, however, ought to be done in any case.

the enrollment or attendance at the school. There is little danger of the employment of too many teachers, but even this could be safeguarded by making the teacher employed only a partial basis for the apportionment of funds, and granting the remainder on the basis of daily attendance.

The teacher actually employed basis is more just and better from an administrative point of view, further, because it makes possible for the state to recognize at once and without special legislation a number of very desirable efforts now made by the larger communities and for which, under a census basis, they receive no recognition whatever. Under this heading we include the employment of kindergarten teachers, manual training teachers, domestic science teachers, teachers of city schools for the deaf and blind, teachers in parental schools, the ungraded-room teacher found in a few cities in connection with each large school building, and whose work consists in giving special individual instruction to those in need of such assistance, evening school teachers (counting as part time teachers), special supervisors, etc. At present these are usually required to be paid for entirely by the communities maintaining them, and this is defended on the ground that the cities are richer and already get more than their share of the present school money. A state premium on these efforts would not only be justice to the cities, but would have a most beneficial effect on the smaller cities and towns by encouraging them to add some of these desirable features to their schools as well. Few states have as yet given any recognition to any other than the ordinary type of teacher and school, and the result is that these extra forms of instruction are now found almost entirely in the cities.

Under a census basis of determining the number of teachers, a city of ten thousand school census children, which maintains kindergartens, manual training, domestic science, a parental school, ungraded-room teachers, evening schools, special supervisors, and a grade teacher for every forty children, will not receive a cent more of the state and county money than a city of the same school census size which maintains nothing but the ordinary grade schools and teaches the children in these in classes enrolling fifty-five or more children each. Under an enrollment or attendance basis the kindergartens would receive recognition, as would additional pupils put in the schools by reason of the en-

forcement of the compulsory attendance law, but the pupils instructed by the other classes of teachers would already have been counted once somewhere else.   Under a teacher-actually-employed basis each additional type of teacher is definitely recognized.

Once do away with all artificial methods of determining the number of teachers and the way is at once open for a definite state recognition of every effort which a community will make for itself.   If a city with a hundred primary and grammar grade teachers each teaching fifty children will employ twenty-five additional teachers so as to teach these same children in classes of forty each, the state will add twenty-five " teacher's quotas " to the city's apportionment; if the city will add seven kindergarten teachers, the state will add seven additional " teacher's quotas "; and if the city will further add two manual training teachers, two teachers of domestic science, a teacher for the seven or eight deaf children in the city, and a supervisor of music, the state will add six further " teacher's quotas."   The small town and the country district may also share on equal terms.   Every large country school which changes to a two-room school will receive a double quota, without reference to what its school census may be.   Every town school which adds an additional teacher will be similarly rewarded.   If three adjacent towns will each provide a manual training equipment, and unite in employing a manual training teacher who will give a certain portion of his time to each town, each town will receive in return from the state one-third of a regular teacher's quota toward paying this special teacher's salary.   For every additional teacher made necessary by the enforcement of the compulsory attendance law, a new teacher's quota is added.   Under such a plan the necessity of years of discussion to amend the apportionment act [26] for the recognition of each new undertaking is obviated; the law works justly and automatically, rewarding effort of any kind wherever and whenever it has been made.

[26] California has already found it necessary to amend the apportionment act to include oral day schools for the instruction of deaf children, but no other type of extra teacher has as yet received any recognition. As the law now stands, a special amendment will be necessary for each new type of teacher desired to be recognized.

The teacher actually employed, then, forms a very satisfactory unit for use in the apportionment of school funds. It is a definite item, is exactly proportionate to the efforts made by a community in providing teachers for its schools, is just to the small country school as well as to the large city school, and is automatically adjustable to changes in a school system and to the introduction of new and desirable educational efforts. It does not, however, place any direct premium on regularity of attendance, length of term, enforcement of the attendance and child labor laws, or on the efforts to build up a public pride in the public school system, and in these respects it is particularly defective. Combined with such a basis as aggregate days' attendance, which places a premium on all these efforts, it would seem to form one of the best combination bases of apportionment that could be used.

Best

How such a combination basis would work out may be shown by comparing the same series of small districts used in Table No. 48, Chapter XI, where the income of such a series of small rural districts was compared under the census, total enrollment, forty-day enrollment, and average daily attendance bases of apportionment, using the percentages for the state of Wisconsin, for the year 1903-04. Let us use these same small districts, and suppose that the Wisconsin law for 1903-04 had required the state apportionment to be made by first giving $80.00 to every district, town, and city in the state, for every teacher actually employed the preceding year, and that the remainder should then be divided to each district in proportion to its average daily attendance. Multiplying the number of teachers employed in the state (13,551 during 1902-03) by 80, and subtracting this product from the total apportionment ($1,400,612.77), gives us a balance of $316,532.77 to be apportioned on average daily attendance. At the same percentages used in calculating the values for Table No. 48, viz., 61% of the total census enrolled, and 72% of the total enrollment in average daily attendance, we get an average daily attendance for the state of 333,189, which would make the apportionment on average daily attendance worth 95 cents per pupil. Bringing forward portions of Table No. 48, and calculating the other values under the suggested combination plan, we get the following comparative table:

TABLE No. 62.

INCOME OF SMALL SCHOOLS COMPARED, UNDER THE CENSUS BASIS AND UNDER
A COMBINATION APPORTIONMENT PLAN.

Census, 4 20 Yrs.	Enrollment (a) 60% of census.	Av. Dy. Att. (a) 75% of enrollment.	Amount received from apportionment.	
			On census (a) $1.82½	On combination (a) $80 + 95c. per pupil in av. dy. att.
11	7	5+	$20.08	$84.75
16	10+	8—	29.20	87.60
23	15	11+	41.98	90.45
31	20+	15	56.38	94.25
39	25+	19—	71.18	98.05
46	30	23—	83.95	101.85
62	40+	30	113.15	108.50
77	50	38—	140.53	116.10
92	60—	45	167.90	122.75

This shows that up to an enrollment of about thirty-eight the schools would gain, but above about thirty-eight they would lose. Those which would lose most are the ones with the largest census, and, hence, those having a large number of parents to contribute to the support of the school. The last school given may be taken to represent a city grade class. If it is a country school, an additional $80 could be earned at any time by adding another teacher. All schools are given an approximately even start, as shown by the last column. This is the real merit of the plan, as it makes the school the unit, and not the census child. The Wisconsin apportionment being small, only a small premium can be placed on regularity of attendance. A plan of this kind, to work best, requires a somewhat larger apportionment than that given by Wisconsin. If aggregate days' attendance had been used, the results would be somewhat different, as length of term would then have been a factor in determining the size of the apportionment.

This illustration represents only one of a number of combination plans, the aim of all of which is to give each school a somewhat even start. To do this, the "district quota" or the "teacher quota," in some form or other, must enter as an element. Indiana's [27] and Alabama's [28] requirement that the state

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[27] *Ind. Laws of 1897*, p. 291. *Ind. Rev. Stat. of 1901*, Sec. 5973. The effect of this is to first make the 16th section fund of every township as large (per capita) as that of the township having the largest per capita fund. If the State fund should be insufficient or only sufficient for the

funds, which the counties receive, shall first be used to equalize the various township 16th section funds before making the county apportionment on census; South Carolina's [29] requirement that all schools first be equalized to $75 before distributing the balance on enrollment; Kentucky's [30] considering that all districts have a school census of at least forty-five children; and Washington's [31] provision that all schools shall be considered as having at least two thousand days of attendance, are illustrations of how states have tried by indirect means to recognize the school or teacher unit. The setting aside of a district quota by Idaho, Wyoming, Nebraska, and Oregon, before apportioning the remainder on attendance, represent definite attempts to provide for the small school, where tax-payers are small in number and taxable property is small in amount, by placing it on a plane of partial equality with the town or city. New York, New Jersey, Vermont, and Pennsylvania have carried the matter to its logical conclusion and made the teacher actually employed a definite unit in their combination plans for the apportionment of funds. California and Nevada, though by an indirect method, have also made the teacher the main factor in their combination apportionment plans.

Table No. 37, Chapter IX, gives a few of the combination plans in use, and we have mentioned these more in detail in a number of places in the preceding pages. The best, and at the same time the most flexible, combination basis, as we shall show more fully in the succeeding chapters, is a combination of teacher-actually-employed and aggregate days' attendance. If the length of term is nearly the same throughout the entire state, then aver-

purpose, then the township having the largest 16th section fund would not receive any of the State fund.

[28] "All townships or school districts, having an income from trust funds or from the sale or lease of 16th section lands, shall not receive anything out of the balance of the education fund to be apportioned, until all other townships or school districts, having no trust fund, shall have received an equal per capita apportionment with the townships or districts having such income." *Ala. Code of 1897*, Ch. 100, Art. 9, Sec. 3604.

[29] See footnote 8, Chapter X

[30] *The Common School Law of the Commonwealth of Ky.*, 1904, Art. I, Sec. 2.

[31] See footnote 24, Chapter XI.

age daily attendance will serve about as well as aggregate days' attendance, but the latter is more flexible, as we shall point out more fully in Chapter XV, measures the work of the school more closely, and is to be preferred. The difference, though, where the length of the term throughout the state is about the same, is not one of fundamental importance.

This combination of bases to provide a means of apportioning funds, so as to more nearly equalize the apportionment to all districts, represents a marked improvement over any single basis, because it enables a state to more nearly equalize the apportionment to each school unit. A first division is made equally to all, and a remainder reserved for use as a premium on the efforts of the community. This is certainly a much more equitable basis of apportionment than the per capita on census basis, and the time will come in each of the states when school men and legislatures will so regard it. When this comes to be, the second great step in the attempt to equalize educational burdens and advantages, as outlined at the close of Chapter VI, will have been taken.

CHAPTER XIII

Distribution with Reference to Effort and Need

All of the methods of apportioning school funds which we have so far considered, the taxes-where-paid and the valuation bases alone excepted, have had as their purpose the apportionment of funds to the different school units in some relation to the educational work which it is supposed that these districts will have to do. The population and school census bases aim to distribute the money with reference only to the number of children of the so-called " school age;" the enrollment basis considers only those of " school age " who really enroll in the schools; the average membership basis considers only those who belong to the schools; the attendance basis considers only those who attend the schools; and the aggregate days' attendance basis considers also the length of term which the community provides. Each of these bases is an improvement over the one next preceding it, but each is unjust to the small school and each gives to the larger school more than its proper share. Any one of these bases punishes the man whose calling is such that he is compelled to live on the farm or in a sparsely settled region by taxing him at a high rate to support a small school which is often a poor school, and also punishes his children by providing them with a poorer school, a shorter term, fewer educational advantages, and usually a poorer teacher than is provided for children who are fortunate enough to be able to attend a good city school. This places a premium on parents moving to the city to secure better educational advantages for their children, when the premium ought rather to be placed on the opposite tendency. The district-quota and the teacher-basis types of distribution tend to equalize the apportionment between all types of schools, and to provide the small school with more money with which to employ a better teacher and to maintain a better school. The various combination types of distribution, in which the teacher or the district enter as one of the bases of apportionment, and which we de-

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scribed briefly at the close of the last chapter, have the double aim of first providing every school with an equal minimum sum and then of distributing what remains on some basis which recognizes the size of the school or the efforts which the community makes for itself. This results in a much closer equalization of apportionments to each school, leaving to the communities to provide by local taxation for the remainder of the funds necessary to properly maintain the school. The larger the school the larger the number of parents there will be to help pay the taxes, and, in general, the more densely the region is populated the greater will be the taxable wealth behind each school maintained.[1]

The result is a tendency toward the equalization of tax-rates for schools in cities, towns, and country, as was shown in Tables No. 58 and No. 59, Chapter XII, but real equalization of burdens will not be accomplished in any very marked degree. The communities where the taxes would be highest under local taxation or under the census basis of apportionment would of course experience the greatest reduction, while communities where the tax was the least would probably experience a small increase, but the difference in tax-rate required to produce the same amount would still be great, as measured between the highest and the lowest. Even after making proper allowances for the greater cost of education in the large cities the tax-rate for schools required there would still be lower than in most country districts, as was pointed out under Chapter XII, and in those cities where the per capita wealth is greatest the tax-rate required for schools would probably still be lower than the average school tax-rate for the state. All that the combination type of apportionment tries to do is to approximately equalize the apportionments given to the different districts for each school maintained. In doing this the state recognizes the teacher of each school as the unit of cost instead of the pupil, and consequently places all schools on the same unit basis, the variations in apportionments being in the nature of premiums on enrollment, regularity of attendance, and length of term provided. If this change in unit were generally adopted it would mark as great an advance toward the equaliza-

[1] A study of the many tables given in Chapters III and IV will substantiate this statement in the main, though of course there are a number of individual exceptions. It is very much more often true than not true, though.

tion of the burdens and the advantages of education as was made when the census basis of apportionment was substituted for the " taxes-where-paid " basis. All districts or schools would thus be placed on a somewhat equal basis at the start; what each could do afterward would depend on the amount of taxable property behind each school maintained and on the efforts which a community saw fit to make for itself.

But even after this approximate equalization of apportionments has been made it will happen that the burden of providing the remainder necessary for maintenance will still be very unequal. What is a very slight effort for one community is an average load for another and an excessive burden for a third. What different communities will be able to provide, too, will be very different. With the maximum local tax allowed by law one community will have difficulty in meeting the minimum requirements set by the state, while another community with only half the allowed tax-rate can do much more than the state requires. A school located in a rich farming section will in all probability be easier to provide for than one in a poor and hilly country; a city that is to a large extent a business or a residence city will probably be able to provide for its schools better and easier than can an essentially manufacturing city with a large working-class population. All the inequalities in the distribution of people and wealth pointed out in Chapter II come in to modify and determine what a community can do for its schools.

Table No. 5, Chapter III, giving the rate of tax levied and the amount produced per pupil in average membership at the schools, with the rank of the town in each, for the seven Massachusetts towns levying the highest rate of tax, the seven levying the lowest rate of tax, and the seven largest cities in the state, will serve to illustrate the point very well. Nahant, for example, on a tax-rate of 1.10 mills produced $52.10 per pupil in average membership, while Goshen, on a tax-rate of 1.50 mills produced but $4.43 per pupil, and East Longmeadow, on a tax-rate of 8.56 mills produced but $14.17 per pupil. Among the cities, Boston, on a tax-rate of 2.39 mills produced $33.86 per pupil, while Lynn, with a tax-rate of 4.56 mills produced but $28.65 per pupil. The detailed statistical tables given [2] by the Secretary of the Massachusetts State Board of Education for the various Massachusetts

[2] *64th An. Rept. Mass. Bd. of Educ.*, 1899-1900, pp. 267-298.

cities and towns for the year 1899-1900, showing the valuation, the rate of school tax, the rate of all taxes, the per cent of town taxes devoted to education, and the cost of the schools per pupil, give abundant illustrations of the inequalities existing. The four extreme cases at each end of the scale, compared with Boston and the average for the state, are given in Table No. 3, Chapter III.

The comparison made in some detail between the town of Ashford and the town of Putnam, in Windham County, Connecticut, following Table No. 8 in Chapter IV, is a good illustration of this point. Table No. 15, Chapter IV, giving the highest and the lowest rate of tax in mills required to produce $250 by local taxation in a number of towns and counties in seven different states is a further illustration. The rate of county tax which would be required to produce $10.00 per child in average daily attendance in the different counties of the State of Washington as given in Table No. 20, Chapter VI, is a still further illustration of the inequalities in taxing power of even large groups. The variations in taxing power among the different towns of Windham and Fairfield counties in Connecticut, as shown in Tables No. 7 and No. 8, Chapter IV, are still further illustrations, and show very well how variations in group averages mean still wider variations among the different members of the groups. What certain towns could do with apparent ease other towns could do only with the greatest difficulty or not at all.

The third great step in the equalization of educational burdens and advantages, as was pointed out at the close of Chapter VI, will be taken when the state gives definite recognition to these inequalities in the taxing power by making special grants to necessitous communities and, if necessary to properly relieve excessive burdens and to equalize common advantages, withdraws all aid for the ordinary type of education from those larger and wealthier communities which have shown their ability to fully care for themselves. So far, if we except the county system of distribution in use in certain Southern states, but seven states have made any definite beginning at this form of equalization.

The New York " district quota " apportionment, which we have previously described in Chapter XII, is based on a slight recognition of the difficulties which small and poor communities have in maintaining their schools, in that it gives a larger initial

quota to poor communities than to those having greater wealth.[3]
All districts with a valuation of less than $40,000 receive $150
for the first teacher, while those having a valuation of over $40,-
000 receive only $125 for the first teacher. After the first teacher
the quota is uniformly $100 per teacher for all districts. This is
as far as New York has gone in the matter, but even this begin-
ning is important. Such legislation is in accordance with what
an inspection of the tables in Chapter IV would lead us to con-
clude, viz., that, in general, the greater the total wealth of a com-
munity the greater is the average wealth behind each pupil in the
schools and behind each school maintained. The long study
given by the Massachusetts school authorities to the methods of
assisting poor communities has led to similar conclusions with
reference to the towns of Massachusetts.[4]

In North Carolina the effort at equalization has taken the
form of an attempt to secure a four months' school in every
school district of the state. The state school money is appor-
tioned to the counties on the census basis, and is in turn appor-
tioned by the counties to the various townships on the same
basis, but the state law provides that, before making the county
apportionment on the census basis, the County Board of Educa-
tion shall set aside one-sixth of the total fund to be apportioned
by the county, if so much shall be necessary, to be used by them
in equalizing the census basis apportionment so as to secure to
every school in the county a four months' term of school.[5]
This reserve fund of one-sixth not being sufficient, in many
counties, to secure a four months' term to all districts, the
Legislature of 1903 appropriated an annual sum of $100,000 to
be distributed by the State Board of Education, in proportion to
need, to those districts where the application of all funds allowed
by law would still not secure a four months' term of school.[6]

This is a conscious and a definite attempt to equalize educa-
tional advantages by direct state appropriations to poor counties
to enable them to meet the minimum term requirements pre-

[3] *Consolidated School Law of N. Y.,* as amended to June 1903; Title
II, Art. 1, Sec. 6, div. 1.

[4] *66th An. Rept. Mass. Bd. of Educ.,* 1901-02, p. 208.

[5] *Public School Law of N. Car.,* as amended to 1903, Sec. 24.

[6] "An Act to appropriate $200,000 to the public schools of North
Carolina," ratified March 9, 1903.

scribed by the laws of the state. It is not only a wise example of a state attempt at the equalization of opportunities, but also a good example of state justice. The state, having deemed it desirable that every child in the state should have the advantages of at least four months of school each year has made such a general legal requirement, and made it, as a state should make it, without reference to whether or not all townships were able to meet the demands of the law. Finding that many were not able to do so, and that the ordinary means provided were insufficient, the state, as a state in justice ought to do, made definite legal provision for extra and proportional aid to those poor communities unable to meet the standards set by the law.

In the State of New Jersey the law provides that 90% of the state two-and-three-quarter-mill school appropriation and tax shall be returned to each county on the basis of property valuation, as explained in Chapter VII, and that the remaining 10% shall be reserved to be apportioned "equitably and justly" according to the discretion of the State Board of Education.[7] This is a means provided to counteract the bad effects of the undesirable method of distributing the 90%.

So far but little seems to have been done in the distribution of the 10% toward an equalization of the real burdens of support.[8] The distribution is made to the counties as wholes, is there added to the general county school fund, and is then divided among all districts in the county instead of only to those most in need of extra aid. The state law requires that every district in the state shall maintain a nine months' term of school each year under penalty of forfeiting the entire state appropriation and state school tax, but gives the State Superintendent of Public Instruction power, "for good cause shown, to remit said penalty."[9]

[7] "Ten per centum of the full amount of the state school tax annually raised shall be known as a reserve fund, and shall * * be apportioned among the several counties by the State Board of Education, equitably and justly according to its discretion."

School Law of New Jersey, as enacted by the 2d Spec. Ses. of the 127th Leg., and Approved Oct. 19, 1903; Ch. I, Art. XVII, Sec. 179.

[8] "Or more concisely and definitely stated, barring a small contribution made to two counties that are much wealthier in school population than in taxable property, the state school tax of each county is returned to it." *An. Rept. State Bd. Educ. of New Jersey*, 1903, p. xx.

[9] *School Law of New Jersey*, * * approved Oct. 19, 1903; Ch. I, Art. V, Sec. 37.

Notwithstanding this provision, 138 of the 397 districts in the state in 1902-03 failed to maintain a nine months' school.[10] With a distribution of the reserve fund direct to the districts on the basis of local effort and local need it is probable that much better results could be obtained, and probably all districts could be brought up to the nine months' standard.

The Vermont attempt at equalization has been worked out on much better lines and accomplishes a real equalization of burdens, so far as the money at hand will go. Out of the annual state school tax of eight cents on the one hundred dollars, the sum of $15,000 is first set aside for the equalization of educational burdens, and the balance is distributed (Chapter XII) " in proportion to the number of legal schools sustained the preceding year." [11] For the distribution of the $15,000 set aside for equalization the Vermont law provides:

"The sum reserved * shall be divided among the towns which raise the higher per cent of tax for school purposes, in order to equalize taxation and to afford equal school privileges as nearly as possible, at the discretion of the state treasurer, the state superintendent of schools, and the examiner of teachers for Washington County, who are hereby constituted a board of distribution for this purpose. But no town shall receive any portion of this money unless said town shall raise at least fifty cents on the dollar on the grand list of said town for school purposes." [12]

This provides for a real equalization, though the limits for sharing may be rather high. Below fifty cents there is of course no equalization. Each town receives a definite quota for each "legal school" maintained, and then another portion, even though small, is given only to those towns whose rate of tax for schools is over fifty cents. The object is to eliminate excessive tax-rates for the maintenance of what is a common benefit. Each town is given an equal portion, and then those who find the greatest difficulty in maintaining their schools are given additional aid.

In 1899 New Hampshire made a somewhat similar small but definite attempt to relieve the excessive burdens for school sup-

[10] *An. Rep. State Bd. of Educ. New Jersey,* 1903, statistical table XII, page lxx.

[11] *Vermont Statutes of 1894*, Title II, Ch. 40, Sec. 762.

[12] *Vermont Statutes of 1894*, Title II, Ch. 40, Sec. 761b, as amended by the *Laws of 1902*, No. 30, Sec. 2.

port borne by the poorer towns of that state. The income from the Literary Fund [13] being small, and being distributed on the basis of a two weeks' enrollment in the schools,[14] tends rather to increase the inequalities than to relieve the burdens on poor and sparsely settled towns (see Table No. 48, Chapter XI, for the results of an enrollment distribution). In 1899 an annual appropriation of $18,750 was made from the state treasury to be paid to those towns most in need of additional assistance. The New Hampshire law provides as follows: [15]

This sum " shall be paid by the state treasurer in December of each year to all towns of the state in which the equalized valuation is less than $3,000 for each child of the average daily attendance in the public schools of such towns during the school year next preceding, and such other towns as may be added, * * * in direct proportion to the equalized valuation per child. * * The governor and council may, upon recommendation of the superintendent of public instruction, add to the class of towns specified above such other towns as may seem from their peculiar conditions to need relief from too great a burden of school taxation."

The statistics as to the aid granted in December, 1902, under the provisions of this act show that [16] aid was granted to seventy-two towns, only two of which had a total valuation as high as one million dollars. In amount the aid granted was as follows:

Towns	Valuation per pupil			Highest aid.	Lowest Aid.
7	Over $1,700	and under	$2,000	$590.27	$56.06
34	" 2,000	" "	3,000	966.13	74.81
23	" 3,000	" "	4,000	773.78	18.11
8	" 4,000	" "	4,900	193.02	25.11

Thirty-one towns above the $3,000 limit have thus been added under the discretionary power granted to the governor and council, on the recommendation of the superintendent of public instruction. This provision for the addition of other towns, if deemed wise by some responsible body, is a wise provision of

[13] This was worth fifty cents per pupil enrolled for two weeks for the year 1902.

[14] See footnote 6, Chapter X.

[15] "An act to equalize the school privileges of the cities and towns of the state"; Ch. 77, *N. Hamp. Ses. Laws of 1899*, Sec. 6.

[16] *Rept. Supt. Pub. Instr. N. Hampshire*, 1901-02, pp. 317-318.

this act. However carefully a law may be framed, there will be certain deserving communities which are debarred by the limits set by the law, and yet these limits could not be widened without including many communities which are not deserving of aid. Any such legislation must of necessity be in the nature of compromise with a view to doing justice to the greatest number, and a provision making the admission of certain other deserving or peculiarly situated communities discretionary with some interested and responsible educational body is a very valuable addition to such a law.

These efforts of Vermont and New Hampshire to equalize the burdens of taxation for schools are especially noteworthy, and the beginnings which they have made serve as a good example to other states. It is very desirable that the future should see a somewhat general adoption of some similar provision for equalizing the burdens and the advantages of education.

An inspection of the last three columns of Tables No. 7 and No. 8, Chapter IV, giving the rate of tax in mills required to produce $250 per teacher employed, the rate of local tax actually levied, and the cost per pupil in average daily attendance and for maintenance only in each of the towns of Windham County (Table No. 7) and Fairfield County (Table No. 8) in Connecticut, shows, as we pointed out in Chapter IV, the presence of very great inequalities in the taxing power of the different towns. A high tax-rate with a low expenditure per pupil, and a low tax-rate with a high expenditure per pupil, very frequently go together. The distribution of $2.25 per capita to the towns by the state on the census basis only tends to increase the inequalities in tax-rate as between the poor and sparsely settled towns and the wealthier and more densely populated towns. Yet the state law demands that every town shall maintain a nine months' term of school in every school in the town. This is a uniform demand, and one which the towns have very unequal resources to meet. There are only two ways of meeting such a demand unaided. One is to raise very high taxes; the other is to employ very cheap teachers. An inspection of the statistical tables for these Connecticut towns would indicate that they are usually forced to adopt a combination of both ways.

To in part relieve the burdens of local taxation in the poorer towns the Connecticut legislature passed a law in 1903, on the

recommendation [17] of the Secretary of the State Board of Education, the aim of which was to equalize the burdens of school taxation. It was calculated,[18] at the time the law was proposed, that if every eligible town in the state took advantage of the provisions of the law the added cost to the state would be but $57,000. The law as enacted provides: [19]

"Sec. 208. Every town having a valuation of less than $500,000 may annually receive from the treasurer of the state, upon the order of the comptroller, a sum which will enable the town to annually expend for the support of public school $25.00 for each child in average daily attendance, as determined by the attested registers for the school years ending July 14th; provided, the payments of principle or interest on indebtedness, the expense of new buildings, sites, and permanent improvements shall not be included in obtaining the cost of each scholar in average daily attendance; and provided, that the said state grant shall be expended only for teachers' wages.

"Sec. 209. The comptroller shall not draw an order in favor of a town under the provisions of Sec. 208 unless the town, in the year for which said average attendance grant is made, shall have laid and collected a tax of not less than four mills on its grand list for the support of schools and shall have expended the same."

This law is practically a statement by the state that a town with a total valuation of less than half a million of dollars shall not be asked to raise more than four mills of school tax each year for the support of schools, and is in effect an attempt to equalize both the advantages of education and the rate of taxation for schools. The advantages of education are equalized to $25.00 a year to each child in average daily attendance, and the burdens to the parent are equalized to four mills of tax for the support of the school to which he sends his child. How much a school will have to spend will now depend on how economically the schools of each town are managed, and how well the town looks after the attendance of its pupils. The great freedom given the towns of Connecticut in the formation of districts, without limitations as to size, has led in many towns to the undue multiplication of small districts. Towns having numbers of these small districts would of course receive but a small amount of money

[17] *Report Conn. Bd. of Educ.,* 1903, p. 38.

[18] *Report Conn. Bd. of Educ.,* 1903, p. 10.

[19] *Laws of 1903,* Ch. 102, Secs. 1, 2; *Conn. Laws relating to Schools,* 1904, Secs. 208, 209.

per school, but towns which have properly consolidated their schools would receive a liberal allowance. This may be shown by calculating the amounts which two towns in Windham County (Table No. 7, Chapter IV) would receive in aid under the provisions of this law. The town of Canterbury, in Windham County, for example, had a school census of 156, an average daily attendance of 119, and maintained 11 schools. This would ensure an average of $270.45 per school for maintenance, and, under the district system in use, from $125 to $375 per school.[20] The next town in the same county, alphabetically, the town of Chaplin, had a school census of 102, an average daily attendance of 60, and maintained 3 schools. This would give this town an average of $500 per school for maintenance. The Connecticut law thus places a premium on the town as opposed to the district system of management, and on the concentration of schools instead of their further subdivision. These are two very desirable things upon which to place a premium in Connecticut. It also places a decided premium on regularity of attendance at the school. No recognition is given to the teacher unit as such, but under the unrestricted conditions for the formation of new districts by the towns, and in view of the large number of small districts which exist in some of the towns,[21] this would have been unwise. No discretionary power is given to any one to add towns of a higher valuation than half a million dollars, but whose peculiar circumstances make some special aid desirable.

In the state of Massachusetts a studied effort has been made for over three decades to apportion the small amount of money at hand so as to obtain the largest results from its distribution. The income from the Massachusetts school fund has been and still is so small that its value as a general equalizer would be slight, and this has forced Massachusetts to devise a better system for the apportionment of its fund than any uniform basis. For the year 1901-02 the amount distributed to the towns [22] was

[20] Calculated from the census data for each district and the town average of 73.7% of census in average daily attendance.

Annual Rept. Conn. Bd. of Educ., 1903, pp. 312, 275.

[21] See the table giving the enumeration of children by districts in each of the towns of the state, given in the statistical tables in the *Rept. Conn. Bd. of Education* for any year.

[22] *66th An. Rept. Mass. Bd. of Educ.*, 1901-02, in "Abstract of the Massachusetts School Returns," p. xcii.

only $182,270.84. The school census of September, 1901, showed 483,103 children in the state, 5 to 15 years of age, and the average attendance in all schools for the year [23] was 380,026. These figures would give an apportionment on census of thirty-eight cents per capita, and an apportionment on average daily attendance of forty-eight cents. This is about a half larger per capita than the Iowa apportionment and about half the size of the Kansas apportionment. The problem which Massachusetts has attempted to solve is how to use this little sum of money so as to equalize, as nearly as is possible, the burdens and advantages of education to all. The result has been the evolution of a system of graded aid, granted only to the poorer towns of the state.

The principles which have actuated Massachusetts from the first have been to stimulate the towns to make greater efforts for their own schools and to withdraw aid from the towns and cities whenever their growth and increase in wealth made assistance no longer necessary.

In 1841 Massachusetts definitely gave up total population as a basis for the apportionment of the income from the state fund, the basis of distribution being changed to the number of children of the school census age. The census basis of apportionment was used as the sole basis until 1866, when a combination type of apportionment was introduced, somewhat similar to that in use at present in the states of Oregon and Wyoming. Each town or city was first to receive a district or town quota of $75.00, which in 1869 was raised to $100.00, and then the balance was distributed to the different cities and towns on the census basis. In 1870 this first or town quota used up about one-half of the total fund for distribution, which in that year was only $70,637.62. In 1872 the Secretary of the State Board of Education devoted much space in his annual Report, as we have previously explained in Chapter III, to pointing out the inequalities in taxing power which existed among the various towns, and recommended a state half-mill tax, the proceeds to be distributed to the towns on the basis of their school census. The legislature not seeing fit to adopt this recommendation, in 1874 the entire plan for the apportionment of the income from the school fund

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[23] *Ibid.*, p. lxxxviii.

was revised and a new plan adopted so as to secure better results. Acting on the principle that the larger the actual wealth of a town the larger the per capita wealth behind each pupil in the schools,[24] aid was entirely withdrawn from all towns and cities having a total valuation of over $10,000,000. This excluded 18 cities and towns from and share in the apportionment. In 1891 the basis was changed still further by withdrawing aid from all towns and cities having a valuation of over $3,000,000. In 1896, 98 towns and cities were excluded from any share in the apportionment. These 98 towns and cities contained 82% of the population of the state.

It was further found that no mere property valuation or school population basis would afford adequate and equitable relief to such small towns as those given in Table No. 2, Chapter III, so a graded plan of aid was devised whereby towns of this class should receive an amount in inverse proportion to their valuation, the towns being at the same time forbidden to decrease their efforts to aid themselves and a premium being placed, in the distribution of a portion of the aid granted, on the amount of local taxation which the towns devote to education. In 1895 additional aid was granted to towns having a valuation of not over $500,000 for the payment of high school tuition and for the transportation of pupils, and in 1896 additional aid was granted to towns having a valuation of less than $350,000 for the payment of teachers' salaries.[25]

Inequalities having arisen under the plan in use, due to changing conditions in the towns, the Secretary of the State Board of Education in 1900 urged a further revision, and gave detailed statistics to show the inequalities which had come to exist.[26] In 1903 the plan for the apportionment of the income from the school fund was further revised and all towns having a total valuation of over $2,500,000 were excluded from any share in the apportionment. This excluded 136 cities and towns and

[24] See Tables No. 3, No. 4, No. 5, Chapter III. Also see the *66th An. Rept. Mass. Bd. of Educ.,* 1901-02, p. 208.

[25] The above historical data has been taken from the history of the development of the system of distribution as given in the following:

(1) *64th An. Rept. Mass. Board of Educ.,* 1899-1900, pp. 17-18.

(2) Whitten, R. H., *Public Administration in Massachusetts,* pp. 33-35.

[26] *64th An. Rept. Mass. Board of Educ.,* 1899-1900, pp. 259-298.

88.4% of the school population. The law at present provides for the distribution of the income as follows:[27]

1. A direct grant to each town, analagous to the "district quota."
    (a) If total valuation is under $500,000 a grant of $500; and if the total town tax-rate exceeded 18 mills, an additional grant of $75.
    (b) If valuation of $500,000 to $1,000,000; a grant of $300.
    (c) If valuation of $1,000,000 to $2,000,000; a grant of $150.
    (d) If valuation of $2,000,000 to $2,500,000; a grant of $75.
2. The remainder to be distributed to the towns on the basis of the proportion of the total town tax devoted to schools, as follows:
    (a) If one-third of total, a proportion of the remainder expressed one-third.
    (b) In a similar manner, if one-fourth, then one-fourth; if one-fifth, then one-fifth; and if one-sixth, then one-sixth.
3. To be entitled to this grant a town must have:[28]
    (a) Maintained a sufficient number of schools for eight months.[29]
    (b) If the town has 500 families or householders it must also have maintained a high school for nine months.
    (c) Made all school reports, as required.
    (d) Complied with the laws relative to truancy.
    (e) Raised by local taxation for the support of schools an amount not less than $3.00 per census child.[30]

The Massachusetts plan for an equalized distribution is thus based entirely on valuation and tax proportions. Pupils, attendance, and the actual value of the tax are disregarded, except in the one case of towns of less than $500,000 valuation. This plan has been worked out somewhat carefully, and probably gives good results in actual practice, but theoretically it is open to certain serious objections. Two towns might be in the same class as to valuation and yet one have twice as many pupils as the other, and be so situated that it would be required to maintain twice as many schools. Also of two towns in the same class, the one having the larger number of pupils and schools might have the lower taxable valuation. The state grant under 1 would, however, be the same to each in either of these cases. Again,

[27] *Mass. Acts of 1903*, Ch. 456, Sec. 1, amending Ch. 41, Sec. 3 of the *Revised Laws of Mass.*

[28] *Rev. Laws of Mass relating to Pub. Instr.,* 1901, Ch. 41, Sec. 6.

[29] If the total valuation of a town is less than $200,000 the State Board of Education may consent to seven months. Practically all towns provide eight months. See footnote 19, Chapter III.

[30] This provision has remained unchanged since 1865. *Mass Acts of 1865*, 142, Sec. 1.

under 2, a town might devote a large proportion of its total tax to schools (say one-third) and still levy a low total tax (say five mills), while another town might devote but a small proportion of its total tax to schools (say one-sixth) and yet levy a high total tax (say fifteen mills), in which case the first town would receive twice as much money from the school fund under 2 and yet have made but one-third of the actual effort of the second town, and also have devoted one-third less money (1.66 mills as against 2.50 mills) to its schools. It might easily happen under such a plan that a town a little over the valuation set for sharing in the apportionment would have a smaller valuation behind each pupil taught or each school maintained than a town which shared, and might be compelled to devote a larger proportion of its total taxes for schools than other towns of a smaller valuation.

A method of distribution based more on the actual number of mills of tax required, the relation which the income from this maximum tax bore to the number of children in the schools, and to the entire tax-rate of the towns, would seem to have been a more equitable plan than the one now used. The limitation as to sharing based on the total valuation of the towns need not necessarily be changed, though discretionary power given to the State Board of Education to admit certain other especially deserving towns which, due to their peculiar circumstances, find great difficulty in maintaining their schools, would be a desirable addition to such a law.

The Massachusetts plan could be still further improved if a decidedly larger sum were placed at the disposal of the authorities for distribution to necessitous towns. A state tax of half a mill could be made of great service in relieving excessive burdens and in improving the quality of the teaching force in the smaller and poorer towns.

The Massachusetts plan further places no premium on any educational effort other than the per cent of taxes devoted to schools. In this respect the Connecticut plan, with its emphasis on daily attendance, would seem to be much more desirable.

A method of apportioning funds which gives some consideration to the needs of a community and the efforts which it makes to help itself would seem to be a valuable adjunct to any general apportionment plan, whatever might be the bases used for apportionment or the size of the per capita apportionment. Where

the per capita amount to be apportioned is small, as in Massachusetts, and where the variations in valuation are so great as they are there, an apportionment on the basis of need and effort would seem to be the only just basis for the distribution of so small a sum. In states where the per capita amount apportioned is much larger, as for example in Indiana, the method is capable of much use as a partial basis of apportionment. A reserve fund of 5% of the total state apportionment, reserved for purposes of equalization, to be distributed by the State Board of Education according to its discretion, and to those townships which had already raised a certain maximum of tax and were still unable to meet the minimum demands of the state, and to such other peculiarly situated communities as seem to be particularly in need of special aid, would be of very great educational service. Not only could all schools be brought up to the minimum legal requirements as to length of term, kind of school maintained, salary paid the teacher, etc., but it is very probable that a month could be added to the required minimum length of term for all schools in the state, even while retaining the objectionable census method of apportioning the remainder.

The usual method employed, when certain communities cannot meet the demands of the state, is either to increase the general tax or to increase the limits of local taxation. The first plan, under the common census basis of distribution, merely increases the dividend to all, without regard to their need or effort. The second plan merely gives legal permission to communities to increase their own burdens of local taxation, which is usually not done and which in any case affords no real relief. The second plan has recently been employed in Indiana, the legislature of 1903 increasing the local tax limit [31] from 3.5 mills to 5.0 mills in an effort to secure the legal minimum term of six months to every school in the state.[32] This is probably as high a tax as the poorer townships can possibly pay, probably as high a tax for support as they ought to be asked to pay, and probably a higher tax than many communities will feel that they can pay, yet a six months' school is not as long a term as the schools of Indiana ought to have. Were the Indiana legislature to amend the law further and require a seven months' term of all schools

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[31] *Indiana Acts of 1903*, p. 409.

[32] For a statement of conditions existing see Chapter II.

in the state, and set aside 5% of the annual state apportionment as a reserve fund to be used in helping those townships which have raised a five-mill tax and are still unable to meet the requirements of the law, and give the State Board of Education discretionary power to help any township which has raised a school tax of at least three and a half mills for " common schools," and which, due to peculiar conditions, stands in special need of extra help, a seven months' term could in all probability be had in every school in the state, and possibly even a longer term. A reserve fund of 5% would provide about $115,000 for the purpose.[33] No city school and no town school would need to be assisted, as no city had less than 160 days of school in 1903-04, and the towns of but 16 of the 92 counties averaged less than 140 days of school, and all this under the three and a half mill limit, as the five mill limit would produce funds for the schools for the school year 1904-05 for the first time. This would leave about thirty to thirty-five counties, or about one-third of the total number, to which some extra aid would need to be given for the township schools, and $115,000 ought to be ample for this purpose. This calculation is made on the theory that the remaining 95% would continue to be apportioned on the census basis. The adoption of a combination type of apportionment, using the teacher basis combined with the attendance basis, would reduce the number of counties to be aided and would enable the state to further increase the minimum term with the same funds now at hand.

The conditions which exist in Indiana exist in many Western states. It is quite common in these states to closely limit the amount of tax which a township or district can levy, and many districts find themselves unable to meet the requirements of the law. In many of these states the apportionment of a reserve fund on the basis of effort and need would be of very great service. Two examples will serve to illustrate this.

The Nebraska law provides that the voters of each school district, in annual meeting assembled, shall determine the rate of tax for the ensuing year and the length of time the schools shall be taught, " which shall not be less than three months * * in a district having less than twenty pupils of school age, nor less than

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[33] The total apportionment for 1904 was $2,223,714.78. *Bien. Rept. Supt. Pub. Instr., Indiana*, 1904, statistical tables 6a and 6b.

six months in a district having between twenty and seventy-five pupils inclusive, nor less than nine months in districts having more than seventy-five pupils of school age. * * * Provided, That no district shall be deprived of its proportionate share of state school fund when it shall appear * * that the district has in good faith raised and expended the maximum tax allowed by law and the funds so raised have been insufficient to maintain a school for the time herein provided." [34]

The recent Reports [35] of the State Superintendent of Public Instruction give the following information as to the number of districts, length of term, and state apportionment during the past three years:

	1901-02	*1902-03*	*1903-04*
Total number of school districts............	6,666	6,669	6,667
Districts having 9 or more months..........	1,787	1,782	1,792
Districts having 6 but less than 9 months...	3,774	3,863	3,921
Districts having 3 but less than 6 months...	805	697	648
Districts having less than 3 months.........	300	327	306
Total state apportionment to all districts....	$734,362	$645,356	$698,771

With reference to these conditions the State Superintendent has said, in a recent Report: [36]

"Under our existing revenue laws 25 mills, the present limit, is entirely inadequate for the needs of hundreds of districts in Nebraska that are voting this limit, and maintaining from three to six months of school and paying their teachers from $20.00 to $30.00 per month. I therefore urge upon the legislature to provide relief by making 30 mills, exclusive of bonded indebtedness, the limit of taxation for all school districts in the state except those organized under Subdivision XVII, Schools in Metropolitan Cities. This amendment need not effect the thousands of districts that are voting below the 25 mill limit."

This is the same means of relief adopted in Indiana, and it does not afford any real relief. If from 10% to 15% of the Nebraska state apportionment were set aside each year as a reserve fund, to be apportioned by the State Board of Education and according to its discretion, to such districts as have levied the maximum tax allowed by law and yet cannot meet the requirements of the state, and possibly with discretionary power to grant aid to dis-

[34] *School and Land Laws of Nebraska, 1903*, Subdiv. II, Sec. 14.

[35] *17th and 18th Bien. Reports State Supt. Publ. Instr. Nebraska*, statistical summary.

[36] *Rept. State Supt. Pub. Instr. Nebraska*, 1902, Vol. II, p. 1000.

tricts which have levied 20 mills and from their peculiar situation
seem to need relief, a real relief from the burdens of excessive
local taxation could be at once provided for. From the state
statistical returns there seems every probability that by the adop-
tion of this form of relief all schools in the state could be brought
up to at least a six months' standard and the undesirable and
illogical distinction between districts as to length of term could
be done away with entirely. Because a child is unfortunate
enough to happen to live in an arbitrarily formed area where
there are less than twenty children 5 to 21 years of age is no
reason why he should be provided with only half the term of
school of another child in a neighboring artificially formed area
where twenty-five or thirty such children happen to live. By the
reservation of a reserve fund of sufficient size and with an intel-
ligent distribution of the same it might be possible for the state
to provide for a uniform minimum school term of seven months
for all children in the state. No constitutional requirements
stand in the way of any intelligent action.[37]

The State of Oregon also affords another good example. On
page 169 we gave figures for length of term in the schools of
the state. The limit as to length of term below which a district
may not go is three months. In 1901-02 as many as 239 districts
had only a three months' term of school;[38] 130 districts had only
a four months' term; 297 districts a five months' term; 329 dis-
tricts a six months' term, etc. The length of term required by
law cannot be increased very easily, because some counties have
such a low per capita valuation that the county school tax and
the local taxes which may be levied by the districts do not give
sufficient funds to maintain a much longer term. The state ap-
portionment of the income from the school fund is made on
census, and the amount is relatively small. For 1903-04 the
amount apportioned was only $241,234.48, or about $1.68 per
census child.[39] By the use of a portion of this amount as a re-
serve fund for the purpose of partially equalizing school term
and school taxes, and by requiring a local district tax of two, or
three, or possibly even four mills as a prerequisite to sharing in

[37] See footnote 53, Chapter VI.

[38] *Bien. Rept. Supt. Pub. Instr., Oregon,* 1902, p. 237.

[39] *16th Bien. Rept. Supt. Pub. Instr., Oregon,* 1905, pp. 8, 12.

this extra apportionment, it would probably be possible, by the adoption of some such plan for equalization as that in use in Connecticut, to provide a six, and probably a seven months' term of school for every school in Oregon. This, of course, would not be possible without an amendment to the Oregon state constitution, but such an amendment would be worth working for.

Both the single basis and the combination basis types of apportionment provide for an impartial distribution to all according to a uniform law. Of the two, the combination basis type can be made to equalize burdens and advantages very much better than any single basis which may be employed. By calculation from statistical data, a combination basis plan which would give very equitable results, provided sufficient funds were at hand to carry it out, could be worked out in detail for any state. All of these plans, though, single or combined, have the pupil, the district, or the teacher as the unit upon which the distribution is based. None consider the tax-payer, the tax-rate, or the efforts which a community makes to help itself. In almost every state there are certain communities which, after making every effort to help themselves which the law permits, will still be unable to meet the minimum requirements which the law does or ought to impose. The people who form these communities may be engaged in a calling which makes living in a sparsely settled region necessary; they may happen to live in regions where the geological or the geographical conditions preclude the possibility of a high property valuation; or they may be improvident. Whatever the reason or the condition, though, their children need an education which will cost all or more than their parents, with the usual state apportionment to aid them, will be able to provide. The state must always choose between waiting for such communities to become richer before making any increase in the general state requirements, or it must proceed without reference to what such communities may be able to provide. To do the former is not wisdom, though it is the common practice; to do the latter involves additional responsibilities, but these should be accepted by the state. To meet these responsibilities properly requires that the state grant special subsidies to those communities which have exhausted the power of helping themselves further, and to do this the state should set aside a sum for this particular purpose.

In a distribution of school money on the basis of need and effort certain principles seem to hold good:

In the first place, it should be clearly understood that the purpose is not to equalize taxes for education throughout the state, but only to equalize them down to a determined maximum rate. Just as the state has certain minimum educational requirements which it demands that all communities shall meet, so it ought to have certain maximum tax-rates for education beyond which it should not compel communities to go to meet these minimum demands. After these minimum requirements have been met, with or without extra state aid, it is an entirely different matter if a community desires to exceed this maximum tax-rate in providing additional advantages for its children.

In the second place, whatever aid is granted to equalize burdens should be granted only on formal application, accompanied by definite information as to conditions, local tax-rate levied and amount collected, salary paid the teacher, and the incidental expenses of the school, and only after assurances have been given that certain general requirements of the state have been or will be met. The power to grant the request ought to be centralized in some small but responsible educational body, and the granting or the refusal of such request ought to be within their discretion. The State Board of Education, in states where this body exists, would probably be the proper body to deal with this question, acting on the recommendation and advice of the Superintendent of Public Instruction. It ought also to be within the discretion of such a body to grant aid to certain other schools which are not technically within the class for which this special aid is intended, but which, due to some peculiar situation or circumstance, stand for the time in particular need of special additional aid. The New Hampshire provision is especially meritorious in this respect.

In the third place, such grants should bear some direct relation to the educational efforts made by a community, as well as to its valuation or its tax-rate. As what a tax of four mills will produce per school maintained is determined by the property valuation behind the school, the requirement of a definite local tax-rate, as is done in Connecticut, includes both total valuation and tax-rate for schools. The one item it does not include is the relation of the school tax to the total tax for all purposes, which is a desirable item to include. In the distribution of special aid,

a distribution based on some educational consideration, as for example the average daily attendance basis used in Connecticut. is theoretically much more desirable than a distribution based wholly on property valuation, as in Massachusetts. The one places a premium on daily educational effort; the other neglects educational effort entirely, except as it relates to tax proportions.

Average daily attendance is probably the best basis to use for this purpose. Length of term is here a negligible item, because the special aid would be granted for the purpose of bringing all schools up to the same length of term. The teacher basis need not be made a part of the grant, because it will care for itself in most cases, and, with discretionary power given to the granting body, aid could be refused to small and unnecessary schools. Care ought to be exercised in granting such special aid not to allow the grants to become a premium on the continuance of small and unnecessary schools, and hence a force opposed to the proper consolidation of schools. The number of very small schools to be aided would probably not be large, as it is the general policy to close such schools where possible. Wisconsin,[40] for example, employed 10,259 teachers in 1903-04 in the counties of the state, exclusive of the cities under city superintendents, but reports but 34 schools (0.3 of 1%) as enrolling five or less pupils, and but 234 schools (2.3%) as enrolling more than five and less than eleven pupils. Missouri[41] in 1903-04 reported 9,380 rural districts, but only 282 of these (3%) enrolled less than fifteen pupils.

In the fourth place, all such grants ought to be regarded as temporary assistance until such needy communities can become able to properly maintain their own schools, and in proportion as this comes to be the case the aid should be gradually decreased and finally withdrawn. If, on the other hand, the opposite condition happens, then the aid should be increased in proportion. In this respect the Connecticut plan is excellent, as the aid given automatically increases or decreases according to the necessities of the case, and whenever a town becomes able to provide $25.00 per pupil in average daily attendance at its schools with a four-mill tax the aid automatically stops.

[40] *11th Bien. Rept. Supt. Pub. Instr., Wis.,* 1903-04, statistical tables, pp. 99, 104.

[41] *An. Rept. Supt. Pub. Instr. Mo.,* 1904, pp. 5, 37.

In the fifth place, the graded district quota combined with the teachers' quota, as used in New York state, seems capable of even wider application. It is intended here primarily to aid the one-teacher country school, but it could be graded still further so as to include a second, a third, or a fourth teacher, and thus be made to encourage the building-up of small graded country and village schools. The district quota might be abandoned entirely and a graded teachers' quota substituted which would involve a high grant to a one-teacher school (say $150); a duplication of this grant for the second teacher, the idea being to encourage a large country school to add a second teacher instead of dividing the districts; a slightly smaller grant (say $140) for a third teacher; a still smaller grant (say $120) for a fourth teacher; and then a uniform grant (say $100) for every teacher added after the fourth. This could be made uniform throughout the state, and apply to the largest city as well as the smallest district; or, if desired, districts or cities of over a certain valuation could be deprived of the extra aid for the first four teachers and be given a uniform grant for every teacher employed. The details of such a plan are capable of many variations, but the principle involved is one of general applicability. In view of the general principle that the wealth behind each school maintained tends to increase with the size and total wealth of a community, such a graded series of teachers' quotas would seem to be in the direction of equalization, and it would also tend to place a premium on the building-up of graded schools.

In the sixth place, if a state has but a small fund at its disposal, as in the case of Massachusetts, it would give much better results to use it, or such part of it as may be necessary, in an effort to equalize the burdens and the advantages than to make a uniform per capita distribution without reference to educational needs or burdens borne, as is now so commonly done. This may be illustrated by three states:

The state fund of Iowa [42] (29 cents per capita on census in 1903), the state fund of Kansas [43] (82 cents per capita on census in 1904), and the state fund of Oregon [44] ($1.68 per capita on

[42] Annual interest on permanent fund, $214,125; census, 728,810. *Bien. Rept. Supt. Pub. Instr., Iowa*, 1903, p. xii.

[43] *14th Bien. Rept. Supt. Pub. Instr., Kansas*, 1904, p. 87.

[44] See footnote 39 in this Chapter.

census in 1904), three states in which no state school tax is levied to supplement the income from the state fund, could be very much better used than by distributing it equally to all on the census basis, as is at present done in each state. The larger communities, which in general need assistance least, now receive the most, while the small country schools, which need assistance most, now receive but a pittance. A school with a school census of 25 received but $7.25 in Iowa, but $20.50 in Kansas, and but $42.00 in Oregon; while a city would have received, for each grade of fifty children enrolled, about $25.00 in Iowa, about $72.00 in Kansas, and about $135.00 in Oregon.

In Iowa it would give very much better results if the entire state fund were set aside for the purpose of aiding those communities having the highest tax-rate, with a view to increasing the minimum term of school from six to seven months.

In Kansas a plan which would give much better results would be to first apportion $25.00 equally to all districts, towns, and cities for every teacher employed, and then use the remainder (about $110,000) in helping those communities whose local tax-rate for schools exceeded the average for the state (11.87 mills for 1903-04),[45] giving the help in some proportion to the rate of excess. The average school tax-rate of 16 Kansas counties, for example, was over 14 mills, and in 6 counties it was over 16 mills. The variations within the counties would, of course, be much greater than the variations in county averages. What some districts could do on three or four mills other districts could not do on less than nineteen or twenty mills. Such extremes ought to be in part equalized, if such extremes are necessary to meet the requirements of the state.

In Oregon a good plan would be to first make an apportionment of $50.00 to all districts, towns, and cities for every teacher employed [46] (3,914 in 1903, on which the 1904 apportionment of the state fund would be based), as was proposed above for Kansas, and then use the remainder ($45,534.48 of the 1904 apportionment) in helping those communities whose local tax-rate, to meet the demands set by the state, exceeded a certain determined sum. The "teacher-quota" apportionment would of

[45] *14th Bien. Rept. Supt. Pub. Instr.,* Kansas, 1904, pp. 62-64.

[46] *16th Bien. Rept. Supt. Publ. Instr.,* Oregon, 1905, p. 26.

course go equally to all counties and districts, but the remainder, or the reserve fund, would be distributed unequally, the poorer the county the larger the amount it would receive. By apportioning the state school fund in this manner instead of on school census, Oregon could probably provide, as was suggested on another page earlier in this chapter, for a uniform minimum school term of seven months throughout the state.

In states where the amount to be distributed is large, as in Indiana ($2.90 per capita on census in 1904), Utah ($4.00 per capita on census in 1902), Texas ($5.00 per capita on census in 1903), and Montana ($9.85 per capita on census in 1902), great advantages would accrue from a reservation of from 5% to 10% of the apportionment for use in equalizing burdens, increasing length of term, and as subsidies for additional advantages. The method has such wide application that the future ought to see its gradual and somewhat general adoption.

CHAPTER XIV

In the consideration of the various bases for the apportionment of funds we have so far made no specific mention of the various attempts which have been made in recent years to equalize the advantages of secondary education. We have omitted this phase of the problem of equalization until now, partly because so few states separate secondary schools from " common schools " either in statistical reports or in the apportionment of school funds, and partly because we preferred to deal with this phase of the problem of equalizing educational advantages in a separate chapter.

Secondary education is, comparatively, so recent an undertaking that many states have as yet made no very definite provision for this class of schools. Such provision as has been made by the different states extends from mere permission to communities to form such schools and tax themselves to pay for them, as in South Dakota, which is analogous to the first legislative permission to the people of a community to organize a taxing district and tax every one to maintain an elementary school; to a general state tax for secondary schools, as in California, levied on all property in the state, and apportioned to all secondary schools in the state which comply with certain requirements; or to the New Jersey plan, where secondary education is regarded as an integral part of the state system of public schools and is provided for accordingly in the regular apportionment. Between these extremes there are many intermediate plans for the granting of some degree of aid to such schools.

The expense of maintaining schools of secondary grade is so much greater than that for elementary schools,[1] due to better

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[1] The cost for secondary education is probably two to four times that for elementary education, though the ordinary school report gives little data from which a satisfactory determination of the relative amounts can be obtained. The somewhat extended investigations of Mr. Strayer

trained and more expensive teachers, smaller classes, the smaller number enrolled, and more expensive teaching equipment, and these schools have come to form such an important part of the educational system of a community that the future is certain to witness a strong demand that these schools be adopted by the state as a part of the general educational system. This demand will probably be somewhat accentuated as time goes by by the fact that the cost for elementary education is also increasing, and that the money now at hand and originally intended for the support of elementary schools [2] will in many cases prove insufficient for both classes of schools. Many communities are to-day trying to maintain a full twelve years' school system on funds about sufficient to properly maintain the elementary schools. The matter has already been brought to the front in a number of states and a number of plans for extending aid have already been devised.

The plan of giving no recognition whatever to high schools in making apportionments, now followed by a number of states using the census basis, is defensible only on the theory that such schools are a luxury, and hence should be supported wholly by such communities as choose to maintain them. If this theory is to prevail, then all money now apportioned ought to be limited strictly for the support of primary and grammar schools. This theory, though, while still held by many people, particularly of the older generation, is not one which is likely to gain ground with time. With the gradual change in conception as to the purpose of these high schools from that of a mere preparatory school for the universities to that of a " people's college," with the increasing necessity for broader education to meet the changed conditions of life, and with the introduction of the newer studies and methods of instruction, these schools have recently experienced a very marked gain in popular favor. This

(See *Teachers College Record* for May, 1905) seem to show that the real cost of good secondary schools is three to four times that for elementary schools.

[2] The fact that the somewhat general provision of secondary schools is comparatively recent, that the right to provide for such schools by general taxation was contested in the courts in a number of the states, and the somewhat common constitutional provision that the income from the school fund shall be used for " common schools " or to help " maintain a free public school in every school district in the state," may be taken as evidence as to the original purpose of the state school funds.

change in attitude toward these schools is certain to add force to the movement in favor of some form of general recognition for secondary as well as elementary education. The maintenance of elementary schools and a state university and the refusal to help to maintain high schools is hardly a logical position for a state to take.

Mere permission to cities, towns, and districts to form a high school and tax themselves to pay for it must be regarded as the first step in the process of the evolution of a system of general aid for secondary education. South Dakota [3] and Indiana [4] at present represent this stage in the evolutionary process. The next step is where the local-support principle is still retained, but the taxing area is extended to a larger field, as to the county as a whole. In states where this step has been taken, as in Oregon,[5] and in Iowa,[6] we find the county high school. California belonged to this class previous to 1903. The common features of these permissive county high school laws is the necessity for a petition signed by a certain percentage of the electors, asking for the submission of the question of the formation of a high school to a vote, an election, the appointment of trustees, an annual county high school tax for support, free tuition to residents of the county, and provisions for the dissolution of the school by a popular vote after a certain period of time, if so desired. The next step is taken when the state begins a series of grants or subsidies to aid certain classes of secondary schools, as is the case in Minnesota, North Dakota, and Pennsylvania. The next step consists in the levying of a state tax for secondary schools, which is distributed to those schools complying with the

[3] In South Dakota, a petition and an election are necessary to form a high school district, and after formation an annual local tax of not over twenty mills is permitted. "An Act to provide for the establishment of township high schools," Approved March 9, 1903. *S. B. No. 167.*

[4] In Indiana, the Township Trustee " may establish a high school of his own motion, if he has in the township twenty-five graduates of high school age. No petition is necessary for its establishment." School Law Decisions; Jones, Supt. *School Law of Ind.,* 1903, p. 127. The school is paid for out of the general tuition revenues of the township.

[5] *School Laws of Oregon,* Title II, Arts. 1-3; as printed in accordance with Senate Joint Res. No. 6, 1903.

[6] *Code of Iowa,* Secs. 2728-2733, as amended to 1902. *School Laws of Iowa,* 1902, pp. 118-122.

law, as is done in California. The final step is the complete absorption of these schools into the general state system of public education, as has been done in New York and New Jersey.

The plan of giving no state recognition whatever to high schools, as we pointed out in Chapter IX, is a natural accompaniment of the use of the census basis for the apportionment of school funds. As a practical condition it may be partly defensible on the ground that the cities receive more than their share under the census basis and have a much greater per capita wealth, and hence should be required to maintain their high schools unaided. This may possibly give somewhat equitable results with respect to the larger cities, but it will not give equitable results when applied to the small cities, towns, townships, and rural unions which maintain such schools. Under the Indiana or the Ohio plans of local support, a high school is a direct charge on the city, town, or township establishing and maintaining it, and under the six to twenty-one years of age census basis of apportionment, in use in both states, a town or township which does not establish a high school receives the same advantages in the apportionment of state funds as one which does establish and maintain such a school. The state premium is thus opposed to their establishment rather than favorable to it. The 558 townships in Indiana which maintained some form of a high school [7] in 1904, out of a total of 1,016 townships in the state, stood on exactly the same basis as far as the apportionment of funds was concerned as the 458 townships which did not maintain a high school. While it is certainly proper that a township should choose to pay the tuition of its pupils in some neighboring school rather than maintain a high school for five or six pupils, it is hardly just that it should receive the same apportionment from the state as the township making the greater effort. So long as the census basis of apportionment is retained there is no general means of aiding high schools except by special grants or by the levying of a special high school tax. This reveals another of the undesirable features of the census basis of apportionment.

The plan of making special state grants or subsidies to high schools marks the beginning of state aid to secondary education. It has been tried by a number of different states and has gener-

[7] *22nd Bien. Rept. Supt. Pub. Instr., Ind.,* 1904, p. 686. Only 20 of these township high schools were regular " commissioned high schools."

ally resulted, as any form of aid would have done, in producing
a rapid development of such schools.   The State of Washing-
ton,[8] for example, has granted a subsidy of $100 per year for
each grade taught above the grammar grades, provided that the
grade shall not consist of less than four pupils who have finished
the grammar grade work, and shall have an average daily attend-
ance of not less than three pupils.   Minnesota has provided for
a grant of $1,000 to each high school which meets certain uni-
form requirements.   North Dakota [9] has provided for a grant of
$400 to every high school maintaining a four years' course, $300
to every high school maintaining a three years' course, and $200
to every high school maintaining a two years' course.   Pennsyl-
vania [10] has exactly doubled the North Dakota grants.   Rhode
Island [11] has provided for a state grant to each town of $20 for
each pupil in average attendance for the first twenty-five pupils,
and $10 for each pupil in average attendance for the second
twenty-five pupils.   This last is intended to aid only the poorer
towns, as the maximum grant is $750.

To pay these grants a definite legislative appropriation is made:
$115,000 in Minnesota in 1901; $10,000 in North Dakota in 1899
and annually; and $25,000 in Pennsylvania in 1901.   In the case
of North Dakota the amount of the grant has been fixed by
statute,[12] and that, of course, permits of no increase with the
development of high schools and the growth of the state.   In
Minnesota and Pennsylvania the amount is fixed by appropria-
tions, and this involves bringing the matter before the legislature
at each session.   This method has many disadvantages.   If, as
is very likely to happen, the state appropriation is not large
enough to meet all requests, then the grants must be scaled down
proportionately for all schools.   This is what actually happens.
In Minnesota, for example, the grants actually paid for 1901
amounted to but $850 per school, and for 1902 to but $770 per

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[8] *Wash. Code of Pub. Instr.,* Title I, Ch. 4, Sec. 10, as amended by
Wash. Ses. Laws of 1903, Sec. 3, p. 161.

[9] *N. Dak. Code of 1899,* Art. 6, Sec. 870.

[10] Act of June 28, 1895, Sec. 4. *Pub. Laws of Pa.,* p. 414.

[11] "An Act to secure a more uniform high standard in the public
schools of this State," Approved May 4th, 1898.   *General Laws of R. I.,*
Ch. 544, Sec. 3.

[12] *The General School Laws of N. Dak.,* as amended to 1903.   *Poli.
Code,* Ch. 9, Art. 23, Sec. 870, div. 2.

school.[13]   In Pennsylvania, also, the grants paid during 1902-03 were: to four-year schools only $328, to three-year schools $246, and to two-year schools $164 each.[14]   This gives an uncertainty as to the value of these subsidies and makes this method less desirable than other plans that can be devised.

The subsidy method is further defective in that it places a premium only on the maintenance of a school with a certain number of years of instruction, but places no premium on the employment of a sufficient number of teachers to properly teach the courses of instruction which are or which ought to be offered. In reality the state places a premium on the opposite tendency. A community by working its teachers harder, and thus being able to offer another year of instruction, may be able to earn a larger state grant, but the effort to earn it may have been made at the expense of the quality of the instruction given.   If it is worth while for the state to aid secondary education at all, then the state ought to so apportion its aid as to place a premium on the giving of instruction under good educational conditions.

Under the grant or subsidy method, as usually employed, there is, still further, no incentive whatever to a high school to add more teachers and broaden the range of instruction offered.   A high school having two teachers and a single four years' course of instruction, is given no incentive to add a third teacher in order to improve the quality of the instruction given or to increase the number of subjects taught.   Such a school, with only a single " classical course," stands exactly on the same footing as another school which employs four teachers and offers a good scientific course of instruction as well.   The second school will cost more to maintain, and there is every probability that it will attract more students and do a greater educational service, but under the lump subsidy plan of aid its reward will be the same as that of the first school.   The position of the state as to the improvement of existing conditions is thus a purely negative one. No premium is placed on growth or better instruction by such uniform subsidies.   If the subsidy plan is to be used at all, the subsidies ought to be graded both as to years and character of the instruction offered, and the power to grant, scale down, or withhold them ought to be centralized in some responsible educational body.

[13] *12th Bien. Rept. Supt. Pub. Instr., Minn.*, 1901-02, p. 28.
[14] *An. Rept. Supt. Pub. Instr., Pa.*, 1903, p. 14.

On the other hand, the graded nature of the Washington, North Dakota, and Pennsylvania grants is meritorious, in that a premium is thus given for the formation of many partial course schools in communities which would be unable to provide a full four years' high school course. It is decidedly to the advantage of small communities to have some of the higher advantages of education, even though they may not be able to provide the full course of instruction or as large a range of instruction as is provided in the larger schools. Any good instruction beyond that of the grammar school subjects, even though taught to but a few pupils, is a stimulating influence which reacts most favorably on all lower instruction. These two-year schools usually form the nucleus of future four-year schools, and communities are usually able to provide this amount of instruction years before they would be able to provide a fully equipped four-year high school.

In 1885 the State of California had but twelve high schools, and in 1890 but twenty-four.[15] In 1891 the legislature passed a law [16] permitting of the formation of union-district and county high schools, and by 1900 the number of schools had increased to one hundred and twenty. The burden of maintaining these schools being in many cases excessive, and it not being allowable to use any portion of the state school fund for their support, the question of state aid for high schools began to be agitated. It was contended that these schools were of benefit to the state as a whole, and that communities ought not to be asked to do alone, and often at a heavy cost, what was, in part at least, for the common good of all.

In 1901 the California legislature provided for the submission of a constitutional amendment [17] to the voters of the state, the purpose of which was definitely to incorporate high schools and technical schools into the state school system and to permit of the levying of a general state high school tax. This amendment was adopted by the voters at the election of 1902 by a large majority. The largest city in the state, which from a purely financial and selfish point of view had least to gain and most to lose, gave a good majority in favor of its adoption.

[15] *21st Bien. Rept. Supt. Pub. Instr., Cal.,* 1903-04, p. 124.

[16] *Polit. Code of Cal.,* Sec. 1670. This law has been amended at almost every session of the legislature since its original passage.

[17] *Constitution of Cal.,* Art. IX, Sec. 6, as amended Nov. 4, 1902.

Accordingly, the legislature of 1903 provided [18] for a state one and one-half mill annual high school tax, the income to be distributed to all legally organized high schools in the state, provided such schools maintained a four years' course leading to admission to one of the courses in the state university,[19] employed at least two teachers, was maintained for nine months each year, had an average daily attendance of at least twenty pupils, and had " a reasonably good equipment of building, laboratory, and library." The result has been a very rapid development of these schools, those already established increasing their teachers and instruction, and many new ones being established, the number reaching one hundred and sixty-seven in 1904.

In 1905 this law was amended to provide that in the future no state-aided high school shall charge any pupil residing outside of the high school district a higher tuition fee than " the difference between the cost per pupil for maintenance of such school and the amount per pupil received during that school year by such high school from the state." [20] Also, after July 1, 1905, the amount of state high school tax to be levied is to be determined by calculating " $15 per pupil in average daily attendance in all the duly established high schools of the state for the last preceding school year." [21] The fund is distributed, one-third equally to all schools, " irrespective of number of pupils enrolled or the average daily attendance therein," and the remaining two-thirds " pro-rata upon the basis of average daily attendance * * for the last preceding school year." [22] The value of this apportionment [23] for 1904 was $544.93 to every school on the one-third basis, and about $11.18 per pupil in average daily attendance on the attendance basis.[24]

[18] "An Act creating a fund for the benefit and support of high schools and providing for its distribution," Approved March 2, 1903.

[19] As required by the law relating to the establishment of high schools *Polit. Code of Cal.,* Sec. 1670, div. 12.

[20] *Senate Bill No. 266,* Session of 1905, Sec. 9.

[21] *Ibid.,* Sec. 1.

[22] *Ibid.,* Sec. 5.

[23] *21st Bien. Rept. Supt. Pub. Instr., Cal.,* 1903-04, p. 215.

[24] This is not essentially different from the apportionment values for elementary schools, which are $550 for each teacher employed, (see footnote 22, Ch. XII), and a state average value of $11.52. (This is two-thirds

The California plan for granting state aid to high schools is especially meritorious in a number of particulars. In the first place, the money originally set apart for the support of elementary schools was not taken and spread over a greater field,[25] but an additional fund was created. The granting of state aid to high schools thus benefited the elementary schools financially as well as educationally. In the second place this additional fund is not a legislative appropriation which depends upon the good will of each succeeding legislature, and which may or may not be sufficient to pay the grants promised by law, but it is a definite and automatically increasing tax, the amount levied to be determined by the actual work done by the schools. In the third place, limiting of tuition fees to outside children to the actual cost of instruction, and then deducting the value of the state apportionment, is also wise. High schools in California are maintained by cities, towns, districts, unions of districts, and by counties as a whole. All of the territory of some counties is included in high school districts, thus providing free tuition to all children in such counties. In other counties only a portion of the county is included in a high school district or districts, and hence some children must pay tuition charges. One of the next steps in the evolution of California's system of public education will probably be to annex all non-high school territory to some high school district for taxing purposes, until such time as the residents see fit to divide off and create a high school of their own, and then declare high school education free and open to all, as elementary education has been.[26] When this has been done, California will have reached the logical conclusion of the process of state aid for education, and will have provided a continuous system of public

of the value on average daily attendance ($17.87) of the state census apportionment of $9.47. See Table No. 34, Ch. IX.) on average daily attendance.

[25] On the contrary, the amended section of the Constitution provided that "the entire revenue derived from the State School Fund and from the general State school tax shall be applied exclusively to the support of primary and grammar schools, but the Legislature may authorize and cause to be levied a special State school tax for the support of high schools and technical schools, or either of such schools." *Constitution of Cal.*, Art. IX, Sec. 6.

[26] See footnote 2, Chapter IX.

education extending from the kindergarten to and through the state university, and which is absolutely free and equally open to all the children of the state.

In the apportionment of the high school fund the California plan is meritorious in that an equal lump sum is first given to each high school, thus recognizing the needs of the smaller schools, and then the balance is apportioned on the basis of the number of pupils actually in average daily attendance at the schools. Length of term (aggregate days' attendance) is here a negligible factor, because all high schools are required to maintain at least a nine months' term as one of the prerequisites to sharing in the state apportionment.

The California plan, on the other hand, is defective in that it places no premium whatever on the employment of a sufficient number of teachers, or on the addition of new lines of instruction. If a second fraction of the sum were apportioned to the schools on the basis of the number of regular teachers employed, and then the remainder apportioned as now on average daily attendance, it would be an improvement. This would place an emphasis on the teacher employed, and hence on the different lines of instruction offered, and would decrease the pressure that will from time to time be exerted on a small school to retain some unworthy pupils because of the size of the attendance grant. The fraction could be calculated so that the result would not be very materially different from what it is now, though of course the teacher basis would favor the small school more than the large one.

The complete incorporation of secondary education into the state system of education is well represented by New Jersey, this state having reached the logical conclusion of the process of state aid to secondary schools. The State of New York is another example of complete incorporation. The School Law of New Jersey repeatedly uses the term " public schools," but only indirectly refers to high schools as a " public school of higher grade." Yet the provision for the support of high schools is not only as complete as for any other class of schools, but is also one of the best in use. The plan, which is a combination of the teacher-employed and the attendance bases, is at once simple and satisfactory. For every teacher employed in a high school, in common with any other type of school, the sum of $200 is first set aside in making the county apportionment, and for every

teacher employed part time the sum of $80 is set aside; the remainder, after making certain special appropriations, is apportioned on the basis of the total days' attendance in the school. The apportionment to a high school is thus on the same basis as to a kindergarten, a primary school, or a grammar school. All belong to the state public school system, all share alike in the apportionment, and all are paid out of a common fund.

The way this works out may be shown by an example. For 1902-03, 42% of the total state fund of $2,819,541.48 was apportioned on the total days' attendance basis, and the total days' attendance in all schools was 41,540,740.[27] This makes the attendance apportionment worth a little less than three cents per pupil per day. Let us call it three cents. To illustrate we will assume three high schools, the first, A, a village school, offering but two years of instruction; the second, B, a town high school, offering four years of instruction in a few subjects; and the third, C, a city high school offering four years of instruction in a number of courses. The results would then be:

School.	Teachers.	Enrollment.	Av. Dy. Att.	Aggr. Days' Att.
A	1½	24	18	3,200
B	3	59	45	9,000
C	16½	447	325	65,000

School.	Value of apportionment on		Total amount received.
	Teachers.	Attendance.	
A	$ 280	$ 96	$ 376
B	600	270	870
C	3,280	1,950	5,230

The value of such a plan, if sufficient revenue can be provided, is at once evident. High schools cease to be a separate class of schools and become at once an integral part of a general state system of public instruction. The state then rewards a community's efforts according to the amount of higher instruction provided, as measured by the number of teachers employed, and according to the actual amount of work done by the higher grade of school, as measured by the attendance upon the instruction offered. If a rural union-school will provide instruction in only the ninth grade work, and thus give the boys and girls in the rural districts a taste of something beyond the " common school branches," the state will reward such an effort by a grant

[27] *An. Rept. State Bd. of Educ. of N. J.*, 1903, p. xxiii.

for both the teacher employed and the extra attendance resulting. If a village, such as school A in the above illustration, will employ one additional teacher and another teacher for part time, so as to provide the first two years of high school work, the state will at once reward such an effort. To the large city school, the state offers a standing premium on additional effort. If the school will add manual training or commercial instruction, a grant will be made in proportion to the number of teachers employed and the resulting increase in attendance because of the new courses offered. The simplicity, the justice, and the automatic adjustment of the plan to needs and efforts are strong points in its favor.

One thing ought always to accompany any such complete incorporation of the high schools into the public school system, and that is a proportionate increase in the state funds provided for apportionment. Otherwise the plan only serves to deplete the fund for the maintenance of elementary education. The adoption of a plan in Wisconsin ought to involve at least the restoration of the one-mill state school tax,[28] though the special legislative appropriation for high schools could then be dispensed with; the adoption of the plan in Indiana ought to involve the restoration of the state school tax to at least sixteen cents.[29] There is no wisdom in incorporating high schools into the state school system if the elementary schools are to be made to pay the bills.

The ease with which an incorporation of high schools into the state system can be accomplished by the use of the teacher-employed and the attendance bases of apportionment in combination, if accompanied by a corresponding increase in funds, will be evident from the illustrations given. This is impossible under the census basis of apportionment, because all of the high school pupils have been counted once for the general census apportionment. Under an enrollment, average membership, or attendance basis of apportionment some slight recognition would be given to any efforts made by a community to provide higher advantages

[28] See footnote 38, Chapter VI.

[29] This tax was 16 cents from 1865 to 1893, when the legislature reduced it to 13 cents, and the succeeding legislature of 1895 reduced it to 11 cents, at which figure it has since remained. Rawles, W. A. *Centralizing Tendencies in the Administration of Indiana*, p. 73.

for its children, as each pupil attending a high school would be paid for at the regular state per capita apportionment rate. But while the use of any one of these bases might prove just to the large high schools, any one would manifestly be as unjust to the small high school as to the small elementary school. The larger schools would receive a liberal allowance, though needing assistance least; the smaller ones would receive but a pittance, though needing assistance most. The essential unit in higher as in elementary instruction is the teacher who must be employed to teach the pupils, and not the number of pupils alone. Under a teacher-employed basis, a high school would share equally with other schools, and under a combination of teacher-employed and attendance bases, as used in New Jersey, the high school is placed on the same basis as any other school, and thus becomes an integral part of the state's system of instruction. If this is not considered sufficient, due to the greater cost of high school education, a small lump sum could be granted additional for every complete and accredited school.

Permissive local taxation for secondary schools must then be regarded as the mere beginning of the process of aid toward the maintenance of higher schools. Communities are allowed to form such schools and to tax themselves to support them. Permissive county taxation is a big extension of the conception as to the place and value of these higher schools. The granting of state subsidies to high schools, in the form of direct grants, must be looked upon merely as the beginning of general state aid for secondary education, and as an entering wedge to secure general acceptance of the principle involved. A state should not remain longer at this stage than is necessary to prepare the way for the adoption of some better method. The next step is the adoption of some such plan as the one now used by California or by New Jersey. The California plan, definitely setting aside all present money for the exclusive use of primary and grammar schools, may enable a state to make better provision for both its elementary and secondary schools than could otherwise be done, but the New Jersey plan, if additional funds are provided so as not to rob the elementary schools, is certainly the simpler and the more desirable, as it at once abolishes all artificial divisions in education, forms one unified public school system, and makes provision for aid to any form of future high school instruction without the necessity of special legislation.

This abolition of artificial distinctions must not be considered as an unimportant gain. The school system should proceed from the kindergarten to and through the high school with as few artificial divisions as possible, the whole being regarded as a continuous educational process. Grades and classes may be administrative necessities, but otherwise they have no educational significance. If in the future a six years' high school should prove to be a desirable addition to our school work, the present somewhat rigid classification in a number of states would have to be changed, and this would require years of discussion and effort. Present laws would in many states only stand in the way of its proper development. Under the teacher-employed and attendance bases no amendment of laws would be necessary. The New Jersey plan is thus preferable to the California plan. The former adjusts itself automatically to any change which seems desirable; the latter is much more rigid, and a technical State Superintendent of Public Instruction who desired to do so could interpose very serious objections to any departure from the regulation four years' type of high school, and could retard development for years. In a country where the educational system is changing as rapidly as in our own it is very desirable that our laws should be made somewhat flexible. We have little to fear from encouraging experiments; almost all the progress we have made in fifty years has been made by the cities, and made by them largely because their larger means and freedom from official restrictions gave them a chance to experiment.

Another form of the problem of equalizing the advantages of secondary education which has been considered by a number of states within the past ten years is that of making some kind of general provision for securing these advantages to children who do not happen to live in districts or towns where a high school is maintained. This has taken the form of the state relieving the parent of the burden of the tuition charge at a neighboring school, the state either assuming the charge in whole or in part, or directing the school district in which the pupil lives to assume it. The effect of this is at once to make provision for free secondary education for every child in the state, in theory at least, and secondary education is accordingly assumed as within the province of the educational work of the state.

The method employed in doing this varies in different states.

In Indiana,[30] for example, the pupil must make yearly application to the school trustee of his district for a transfer, which, if granted, involves the payment of his tuition as well; in Ohio,[31] the township in which the pupil lives is directed to assume the charge; in Wisconsin,[32] high schools must admit non-resident pupils if their facilities permit of their so doing, present a bill for tuition to the town from which the pupils come, and said town shall enter the item for tuition on the tax roll of the town, and when collected pay it over to the high school which has furnished the tuition; in Massachusetts,[33] the town must pay the tuition, unless the total valuation of the town is less than $750,000, in which case the state pays it, or unless the valuation is over $750,-000 and the town has less than five hundred families or householders resident in the town, in which case the state pays half of the tuition; Rhode Island [34] provides than any town not maintaining a high school, but arranging with an academy or high school in another town for free high school tuition for all its pupils, shall receive aid from the state " on the same basis and to the same extent as if it maintained a high school by itself;" Maine [35] will reimburse towns to the extent of half the tuition paid provided the same does not exceed $250; Connecticut will reimburse the towns to the extent of two-thirds of the tuition paid,[36] and also pay one-half of the cost of transportation,[37] to enable the pupils to attend the high school, though not over $30 per pupil per year in the first case or over $20 in the second

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[30] *Ind. Rev. Stat. 1901*, Sec. 5959 b.

[31] *Rev. Stat. of Ohio*, as amended to 1904, Pt. 2, Title III, Ch. 9, Sec. 4029-30.

[32] *Wis. Laws of 1903*, Ch. 329, amending Ch. 188 of the *Laws of 1901*, Secs. 2-6.

[33] *Revised Laws of Mass.*, Ch. 42, Sec. 3, as amended by Ch. 433, *Acts of 1902*. If the town has over five hundred families or householders, it must maintain its own high school. Aid for high schools was first begun in 1895.

[34] "An Act to secure a more uniform standard in the public schools of this State," passed May 4, 1898; Ch. 544, Sec. 3.

[35] *Me. Rev. Stat., 1903*, Ch. 15, Sec. 64.

[36] *Conn. Gen. Stat.*, Sec. 2240. First enacted in 1897, amended in 1899 and 1901.

[37] *Conn. Laws of 1903*, Ch. 182, Sec. 2.

case; while New Hampshire [38] has a graded scheme for aid to those towns which have paid high school tuition, whose school tax is over 3.5 mills, and whose total town tax is over 16.5 mills in any year, beginning with a grant of one-tenth of the tuition paid if the total tax is from 16.5 to 17.5 mills, and increasing one-tenth for each increase of one mill in total tax. A few other states have made some provisions of a nature similar to some one of the above.

Most of these tuition laws have been enacted quite recently, and represent a very recent movement looking to the placing of the advantages of free secondary education within the reach of every child in the state. This movement is to be encouraged. It is not necessary or desirable that every district or township should maintain its own free secondary school, but it is very desirable that the advantages of free secondary education should be made possible for every child in every district or town of the state. The pupil who goes on to a secondary school is much more likely to be of benefit to the state in the future than the one who has no such ambition. If a state grant in any form is made to high schools, it would seem proper that the tuition charges should be limited to the actual cost of such instruction per pupil after deducting the amount of state aid received, and also that some per capita or some other fractional grant be made to districts which have paid tuition for their pupils at some neighboring high school. The New Hampshire plan of allowing the towns to count all such pupils paid for as though they had been enrolled in their own schools,[39] for the state apportionment, is worthy of mention in this connection.

[38] "*An Act relating to high schools*," N. Hamp., Ses. Laws of 1901, Ch. 96, Sec. 3.
[39] *Ibid.*, Sec. 5.

THE census basis of apportionment may be said to compre-
hend but one class of schools—the so-called " common schools."
As soon as we leave the ordinary type of required school there is
no means of offering any incentive toward, or reward for, the
development of any additional or desirable type of education.
We pointed this out in the last chapter with reference to secon-
dary education, and in this chapter we wish to point out the same
condition with reference to a number of those more recent and
valuable supplemental efforts which a few communities have
made to provide a better and a richer education for their chil-
dren.   These include such additional and costly efforts as the
provision of kindergartens, manual training, physical training,
evening schools, small schools for special classes, such as oral day
schools for the deaf, parental schools, and vacation schools.
Every pupil who attends any one of these schools has already
been counted for the census apportionment, so nothing additional
can be given under this basis of apportionment to a community
which provides any one or even all of these advantages.

The fact that these are at present maintained almost entirely
in the cities, and that the cities already get more than their share
under the census basis of apportionment, has been made a reason
for the common requirement that all such schools, in common
with the high schools, shall be maintained entirely by the cities
which can afford them.   This may be perfectly defensible under
the census basis of apportionment, as we have previously pointed
out, but it is not good that it should be so, and under a rational
system of apportionment it would not be just.   Kindergartens and
manual training at least would be very useful additions to the
educational systems of the towns and minor cities, and some form
of evening or continuation school could probably be added with
great advantage.   Such advantages, however, are usually not
found outside of the larger cities, partly due to the fact that the
state usually places all its emphasis on the ordinary type of
" common school," and these advantages are accordingly looked
upon as only the " extras " or the " fads and frills " of educa-
tion, and partly due to the fact that such advantages must usually

be provided for entirely at the cost of the community, and hence the smaller places cannot afford them. The progress that is made in enriching education is thus almost entirely due to the influence of the example set by the larger cities, the state usually occupying a purely negative position in the matter. The state, though, ought to occupy a very positive position by making it an object to communities to add new and desirable advantages to their schools. A few states have taken an advanced position in this matter, but most of the states have taken no positive action, while their apportionment laws place a premium against any efforts in this direction.

A few illustrations of positive state action may be given. In New Jersey, kindergartens [1] form an integral part of the state school system, the teacher counting for the teacher-employed or "teacher-quota" apportionment, and the children attending counting in the aggregate days' attendance of the schools. In New York the same condition exists. In New Jersey, also, the state duplicates any special tax or subscription of over $250 raised for the establishment or maintenance of instruction in manual training [2] in any school district, up to a sum of $5,000 per year to such district; Wisconsin grants $250 per year to a high school which provides approved instruction in manual training,[3] but at present limits the number of schools to be so aided to twenty; and Kansas has recently provided for a maximum state grant of $250 per year to any city or district establishing manual training [4] as a part of the regular instruction. In New York or New Jersey a teacher of manual training (unless otherwise provided for in New Jersey in the grant for manual training instruction), cooking, or physical training, would be counted for the teacher-employed apportionment the same as any other teacher. In California, cities and districts are permitted to establish oral day-school for the instruction of deaf children,[5] and a regular teacher basis of apportionment of $550 is made to each

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[1] *School Laws of New Jersey*, as enacted by the 2nd Sp. Ses. 127th Leg., and Approved Oct. 19, 1903; Ch. I, Art. XII, Secs. 145-147.

[2] *Ibid.*, Ch. I, Art. XXII, Secs. 205-207.

[3] *Wis. Annotated Stat. of 1898*, Sec. 496c; as amended by Ch. 273, *Laws of 1899*.

[4] *Kas. Laws of 1903*, Ch. 20, Sec. 5; *School Laws of 1903*, Sec. 204.

[5] *Polit. Code of Cal.*, Sec. 1618, and Sec. 1858, div. 1, as amended by Assembly Bill No. 277, Leg. Ses. of 1905.

city or district having done so for every nine deaf children on
the census lists; in Connecticut, towns and districts having main-
tained an evening school [6] for seventy-five sessions receive a state
grant of $2.25 for each pupil in average evening attendance; in
New Jersey, evening schools [7] are regarded as half-day schools,
the teacher being apportioned for as a partial teacher ($80) and
two evenings' attendance being counted for the state attendance
apportionment as equivalent to one day of attendance at a day
school; in New Jersey, parental schools [8] are paid for on the
same basis as regular day schools; in Massachusetts, any city or
town may establish and maintain vacation schools,[9] paying for
these out of the common school funds, though of course the
Massachusetts cities derive all their funds from local taxation.
A few other examples could be given, but the number of states
which have taken any positive action to encourage the introduc-
tion of these new advantages is small.   Nearly all the provisions
which have been made, however, have been made within the last
ten years, so that there is every probability that the future will
see a great extension of state aid and encouragement for these
desirable educational advantages.

As we have said above, the recognition of any of these newer
advantages—kindergartens, manual training, physical training,
evening schools, small schools for special classes, parental schools,
and vacation schools—is impossible under the census basis of
apportionment, without a special grant or some special amend-
ment to the general apportionment law.   These amendments are
always difficult to obtain and are an undesirable method of
accomplishing results.   By far the best method is to so arrange
the apportionment law that any new effort is automatically in-
cluded, as soon as it shall have been recognized by law or by
official decision as forming a part of the system of public in-
struction.

Under an enrollment or an attendance basis of apportionment,
pupils in kindergartens, evening schools, vacation schools, and
small schools for special classes would be included for the state

[6] *Conn. Gen. Stat.,* Sec. 2148.   Grant first made in 1885.

[7] *School Laws of N. J.,* * * Approved Oct. 19, 1903; Ch. I, Art. XIII,
Secs. 148-149.

[8] *Ibid.,* Ch. I, Art. XV, Secs. 161-164.

[9] *Revised Laws of Mass. relating to Public Instr.,* Ch. 42, Sec. 15,
Laws of 1899, 246.

apportionment, but the pupils in manual training and physical training would already have been counted in the ordinary school, and the grant received for small schools for the instruction of special classes would be but a mere pittance toward the expense of maintaining them. The teacher-employed basis of apportionment gives proper recognition to all of these efforts, and a combination of the teacher-employed basis and the attendance basis at once recognizes the unit of expense in all such schools, the cost for the teacher, and also the greater fluctuations in attendance to which these schools are subject.

This basis of apportionment at once makes it possible to recognize any one or all of these newer efforts. All that is necessary to properly provide for these is the recognition of any one of them as forming a part of the state system of public instruction, and a statement of the conditions under which it may share. Kindergartens, small schools for special classes, such as oral schools for the deaf, and parental schools, can be regarded, in common with high schools, as regular day schools and as integral parts of the public school system. An apportionment is accordingly made for the teachers employed in each, and a supplemental apportionment is made for the attendance at each. The manual training teacher, the cooking and sewing teachers, and the teacher of physical training are all counted for the teacher-employed apportionment, but for attendance only so far as the presence of such work increases the regular attendance of the schools. A manual training, drawing, music, or other special teacher employed by two or three different school boards may be paid for and the grant be divided in the proper proportions among the different districts. Evening school teachers may be regarded as half-time teachers and allowed for at a half of the regular teacher-employed grant, and evening school attendance may be similarly regarded as half-day attendance and two evenings be taken as the equivalent of one day's attendance at a regular day school. Teachers in vacation schools, if these should ever be included in the state school system, could, in a similar manner, be regarded as one-fourth or one-fifth of regular teachers, while the attendance at such schools could be paid for on the basis of aggregate days' attendance. The ordinary type of high school, manual training schools, and industrial schools, if the future should witness the establishment of the third as a part of our public school

system, would share alike with other schools. By means of the apportionment on teachers employed the plan at once recognizes any effort which a community of any size makes to improve its schools by the employment of additional teachers, and by means of the attendance basis the plan gives recognition to any increase in the attendance at the schools as a result of these efforts.

The simplicity and justice of such a plan and the elimination of all necessity of amending the apportionment law every time it is desired to recognize any new and desirable effort are strong points in its favor, and make it the most desirable means of reaching the end sought. But, while this may be the most desirable way of securing recognition for these various advantages, it may not be the easiest way, because of the difficulty of reconstructing the general apportionment law. If not, then certain grants should be given, or certain modifications of the apportionment law should be made, so as to recognize the more important of these efforts. When the time comes for the reconstruction of the apportionment law on better lines, then these special grants can be done away with and the whole incorporated in an inclusive apportionment law.

The result of such recognition would at first be to aid only the large cities, because they are almost alone in the possession of these advantages, but in time the smaller cities and towns would be stimulated to provide some of these advantages for their children, and then they too would share in the extra apportionment grants. Many of these smaller cities and towns would at once provide some of these extra advantages if it were not for the difficulty of paying for them. State encouragement in this direction would be very useful.

Another recent effort to equalize the advantages of education which is worthy of particular mention is the effort to provide professional supervision for all schools. Skilled supervision is generally regarded by cities as a good investment, and a few states have recently made an effort to provide for the extension of the principle so as to ultimately secure the same advantages for all of the schools of the state. In Massachusetts the idea has been carried to its logical conclusion, and professional supervision has been provided, as it should be, for every good school in the state.

Feeling that what was good for the larger and wealthier towns

was good for all, Massachusetts began, in 1888, to encourage small towns to employ a superintendent of schools. This was done by giving to such towns a state grant toward paying the salary of such a person.[10] To guard against the employment of inferior persons for the positions, the minimum salary of the superintendent to be employed was fixed at $1,250, toward which the state gave $500, and also $500 additional toward increasing the salaries of the teachers employed under such a superintendent. The minimum salary to be paid was soon increased to $1,500, the state contributing $750 of the amount. The effect of this grant was such that by 1900 the state was able to require[11] that, beginning with 1902, every town in the state should either employ a superintendent or join with one or more other towns in the employment of one. Towns having a valuation of less than $2,-500,000 were given state aid, provided the amount raised by the towns to pay the superintendent of schools is " in addition to an amount equal to the average of the total amount paid, or to the amount paid for each child, by the several towns for schools during the three years then last preceding." Upon a certificate to this effect, the state grants $750 for the salary of the superintendent, and $500 additional for the salaries of the teachers employed.[12] This wise system of grants has given Massachusetts the best and most complete system of supervision of any state in the Union, and the cost has been but little. In 1901-02 the total state grants under this law, both for the salaries of superintendents and for increases to teachers, amounted to only $95,000, and it is estimated that $100,000 will be the maximum sum required at any time.[13]

The other New England states have recently made the beginning of a similar plan. Rhode Island[14] and Maine[15] have agreed to pay half of the salary of the superintendent, though not over $750, to any town or union of towns; Connecticut[16] has similarly agreed to pay half the salary for any town, up to a

[10] *Mass. Acts of 1888*, Ch. 431.

[11] *Mass. Laws of 1900*, Ch. 248.

[12] *Mass. Laws of 1898*, Ch. 466, Sec. 3.

[13] *66th An. Rept. Mass. Bd. Educ.*, 1901-02, p. 156.

[14] *Rhode Island Laws of 1903*, Ch. 1101, Sec. 4.

[15] *Maine Rev. Stat. 1903*, Ch. 15, Sec. 42.

[16] *Conn. Laws of 1903*, Ch. 195, Sec. 3.

maximum of $800; New Hampshire [17] has agreed to pay half the salary for any supervisory union, and has made an annual appropriation of $6,250 for the purpose; and Vermont [18] has agreed to pay twenty per cent of the salary paid. None of these states, with the exception of Maine, have placed in their laws the wise restrictions as to minimum salary which Massachusetts has had from the first; in Maine the minimum salary is $1,000. The Massachusetts extra grant for teachers' salaries is also a meritorious feature of their plan.

New York and New Jersey have also provided for direct subsidies to communities employing a professional superintendent. In New York,[19] a special "supervision quota" of $800 is set aside for every city, village or union school district having a population of five thousand inhabitants and employing a superintendent of schools, and New Jersey [20] grants $600 to every city, or district, or union employing a superintendent of schools or a supervisory principal who devotes all his time to supervision.

This plan might also be used in the Central States or in the West, if such a plan should prove necessary as a means of securing good rural supervision. A far better plan, though, especially in states where the counties are relatively small, as for example in Indiana or Illinois, would be to eliminate the county superintendency entirely from politics; provide that the county superintendent should be appointed because of educational qualifications; free the appointing power from the necessity of selecting a resident of the county for the office, just as the cities have been freed from the necessity of selecting a resident of the city for city superintendent; provide that each superintendent should have a salary of not less than $1,500; free him from office drudgery by providing him with from $600 to $800 for a deputy to do the clerical work of the office; and thus make of him a real educational superintendent of rural schools, holding an analogous position to that of the city superintendent for the city schools. In

[17] *N. Hamp. Ses. Laws of 1899*, Ch. 77, Sec. 3, as amended by *Ses. Laws of 1901*, Ch. 18.

[18] *Vermont Stat.*, Title II, Ch. 33, Sec. 625. *Laws of 1892*, No. 21, Sec. 31.

[19] *Consol. School Law of N. Y.*, as amended to June, 1903; Title II, Art. 1, Sec. 5.

[20] *School Law of N. J.*, * * Approved Oct. 19, 1903, Ch. I, Art. XVII, Sec. 182, div. I.

Indiana, for example, a county superintendent is allowed $4.00 for every day he works.[21] If he is able to put in three hundred days a year, this means a salary of $1,200. There are ninety-two counties, which would equal $110,000 for the present form of county supervision. The addition of $90,000 more, or slightly less than Massachusetts spends, and under the conditions outlined above, would in a short time give the state of Indiana as good a system of supervision as that of Massachusetts. The additional cost would be about eight-tenths of one per cent of the cost of the school system, and it is doubtful if an additional expense of eight-tenths of one per cent could be made in any other direction which would yield such large returns. What is true of Indiana is equally true of other states in the North Central group.

The recent movement for the concentration of rural schools, the transportation of pupils, and the building up of rural graded schools is another of the recent efforts to equalize educational advantages which merits the particular attention of the state. The purpose is to encourage the abandonment of small and inefficient country schools, suffering from isolation and lack of numbers, and the formation, instead, of centralized and graded two, three, or four-room schools, to which the pupils, living at a distance, are transported each morning and from which they are returned to their homes each evening. The two important obstacles to the plan are the conservatism of communities and the lack of sufficient funds to pay for transportation and to provide the type of concentrated school desired. In every state there are a number of natural concentrating centers, where a certain number of schools could be concentrated with a great gain in educational efficiency and no increase in the cost of the instruction. There are also regions where, due to sparsity of population, lack of roads, and other causes, no concentration of schools is possible. Between these two conditions there are other groups where concentration is desirable and would be possible except for lack of sufficient funds to provide transportation and meet the expenses of the concentrated school. For these a rearrangement of the state apportionment plan on better lines would do much.

These concentrated schools are so valuable from an educational point of view, however, due to the larger number of children present, more regular attendance, longer term, the division of the

[21] *Ind. Rev. Stat. 1901*, Sec. 5910; *Laws of 1873*, p. 75.

work among two or more teachers, the larger classes and the resulting greater enthusiasm of both pupils and teachers, the chance for the development of some higher instruction, etc., that it is the part of wisdom for the state to encourage their formation. This has been done by a few states by means of special subsidies. For example, Rhode Island [22] has provided that if " any town shall consolidate three or more ungraded schools and instead thereof shall establish and maintain a graded school of two or more departments, with an average number belonging of not less than twenty pupils for each department," the state will pay such a town $100 a year for every department so maintained, and if another ungraded school votes to discontinue its school and unite with the graded school so maintained, an additional $100 will be paid each year.   New Jersey [23] has provided that whenever a district concentrates its school and provides proper transportation, $200 shall be granted each year in making the county apportionment " for every teacher whose services shall have been dispensed with by reason of substituting transportation for the services of such teacher, so long as proper transportation shall be provided." Wisconsin [24] grants a subsidy of $100 to a graded school having two departments, which meets certain requirements, and, similarly, a subsidy of $300 to a graded school having three or more departments.   Minnesota [25] grants a subsidy of $400 to a graded school of four departments providing a nine months' term of school, and $200 to a graded school of two departments providing an eight months' term.   The subsidy plan of aid for graded schools has been adopted by a number of states.   It is primarily intended to encourage a longer term, better educational conditions, the building up of village schools, and the gradual evolution of high schools, but the plan can be made to serve as a valuable aid in securing the concentration of small and inefficient schools as well.

Other forms of aid or subsidies have been established by dif-

[22] "An Act to secure a more uniform high standard in the schools of this State," passed May 4, 1898, Secs. 1, 2.

[23] *School Law of N. J.* * * Approved Oct. 19, 1903; Ch. I, Art. XVII, Sec. 182, div. I.

[24] *Wis. Laws of 1901*, Ch. 439, Sec. 9, Subdiv. 2, as amended by *Laws of 1903*, Ch. 285, Sec. 10.

[25] *Minn. Laws of 1899*, Ch. 352, Secs. 14, 19; as amended by *Laws of 1901*, Ch. 189, Secs. 2, 3.

ferent states with a view to further equalizing certain advantages of education. The Maryland [26] provision appropriating $150,000 annually from the state treasury for the purchase of free text-books for the children of the state, to be apportioned to the counties and to the city of Baltimore on the basis of enrollment in the schools the previous year: the recent amendment to the constitution of Louisiana [27] permitting the legislature to provide for the issuance of $1,000,000 of twenty-five-year three-per-cent bonds, the proceeds to be used by necessitous communities to provide a proper school building in which a state school may be held: the Delaware [28] law providing for an annual appropriation of $6,000 to be used in assisting colored school districts to provide a school-house in which to conduct a school: and the Indiana [29] minimum salary law, which in effect provides that no teacher in the state shall be paid less than $40 a month, may all be cited as examples. The last is an especially meritorious law, as its tendency will be to provide the child with a better teacher.

Most of the recent educational efforts are so valuable that some provision ought to be made for them which will lead to their more general adoption by the smaller communities of the state. Under the usual census apportionment basis this is not possible. If the state apportionment is not too small, and if the state apportionment plan cannot be remodeled on more rational lines, then a series of patches ought to be put on the old plan so as to grant some recognition to a few of the more important of these new efforts. By far the best method, though, is to so arrange the general apportionment plan as to automatically include as many as possible of these new efforts, and then increase the state funds if necessary. The best apportionment plan for this purpose is a combination of the teacher-actually-employed basis with the aggregate days' attendance basis, with such special additional grants for supervision and concentration of schools as may seem desirable. In fact, this combination basis is the most generally useful for all purposes and the most generally just of any we have in use. Combined with a small reserve fund for further equalization, it would form an almost ideal apportionment plan for any state having sufficient funds at hand to make its use possible.

[26] *Maryland Laws of 1900,* Ch. 330.
[27] *La. Acts of 1904,* No. 37, Sec. 6.   [28] *Del. Laws of 1903,* Ch. 342.
[29] *Ind. Laws of 1903,* p. 528. Approved March 11, 1903.

CHAPTER XVI

Summary of Conclusions

We have stated the conclusions at which we have arrived in such detail in each chapter that only a brief summary need be made here. For proofs and for a detailed statement of the reasons for the conclusions the reader must consult the different chapters. The investigation seems to warrant the following conclusions:

1. That due to the changing and the very unequal distribution of wealth, and to the absence of any relation between this distribution and the number of schools which must be maintained, the attempt on the part of different communities to meet the demands set by the state causes very unequal burdens. What one community can do with ease is often an excessive burden for another community. (Chapters II, III, IV.)

2. That, in a general way, the wealth behind each child to be educated or each school to be maintained is greatest where the total wealth is greatest, and least where the total wealth is least. (Chapters III, IV, XIII.)

3. That while it may be possible to maintain schools entirely or almost entirely by local taxation, the doing so involves very slight efforts on the part of some communities, and very excessive burdens for other communities, and that progress under such a plan is slow and difficult. (Chapters III, IV.)

4. That these excessive burdens, borne in large part for the common good, should be in part equalized by the state. To do this some form of general aid is necessary.

5. That a state school tax equalizes the burdens best and easiest and is the most desirable single form of general taxation for schools. (Chapter VI.) What per cent of the total expense this state tax should bear, and how far it should be supplemented by other forms of taxation, we do not attempt to say, though burdens and advantages can be equalized better and more easily

(250)

if the proportion is relatively large. It should not, however, constitute the chief means of support for all the schools of a state.

6. That any form of taxation or endowment for schools fails to accomplish the ends for which it was created unless a wise system of distribution is provided.

7. That judged by the purposes and the standards which we said in Chapter I should control, and which we believe to be correct principles, but few states have as yet evolved a just and equitable plan for distributing the funds which they have at hand, and in most of the states much better educational results could be obtained with the same money by the use of some better plan of distribution.

8. That of the different single bases used for the apportionment of funds, " taxes-where-paid " and the property-valuation bases have no educational significance, and do not tend to equalize either the burdens or the advantages of education. (Chapter VII.)

9. That the use of total population as a basis of apportionment, while an improvement over " taxes-where-paid " or property-valuation, is at best only a rough and unreliable method of approximately determining the number of children for whose education provision is to be made. (Chapter VIII.)

10. That the use of the school census basis for the apportionment of funds, as required by so many state constitutions, and as used in whole or in part by thirty-eight different states (Table No. 37), though an improvement over the other apportionment bases so far mentioned (8 and 9, above), is, nevertheless, one of the worst and most unjust bases of apportionment we have in use, and its complete abandonment in the future for some better single basis or for a combination basis plan is greatly to be desired. (Chapter IX.)

11. That total enrollment, enrollment for a definite period, average membership, average daily attendance, and aggregate days' attendance are each successive improvements over the census basis of apportionment, and each places a premium on more efforts which a community ought to be encouraged to make than the one preceding it. (Chapters X, XI.)

12. That all these bases are defective when used alone, because none make any better provision for the needs of the small school than is made under the census basis of apportionment,

while aggregate days' attendance, used alone, would leave the small school in even worse financial condition.   (Chapters IX, X, XI.)

13. That the real unit of cost is the teacher who must be employed to teach the school, and not the children who may or do attend, and that the teacher actually employed should accordingly occupy a prominent place in any general apportionment plan, the remainder being given on a basis which considers regularity of attendance at the school.   (Chapter XII.)

14. That more equitable results could be obtained by distributing all funds on the basis of teachers actually employed than on any other single basis (8, 9, 10, or 11, above), and that the general adoption of this basis would be an improvement over the census basis, but that the best results can only be obtained by a combination of two or more bases, and hence a combination basis type of apportionment is preferable to any single basis type. (Chapter XII.)

15. That, where the fund at hand for distribution is large enough to permit of the use of such a plan, the best basis for the distribution of funds is a combination of teacher-actually-employed and aggregate days' attendance (or average daily attendance multiplied by length of term).   (Chapter XII.)

16. That if this combination basis of apportionment were adopted by many of the states now using the census basis of apportionment, the minimum demands of the states could, in most cases, be substantially increased without increasing the general school tax. (Chapters XI, XII, XIII.)

17. That it is both just and desirable that the efforts made by communities to provide secondary education and many of the more recent advantages of education, such as kindergartens, manual training, evening schools, etc. (Chapter XV), should be recognized by the state in making the apportionment of funds, and that an incentive should be given to communities to provide these advantages for their children.   (Chapters XIV, XV.)

18. That even after a distribution has been made on such a combination basis as that mentioned in 15, there still probably would be heavy burdens to be borne by some poorer communities, in which case a certain "reserve fund" should be set aside, to be distributed by some responsible educational body, for the relief of those communities which have made the maximum effort allowed

by law and yet are unable to meet the minimum demands of the state, and those whose peculiar circumstances make some additional assistance particularly desirable. (Chapter XIII.)

19. That the state, in making the apportionment to the counties, ought to use as good an apportionment basis as is used by the counties themselves in making the apportionment to the townships or districts. The use of a good combination basis of apportionment within the counties cannot overcome the inequalities created between the counties when the state apportionment is made on an essentially inferior basis, as for example, census. The best plan would seem to be that the state and county apportionments be made on essentially the same combination basis, the state apportionment being made to the counties instead of to the townships or districts only that any county funds may first be added before making the township or district apportionment.

20. In states having no state school tax and only a relatively small income from the permanent school fund of the state, this income ought to be reserved, in part at least, for use in aiding necessitous communities and as subsidies to encourage the introduction of new and desirable advantages, and it should not be distributed indiscriminately to all. (Chapters XIII, XV.)

21. That the present plans in use for the apportionment of school funds in fully three-fourths of the states of the Union are in need of careful revision, and that there is likewise need for a more careful study of this problem than has been given it so far by most of the states if it is desired that future evolution shall take place along more intelligent lines than has been the case in the past.

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