

THE UNIVERSITY OF MINNESOTA

GRADUATE SCHOOL

Report  
of  
Committee on Thesis

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

*M. S. Miller*  
Chairman

*M. S. Miller*

*W. J. Langness*

Date 1922

THE UNIVERSITY OF MINNESOTA  
GRADUATE SCHOOL

Report  
of  
Committee on Examination

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

Master of Arts.

We recommend that the degree of

Master of Arts

be conferred upon the candidate.

*M. J. Neale*  
Chairman

*N. S. Miller*

*M. J. Sanderson*

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Date \_\_\_\_\_

A COMPARATIVE STUDY OF BOARDS OF EDUCATION FISCALLY  
DEPENDENT AND OF BOARDS OF EDUCATION FISCALLY  
INDEPENDENT OF MUNICIPAL CONTROL.

BY  
JOHN GRANRUD

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SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
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A COMPARATIVE STUDY OF BOARDS OF EDUCATION FISCALLY  
DEPENDENT AND OF BOARDS OF EDUCATION FISCALLY  
INDEPENDENT OF MUNICIPAL CONTROL.

CHAPTER I.

Introduction.

IMPORT OF PROBLEM. During the past twenty years there has been a great deal of discussion as to the relative efficiencies of boards of education which were fiscally dependent and boards of education which were fiscally independent of municipal supervision and control. The problem is of great importance. Obviously the control of not only school finances, but also the control of educational policies, has been involved. Up to the current year no attempt has been made to scientifically measure the two types. Discussion and argumentation have been substituted for accurate demonstrations.

PURPOSE OF STUDY. The present study has been made in an attempt to discover whether or not, by the application of the comparative and statistical methods, any differences in relative efficiency would be made to display themselves.

SOURCES OF MATERIAL. In pursuing this study it has been found necessary to obtain data from the sources given below, as well as from a number of other publications recorded in the bibliography.

Inquiry I, II and III. National Committee for Chamber of Commerce Cooperation with Public and the American City Bureau, Know and Help Your Schools.

Financial Statistics of Cities having a Population of Over 30,000, 1918, Department of Commerce.



Statistics of City School Systems 1920, Bulletin 24,  
Bureau of Education.

The data collected and the conclusions formulated have presented themselves under the following heads:

- Chapter II. Historical Development.
- Chapter III. Importance and Scope of Problem.
- Chapter IV. Theory and Practice in Control of Boards of Education.
- Chapter V. Obstructions to Accurate Measurement of Results Obtained by Independent and Dependent Boards.
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- Chapter VII. Method Used in Comparing Cities.
- Chapter VIII. Presentation and Interpretation of Data Collected for Present Study.
- Chapter IX. Conclusions.
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CHAPTER II.

Historical Development.

CONSEQUENCES OF RAPID GROWTH. In the correspondence of Thomas Jefferson is found a letter in which he expresses the greatest admiration for the people of New York, because in one year they spent approximately two and one half million dollars for the purposes of education.<sup>1</sup> It should be noted that this amount included not only the sums devoted to elementary and secondary school education, but also those spent for colleges as well. It is an interesting fact that in the year 1919, only one hundred years later, New York City alone spent fifteen times as much for its public schools as the whole state spent in 1819 for its entire list of educational activities.<sup>2</sup> The tremendously rapid growth indicated by the increase of expenditures in New York during the past century is typical of the development which has taken place all thru the country. Further, it is evident that this growth has been particularly accelerated during the past few decades. The increase in the scope and complexity of the demands has been felt in every existing project. Possibly to an exceptional extent has it been reflected in the problems of school administration. Indeed, so constant has been the necessity for changes to accommodate developing situations, so imperative the need for reorganization after reorganization, that controlled and systematized methods of progress could hardly have been expected. Each state and each community has felt it best to

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- (1). Foley, J. The Jeffersonian Encyclopedia. pp. 277.  
(2). In 1918, New York City spent on its public schools  
\$44,975,896.

provide for and administer the public schools, not in accordance with widely and generally accepted existent standards, nor in accordance with the requirements of definite educational theory, but more often with the consideration of individual momentary demands. The fact that educational problems have often been handled by men with no professional training and the fact that a body of universally approved standards has never been developed, should also be remembered.

DEVELOPMENT OF BOARDS OF SCHOOL CONTROL. The consequences of such ungoverned progress are clearly manifested in many phases of educational administration. By no means to an inferior degree do they display themselves to the student of the various organs which direct the public schools. Here, as elsewhere, no unified, governed development has taken place. The greatest variability as to the size, basis of selection and tenure of office of such boards of education may be found. No general characterization can describe the situation. Not greatly influenced by location or relative size of city, various differences in school boards exist. In some cities boards of school control consist of from three to five directors, while in others as many as fifteen directors are found;<sup>3</sup> some boards are elected, some appointed; in some cities a continuous board is provided for, in others new boards are empowered at regular intervals. General agreement upon definite standards is, however, more or less rapidly ironing out irregularities. The organization of boards of school control is gradually becoming more uniform.

DEVELOPMENT OF POWERS OF BOARDS OF SCHOOL CONTROL; ITS RELATION TO MUNICIPAL GOVERNMENT. Whereas the general

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(3). The Boards of Education are made up of fifteen members in Pittsburg, Philadelphia and Milwaukee.

acceptance of a body of definite standards is tending to eliminate the variabilities in the organization of boards of school control, no such unanimity of opinion has been found in regard to the duties and powers which such boards should possess. The relation of the school board to the municipality in which it functions has been one of the preeminent problems of school administration. There have been two opposing theories on this question. Many have held that the public school system is properly a department of the city government as are the fire, health and police departments. Supporting this contention, they have claimed that educational experts are not competent to handle the finances of the school. Furthermore, they have claimed that the taxes should be qualified to the city's expenditures in other departments. This theory implies that the school board's budget should be inspected and passed upon by the mayor, council or some other agency created for the purpose. Opposing this theory, and having as its advocates students of education and the United States courts, has been the conception that education is a function belonging to the state. This theory would divorce the school administration from the municipality. Its adherents have urged that other agencies are incapable of judging the needs of schools, - being handicapped by lack of time and experience, - that municipal governments are notably bad, that education is more than a mere municipal function, and that in the past more adequate school systems have been developed by independent than by dependent boards. Those who have urged this theory advocate that large powers be given to the board of school control, giving it the right to levy taxes with, at most, none other than constitutional limitations, and also the right to expend this money as it deems best.

CHAPTER III.

Importance and Scope of the Problem.

INFLUENCE OF EXTRANEOUS CONSIDERATIONS. As may be easily understood from the foregoing chapter the problem is an important one. Possibly few questions have occupied a more prominent place in the public's attention than has the fiscal control of the public school system. This attention has been enhanced by the fact that there is at stake the establishment of the constitutional agency for the administration of education. Nor is its importance minimized by the fact that from twenty to sixty per cent of every city's total expenditures are involved.<sup>1</sup> As may be assumed the arguments of many have been motivated by extraneous considerations. Those who favor fiscal independence of school boards are often influenced by a reluctance to surrender the control and patronage of such large amounts of money. Very often a consideration of control of physical properties enters in. Upon the other hand the advocates of fiscal independence is generally interested not so much in the actual control of moneys as in the control of educational policies. He feels that the "one who pays the piper will expect to call the tune." It is this control which he feels should not be surrendered to in expert hands.

EVIDENCES OF IMPORTANCE OF PROBLEM. That this problem has been of the widest scope and has been considered of the greatest moment is evidenced by the number of cities in which the question has been discussed. In 1902 Rollins classified all cities with a population of over 250,000 with reference to the fiscal dependence

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(1). Bellingham, Washington for instance spends 64.8 of its total municipal expenditures for schools. Dept. of Commerce. Financial Statistics of Cities Having a Population of 30,000. 1919.

or independence of their boards of education.<sup>1</sup> In 1921 Frazier classified the same cities and found that, whereas fourteen of these cities were dependent in 1902, in 1921 only seven were dependent.<sup>2</sup> This fact evidences that even in the large cities there is a tendency to give the school boards independence of fiscal action. At the present time the question occupies the attention of a number of cities. Very recently the city of Minneapolis discovered adherents on either side. In this city the total of the educational budget is subject to the revision of the Board of Estimate and Taxation.<sup>3</sup> Preparations for changing the provisions of the new charter were only retarded by the fear of complicating more vital issues. Various other cities are struggling with the same problem. Constant dissatisfaction is expressed by many New York citizens with their dependent school boards. Newspaper cuts given by Frazier indicate that many other cities in all parts of the country have become discontented with the character of the control exercised by mayors or councils.<sup>4</sup> Such data indicates the importance, and the realization of the importance, of the problem treated in this study.

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- (1). Rollins, Frenk. School Administration in Municipal Government. p. 24.
  - (2). Frazier, G.W. The Control of City School Finances. p. 34.
  - (3). Minneapolis City Charter, Chapter XV, Section 2.
  - (4). Ibid, p. 32.

## CHAPTER IV.

### Theory and Practice in Control of Boards of Education.

PURPOSE OF CHAPTER. In a preceding chapter an attempt was made to indicate the current practice in municipal control of boards of education. The present chapter aims to record conditions in greater detail and to suggest some of the tendencies of present day theory as advanced by advocates for and opponents of the separation of the school boards from the city government.

PRESENT PRACTICE IN AMERICAN CITIES. The current practice of American school administration is detailed in Bulletin, 1917, No. 8 of the Bureau of Education.<sup>1</sup> This bulletin reports that in forty-three per cent of the cities of over 100,000 population the boards of education make up their budget without referring it to any municipal agency; fifty-seven per cent of the cities are dependent upon the mayor, council or board of estimate. Of the cities of from 25,000 to 100,000 population, sixty-one per cent are independent, while thirty-nine per cent are dependent upon some form of municipal control. Since 1902 the city council has been losing ground in the right to supervise the expenditures of boards of education. This fact was also noted in a previous chapter.<sup>2</sup>

DISTRIBUTION OF DEPENDENT AND INDEPENDENT CITIES. Those who believe in the independence of school boards of education feel that education is a function of the state and should consequently be governed by state law. An examination of state laws shows no uniformity in the treatment of this question. The laws of some

- 
- (1). Frazier, G.W. Control of City School Finances, p. 40.  
(2). Deffenbaugh, W.S. Current Practice in School Administration, 1917, Bulletin No. 8, p. 8.

states definitely make the boards of education fully responsible for their schools; others give these boards liberal powers over expenditures but not over the levying of taxes; still others give such boards control of neither raising nor spending funds. In this connection it should be remembered that the school tax levy is purposed only to cover the current expenses of the school, since nearly all states require that bond issues must be voted upon at a general election. There is the greatest variability in the character of State laws governing boards of education. The laws of New York State provide for the domination school boards of unchartered cities by the municipal government.

"In any other city (Buffalo) of the state members of the board of education shall be appointed from the city at large by the mayor except as otherwise provided herein, but in a city having a population of four hundred thousand or more and less than one million, such appointment shall be made subject to confirmation by the council--appointed as herein provided for five years."<sup>1</sup>

The section quoted is a good example of laws which make the boards of education dependent upon the municipal government. The law of the State of Wisconsin makes the board dependent upon the people by the provision that "the town meeting shall levy the taxes for new buildings, teacher's salaries, etc."<sup>2</sup> Wyoming has made similar provisions,<sup>3</sup> as has the State of Michigan for cities of less than 60,000 population.<sup>4</sup> The situation in Delaware is

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- (1). New York State Education Laws, Section 866 No. 5.
  - (2). Wisconsin State Laws, 1919, p. 401. Section 4009.
  - (3). Wyoming State Laws, 1917, p. 38, Section 1935.
  - (4). Michigan State Laws, 1919, p. 30, Section 5676.



unique in that the boards of education must submit to the State Board of Education a monthly statement of expenditures,<sup>1</sup> as well as a budget of expenses for the following year which, when approved, becomes the official budget.<sup>2</sup> In the cities of New Jersey the budget is passed upon by a Board of Estimate,<sup>3</sup> while in the cities of Oklahoma the budget is passed upon by an Excise Board.<sup>4</sup> In some of the Western as well as in some of the Southern states complications are introduced by the county unit system which provides that, while there shall be no supervision of school boards by city authorities, varying degrees of supervision shall be exercised by county boards or commissions. The law of New Mexico states that "it shall be the duty of boards of education of municipal school districts on or before the first day in June in each year, to make and certify to the Board of County Commissioners of the respective counties an estimate of the amount of funds necessary for maintaining school for the ensuing year, beginning September 1st, specifying sums needed for purchase of land, construction, repair and leasing of buildings, interest on bonds, etc., etc."<sup>5</sup> In Nevada the taxes are levied by the County Commissioners.<sup>6</sup> A large number of states, however, provide that no supervision or control shall be exercised over the Boards of Education. The law of Pennsylvania is explicit. "All taxes required by any school district in this Commonwealth, in addition to the State appropriation, shall be levied by the board of directors herein."<sup>7</sup>

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- (1). Delaware State Laws, 1921, p. 26, Section 13.
  - (2). Ibid, p. 27, Section 14.
  - (3). New Jersey. Bulletin No.9, p. 130. Chapter 1.
  - (4). Oklahoma State Laws, 1907, p. 28, Section 119.
  - (5). New Mexico State Laws, 1915, p. 32, Section 4903.
  - (6). Nevada State Laws, 1919, p. 29, Section 148.
  - (7). Pennsylvania State Laws, 1919, p. 33, Section 501.

The various cities in Indiana have absolute authority to levy taxes within constitutional limits.<sup>1</sup> These examples illustrate the general character of the State Laws. It is only possible to generalize in so far as to state that some of the Eastern and Southern states have shown a tendency to place greater restrictions upon the board of education than have the other states.

The degree of dependence enjoyed by a school board may in the majority of cases be learned from a study of state laws. There are, however, a number of cities which are governed partly or wholly by special charters. A conception of the character of such boards may be gained only by an examination of these charters. Seventeen per cent of the cities of over 100,000 population are governed largely by charter, while 25% are governed by both state law and charter; 13.5% of the cities from 25,000 to 100,000 population are governed by a charter, while 9.5% are governed by both.<sup>2</sup> The cities of over 25,000 population which are governed by charter are given in the following table.<sup>3</sup>

T A B L E I<sup>3</sup>

Table Showing Cities Which are Granted Special Charters  
By States.

Albany,	N. Y.	Cambridge, Mass.
Binghamton,	N. Y.	Chicopee, Mass.
New Rochelle,	N. Y.	Fall River, Mass.
Poughkeepsie,	N. Y.	Salem, Mass.
Rochester,	N. Y.	Somerville, Mass.

(1). Indiana State Laws. p. 171, Section 311.

(2). Deffenbaugh, W.S. Current Practice in City School Administration, pp. 42-53.

(3). Ibid, p. 40.

Rochester,	N.Y.	Somerville,	Mass.
Syracuse,	N.Y.	Manchester,	N. H.
Galveston,	Tex.	Grand Rapids,	Mich.
Houston,	Tex.	Sheboygan,	Wis.
Chattanooga,	Ten.	St. Paul,	Minn.
Covington,	Ky.	Minneapolis,	Minn.
St. Joseph,	Mo.	San Jose,	Cal.

Presentation of Current Theory as to Desirable Degree  
of Independence of Education.

NO AGREEMENT OF PRACTICE WITH REFERENCE TO DESIRABLE  
DEGREE OF FISCAL INDEPENDENCE. From the foregoing

paragraphs it is evident that there is absolutely no agreement as to the degree of fiscal independence from municipal authorities that should characterize such boards. Either side has strong arguments and staunch advocates. In order to present a more or less adequate conception of the lines along which opposing theory has split, it has seemed <sup>best</sup> to give the prevailing opinions of either side.

The Case for Municipal Supervision of Educational  
Expenditures, as Presented by its Supporters.

IDEAL OF A UNIFIED CITY LIFE. The concept is held by many that a more complete unification of the various elements which go to make up the organism of a city is necessary before the highest degree of governmental and social efficiency may be reached. The efforts of boards of education to divorce the school administration from any municipal control assume a greater right to independence than is compatible with this ideal. While it is true that education is a state function, nevertheless, it is also a municipal duty and function as truly as are protection of health and property,

or the maintenance of public thoroughfares. That education is of such a character is a fact that has been long recognized by students of American city government. Of all branches of city government there is none more closely allied to the dearest interests of the individual citizen than the education of the children. No other requires or is given such public spirited support. Nor is there another that should be kept so perfectly in tune with public opinion. Many educators have alleged that school systems should be freed from the contaminating influence of city politics, completely forgetting that the average number of the average board of school control is assuredly as susceptible to corrupt influences as is any other member of the city administrative force. And, again, it should be emphasized that so closely allied are the various elements of city life that each is naturally dependent upon the others. Even to free the schools from every evil influence would not protect the others. The effort to separate the school administration from the municipal administration is illogically conceived.

NECESSITY OF QUALIFYING TAXES. That the various elements of city life are equally important should also be remembered. It would take most subtle reasoning to prove that the necessary requirements, the minimum essentials, of these departments should be sacrificed to provide perfectly for schools. The health department, the departments in charge of the protection of property, life and morals, must not be slighted in the interest of education. Each has its place, each must be cared for. Everyone realizes that governmental costs must be pruned. At the very most, greater assessments can not be made. To do so would drive our cities to a "financial Marne." This fact is not disputable; it is obvious.

If the purpose for which educators desire fiscal independence is the fact that they would levy greater taxes and make greater expenditures-- if this is their purpose, they are inevitably proposing to subtract from the budgets of other departments rendering as great proportionate contributions. For a proper distribution of expenditures only one plan is feasible. Such levys as are to be made for the support of the public schools must be carefully qualified to the amounts of money required for the purposes of the park board or for the purposes of health protection or for the purposes of any municipal department. To spend an exorbitant sum for the one means the insufficient support of another. To prevent such injustice a single, unbiased agency must be empowered to supervise all proposed expenditures of every element for the purpose of ascertaining the relative amounts which should be spent on each. And the one logical agency for achieving such a fair distribution of expenditures is lodged in the main administrative units of the city government.

FINANCIAL INCOMPETENCY OF SCHOOL ADMINISTRATIVE UNIT. In the case of the public schools the above plan for qualifying city expenditures is particularly desirable. At the present time educational thought desires to make the superintendent of instruction the financial superintendent as well. This will mean that the school budget, which is theoretically the organ of the board of education, will in fact be under the direct control of an enthusiast, a man who has thought and lived for education alone. The control of the largest proportion of the normal city's expenditures will be intrusted not to a man of broad and liberal training, not to a man trained to use true and accurate perspective, but it will be intrusted to a specialist, to a man whose very choice of a

profession has proved him to be an idealist. It will be the duty of this man to develop an educational budget and submit it to the board for casual, cursory examination. It could not even be hoped that such a budget would not often be of an unrestrained, impractical nature.

The Case for Fiscal Independence of School Boards, as Presented by Its Advocates.

WIDENING SCOPE OF PUBLIC SCHOOL'S ACTIVITY. There has been no evidence that independent school boards have been profligate of the responsibility reposed in them. On the contrary, there is every reason for believing that they have discharged their duties with both prudence and discretion. Furthermore, there is a basis for believing that these boards have exhibited a strong determination to maintain good schools. That the public schools of the future will require an even truer, finer type of educational and financial leadership is not to be disputed. School costs are, and should be, increasing. In part this is due to the same reasons that have caused increased costs in every existing activity. But it may also be attributed to a more vital and permanent reason. The value of education to a democracy, the dangers lying in the existence of an illiterate body of citizens. presented themselves so definitely during the war that popular sentiment has demanded a vast enlargement of the scope of the school's activities. Previously a limited, somewhat stereotyped training, designed to satisfy the needs of the average pupil, was thought to be sufficient. The realization that the large percentage of people, who were not average and could never be reached by methods based on this premise, really <sup>constituted</sup> ~~contributed~~ a state peril, has motivated entirely different conceptions of the nature and purpose of the

public school. Physical inequalities, once considered solely the affair of the individual, are now held to be within the province of the state. Vocational training, where pupils learn to live life, is receiving increased attention. The demands for special classification, for greater playground space, for improved hygienic conditions, are making themselves felt. Finally, the conception of the state's duty in education has become so broadened that provision must now be made for adult commercial courses, for preparation for various trades and for work in Americanization.

NEED FOR MORE MONEY. This magnified interest in education has shown itself in such definite form that school enrollments throughout the country have tripled where population has only doubled. These specialized activities and increased enrollments can be provided for only by the expenditure of ever-increasing sums of money.

UNHAMPERED BOARD MEMBERS REQUIRED. The program has assumed such large proportions, and involves so much, that it can be carried on only through the activities of energetic, able men. Not only will the direction of educational projects in themselves require judgment and foresight, but well-planned campaigns must be made to convert every community to the need of these activities. Laymen in every locality will have to be educated to the requirements of the situation. If any measure of success is to be attained, the men planning and directing this program must be inspired, constructive citizens, working solely in the interest of their communities. They must not only be honest and capable, but must be in close touch with conditions. These men must be allowed to work freely, unhampered by personal considerations.

EDUCATION IS A STATE FUNCTION; EXERCISED THRU BOARD. In view of the demands of this program and even without consideration of the present character of city politics, it seems evident that education has become more than a municipal problem. The dependence of many school boards upon various political boards and commissions, be they ever so well-meaning, hardly augurs well for the development of educational projects. Education is very properly a function of the state and by the state should it be handled. The immediate extension of state supervision seems to be the logical solution. This supervision should be exercised through the school boards. Elected as representatives of the community, they should be responsible only to the community and to the state. The only constrictions upon their activities should be determined by the state. And in this connection it will be remembered that school board members are not professional educators with the bias and surplus enthusiasm supposed to characterize those who have worked long in one field, but laymen who have been chosen for their judgment and open-mindedness.

A PROGRAM FOR EDUCATIONAL ADMINISTRATION. This board, endowed with proper authority by the state, should be given large powers of directing the educational policy of the school system, powers obviously dependent upon their ability to raise and spend school funds. It should have the power to levy and collect taxes at a time not necessarily related to that set for levying municipal taxes. The responsibility for the maintenance of the school system would in this way be definitely placed. This board should also be given the authority to borrow money or to issue bonds with the consent of the voters. Such perfect control will permit these men to freely work out their philosophies of education. The consideration



of results attained as compared to the money spent will be substituted for that of city politics. To many this may appear as a radical step, but it should be remembered that this is not an untried theory. Boards of education, completely separated from their municipal governments, have operated for years; it is beyond belief that they will function with less devotion merely because the complex and highly organized nature of education has demanded their adoption.

CHAPTER V.

Obstructions to Accurate Measurement of Results Obtained  
By Dependent and Independent School Boards.

PRESENT USE OF SCIENTIFIC MEASUREMENTS. The belief that "what is, exists in some amount and can be measured" is not new. The significant characteristic of the scientific attitude towards education is the desire to measure the results, the achievements, of such education. This has been evidenced by the number of surveys which have been made, aiming to evaluate the various features of the individual school systems. The increasing popularity of mental and educational tests is but another expression of this lively desire to accurately score these results. No less eager have been the exponents of various administrative theories to seek out and to determine the results attained by different methods.

DESCRIPTION OF COMPARATIVE METHOD. In order to scientifically estimate the relative effectiveness of fiscally dependent and independent boards of education certain standards of measurement have been required; and such standards have been selected as would presumably indicate the character of educational practices and results, with a consideration of the expenditures of money necessary to secure them. Naturally the aim has been to secure standards of such a nature that reliable results might be secured. Such a standard of efficiency in reading could not be secured for all cities. nor would material gathered under varying conditions be reliable. Again, such measurements were chosen as were considered indicative of merit. They were also thought to be of such a nature as to be indexes of typical conditions. The amounts of money spent for outlays might vary so much from year to year as to be unrepre-

sentative of conditions. Using such standards as a basis for measurement, large groups of cities have been compared. The theory underlying such a comparative method, as has been described, is that the validity of its application cannot be questioned if the basis is raised above mere one to one comparisons; that most of the differences, which would tend to destroy the reliability of conclusions derived from a comparison of individual cities, become variable when large groups are used. That such a method is absolutely accurate has never been maintained. But it has been believed by many that any great differences existing between the respective groups must inevitably be revealed.

There are, however, tremendous difficulties to be surmounted before results obtained thru the above described method may be considered valid. Some of the objections which immediately suggest themselves are:

1. Different methods of accounting.
2. Variability in city conditions and governments.
3. Variability in degrees of state control and support.
4. Influence of geographical location.
5. Difficulty of selecting standards which will measure school efficiency.

DIFFERENT METHODS OF ACCOUNTING. One of the objections to the use of the comparative, statistical treatment of cities is the great dissimilarity in methods of accounting which has existed in the past and does exist at present. So different have these been that many authorities have been exceedingly skeptical as to any conclusions drawn with city expenditures as a basis. Not only have no two cities employed the same methods, but as a rule the various departments in individual cities have had no unified, organized

method of recording disbursements. So grievous has been this condition that only through the agency of an expert accountant could even approximate findings be obtained. To casually compare cities, where the fundamental bases for comparison have been so totally lacking in uniformity, has appeared to many an illogical proceeding, fruitful of only unwarranted assumptions.

VARIABILITY IN CITY CONDITIONS AND GOVERNMENTS. Though the variability in methods of accounting <sup>has</sup> been great, it is of little import when compared to the tremendous differences which appear in the cities compared. The vast degrees in which these vary may only be suggested. In the first place there is the lack of uniformity in size. The theory that in all essentials city life is the same in a city of thirty thousand as in a city of millions and that these may be reduced to type is a theory which many may be <sup>open</sup> found to question. Again each city has its problems, unique and peculiar to itself. In some are found large parochial schools; in others are found an unusual percentage of immigrants. Some must spend exorbitant amounts to obtain water, while in others topographical conditions make necessary large expenditures for roads. Further, there is the lack of uniformity in the way administrative problems are handled. There are cities which have placed all playgrounds in the hands of the park boards, while others made the care of these the function of the board of education. Certain cities, located in garden spots, need to spend but little for health. And, finally, there is to be found a variance in civic pride, in culture and ideals which places each city in a separate class.

VARIABILITY OF STATE CONTROL AND SUPPORT. Another difficulty, which presents itself to the one who attempts to employ the comparative method for the purpose of measuring the relative effi-

ciency of city school systems, is the variability in state control and support. The state departments in instances require cities to meet certain requirements. Such requirements in certain states are higher than in others; and, naturally, there fulfillment reflects little credit upon the various school-boards. Besides this control, varying proportions of the school revenue are provided by the state. In some states this amount is low, in others it represents a large percentage of the total. It is obvious that to this extent also individual boards have small responsibility.

DIFFICULTY OF SELECTING STANDARDS. A final and most important obstruction to the statistician is the difficulty of selecting standards which will truly measure school efficiency. There are many different conceptions of school efficiency. Some people stress one element, while others emphasize a different one; one man will aver that the school's most important function is to teach the children to use the tools of learning, while a second man will assert that the inculcation of high ideals is really the important duty of the teacher. But even though the true function of a school were definitely agreed upon, and even though all previously suggested difficulties were done away with, there would still remain the difficulty of measuring its worth. So broad is the term, so much does it include, that it is doubtful whether any set of standards could be got together which all would accept as indexes in a final rating.

CHAPTER VI.

Fiscal Control of City School Systems as Presented

By G. W. Frazier.

METHOD OF WORK USED BY FRAZIER. Following the plan outlined in previous chapters, G. W. Frazier of Columbia University has developed an interesting thesis.<sup>1</sup> He has explored the chances which a fiscally independent board of school control has of working up a superior system. An attempt was made to compare the systems operated by eighty-two boards, independent not only of municipal but of every type of control, with eighty-seven systems managed by more or less dependent boards. As a basis for measurement six educational items were employed. These were statistically treated in order to make possible the computation of an unweighted index number. The following items are used to compose this index number.<sup>2</sup>

1. The per cent of sixteen and seventeen year old children in school.
2. The per cent of elementary classes having fewer than forty children enrolled.
3. The per cent of children having sixty square feet or more of playground space.
4. The per cent of teachers who have six or more years of training above the eighth grade.
5. The per cent of children enrolled who attend school regularly and in adequate buildings owned by the city.
6. The per cent of increased cost of living from 1913-14 to 1919-20 that was met by increased salaries for ele-

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(1). Frazier, G.W. Control of City School Finances.

(2). Ibid, p. 68.

mentary women teachers.

CONCLUSIONS OF FRAZIER'S STUDY. For each city these percentages were transmuted into standard deviation values since an unweighted index number was desired. Frazier's explanation for the necessity of doing this was that any method of making an index number based on a summation of percentages which come from distributions with different medians is a weighted method.<sup>1</sup> "When each percentage has been given a standard deviation value, the six were combined to make an index number for each city. Coefficient of correlation between the fiscally dependent and independent cities was of a character such that the writer felt assured that independent school boards had proved superior.

WEAKNESSES OF STUDY. The fact that the author has not provided for many of the points of attack, to which this method has been shown not impregnable, has permitted certain glaring weaknesses to present themselves. The correlation itself (-.25) is hardly of sufficient size to permit the writer to draw absolute conclusions.<sup>2</sup> One of the items, namely the one dealing with the amount of training of teachers, was treated in the present study with two different groups of cities.<sup>3</sup> The circumstance that the amount of training proved to be the same for both independent and dependent groups shows clearly that the results obtained by Frazier are far from

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- (1). Frazier, G. W. Control of City School Finances, p. 74.
  - (2). In Frazier's study, a minus correlation between efficiency and independence of school boards indicates that superior results are obtained by such boards. A correlation of .25 is regarded by a number of educators as practically valueless. For example, Rugg in "Statistical Methods Applied to Education," p. 256, states that "a correlation is negligible or 'indifferent' when  $r$  is less than .15 to .20 and present but low when  $r$  ranges from .15 to .20 to .35 to .40."
  - (3) See Table XIII, p.

infallible. Furthermore, a close study of the results obtained by Frazier show that this study is weak because (1) the six items used as factors in the index numbers would not absolutely measure the efficiency of a school system in the minds of all authorities, (2) the results in the various geographical divisions are not consistent with those found in the study as a whole, (3) and the standards of measurement chosen discriminate in favor of the independent school systems.

#### The Component Factors of the Index Number.

THE FIRST FACTOR. The number of sixteen and seventeen year old children in school is used as a measure of holding-power. Since no age-census records were available, this percentage was computed upon a basis of the number of eight and nine year old children in school. The weakness of this standard is that there is no means of estimating the credit which should be ascribed to the board of control and the amount which is due to compulsory education laws. The percentage of pupils found in the high school is a better measure, since state laws compel children to attend school until they have either reached a certain age or finished the eighth grade; but the law compels comparatively few children to attend high school.

THE SECOND FACTOR. The per cent of elementary classes having fewer than forty children enrolled is used as the second factor. This factor would be of greater strength if a scientifically conducted study had ever proved small classes to be better than large ones.

THE THIRD FACTOR. The per cent of children having sixty square feet or more of playground space is surely desirable according to the concensus of opinion. But that the systems which provide this are necessarily more efficient, and not more fortunately



situated, is not shown.

THE FOURTH FACTOR. In a previous paragraph it was shown that the results obtained for the fourth factor, the amount of training possessed by the teachers, are not infallible. The same standard has been used in the present study and no difference is found.

OTHER CRITICISMS. That the two remaining factors are of an acceptable nature cannot be doubted. But that the six factors used in this study or any group of factors, used as the basis for a comparative study, may prove more than an indication of one groups superiority is very much to be doubted. The efficiency of a school depends on too many things. The influence of state laws and control, together with the other qualifying circumstances described in the previous chapter, must all be taken into account. The amount of money spent, as compared with results achieved, and the character of the distribution of funds, are items not to be forgotten. The type and location of buildings, the kind of equipment, the courses of study and their time allotment, the ratio of children to population, the quality of supervision--all of these factors and a host of others would seem to forbid the student from making too absolute assumptions. Even a heavy balance in results of the six factors, instead of the slight one arrived at, would hardly afford more than an indication of one groups superiority.

#### Inconsistent Results by Geographical Limits.

THE EASTERN GROUP. Even though one should assume the adequacy of these measures other serious weaknesses exist. An examination of Frazier's study by geographical groups discloses inconsistencies. The author neglected to give any results by sections, but treats all cities as a whole. If one studies the figures given for each individual geographical group discrepancies are found.

In the case of the Eastern group such a condition was found to exist. Percentages are given for each city for the six factors. The medians in each case were found. It is noteworthy that in three of the factors given the dependent cities scored very much higher than did the independent cities--indeed, they outranked the independent cities in three, while in the case of two of the other factors the difference was negligible. The following medians for the factors of both groups of Eastern cities are given in the following table.

T A B L E II<sup>1</sup>

Median Percentages for Independent and Dependent Cities for Six Factors: Eastern Cities.

Factor.	Median Percentage of Dependent Cities	Median Percentage of Independent Cities
1. Percent of Sixteen and Seventeen Year Old Children	24	40
2. Percent Elementary Classes having fewer than forty children enrolled	72	50
3. Percent of Children having Sixty Square feet of Playground	34	19
4. Percent of Teachers who have six or more years training above the eighth grade.	84	67
5. Percent of Children who attend School all day.	95	98
6. Percent of Increased Cost of living met by salary increases.	70	73

This table shows that in the Eastern group the dependent cities are superior to the independent cities as measured by the index number.

(1). Frazier, G.W. Control of City School Finances, p. 108  
Sixty of the one hundred and sixty-nine cities studied by Frazier are Eastern cities.

SOUTHERN CITIES. Again in the case of the Southern group no appreciable difference is revealed. In the same manner followed in the case of the Eastern group the median percentages for the various factors were found for the independent and dependent cities of the Southern geographical unit. These medians are given below:

T A B L E III<sup>1</sup>

Median Percentages for Independent and Dependent Cities  
for Six Factors: Southern Cities.

Factor	Median Percentage of Dependent Cities	Median Percentage of Independent Cities
1	36	44
2	70	65
3	40	66
4	42	67
5	80	95
6	46	52

It is evident from this table that one type of control seems to be as efficient as the other. An incongruous fact is also exposed by a comparison of Southern and Eastern groups. The Southern cities as a whole rank about as well as the Eastern cities as a whole; the Southern independent cities exceed either group of Eastern cities in three factors and tie them in another. One is tempted to question the value of any data which places Southern cities on a par with Eastern cities.

FINDINGS INADEQUATE. And it must not be forgotten that there is no justification for drawing general conclusions for the whole country upon data which, in two geographical divisions out of four, fails to show any essential difference.

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(1). Frazier, G.W. Control of City School Finances, p. 109. Frazier has twenty-six Southern cities

Factors Discriminate Against Independent Cities.

DISTRIBUTION OF CITIES. The following table shows the distribution of dependent cities by size for each geographical group. The median city in respect to population was chosen. The percentage of the independent cities in the smallest half of each group was then calculated.

T A B L E IV.<sup>1</sup>

Table Showing Percentage of Cities in the Smallest Population Groups (Cities Below Median) which are Independent.

	Per cent of Cities which are Independent.
Eastern Group	66 $\frac{2}{3}$
Southern Group	50
Great Lakes	56
West	50

The above table shows clearly that the independent cities are found in the largest proportion to be in the group of cities below the median population of each group. Conversely, the dependent cities are to the same degree the larger cities. This was shown in another way. The proportion of dependent cities in a group of cities, composed of the ten largest cities of each geographical group, was 65 per cent. The dependent cities, therefore, are the largest from a standpoint of population.

STANDARDS DISCRIMINATE AGAINST LARGE CITIES. That the factors chosen by Frazier as components of his index number discriminate against the larger cities may easily be demonstrated.

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(1). Frazier, G.W. Control of City School Finances, pp. 108-114.

That this discrimination would apply to each and every factor may be true. In the case of four of these factors, recent studies have proved this true. The per cent of sixteen year old children in school, the per cent of elementary classes having fewer than forty children enrolled, the per cent of children having sixty square feet or more of playground space, and the per cent of children enrolled who attend school all day and in buildings owned by the city have in each case been shown to be less in the case of large cities.

DISCRIMINATION AGAINST LARGE CITIES IN THE CASE OF FIRST FACTOR. The unfairness to large school systems which obtains with these standards is plainly shown in the case of the first factor by data which have been presented by the National Committee for Chamber of Commerce Cooperation with the Public Schools and the American City Bureau. These data show that in the small cities 49% of the sixteen year old children are in school, in the middle cities 41% and in the large cities only 32%<sup>1</sup>. These figures are based on reports of the public school enrollment by ages. There were excluded from the group all the cities reporting elementary school enrollment only, and all those whose reports grouped several ages together.

DISCRIMINATION AGAINST LARGE CITIES IN THE CASE OF SECOND STANDARD. The discrimination against large cities is also evident in the case of the second standard. This is revealed by an examination of data relative to the size of elementary school classes as compared to population of cities which have been published by the National Committee for Chamber of Commerce Cooperation with the Public Schools and the American City Bureau. These have been included in the second report Know and Help Your Schools of this

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(1). National Committee for Chamber of Commerce Cooperation with the Public Schools and the American City Bureau, Know and Help Your Schools, Second Report, p. 16.

Committee and are given below in Table V. In this report cities of over one hundred thousand population are regarded as "large" cities; cities of less than one hundred thousand but of more than thirty thousand population are considered "middle" cities.

T A B L E V<sup>1</sup>

Number of Pupils in Median Elementary School Classes  
15 Geographical and Size Groups.

Groups of Cities	Pupils
Small Eastern	36
Middle Eastern	36
Large Eastern	40
Small Southern	33
Middle Southern	39
Large Southern	37
Small Great Lakes	34
Middle Great Lakes	36
Large Great Lakes	39
Small Great Plains	36
Middle Great Plains	34
Large Great Plains	42
Large Western	33
Middle Western	35
Large Western	36

It is very plain from the above table that in practically every case the median number of pupils in the elementary classes is larger in the larger cities than in the smaller ones. The use of such a standard for comparing two groups of cities, one of which groups has a larger proportion of large cities than does the other, is unfair to the group having the large cities, if proper allowances are not made for this difference.

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(1). The National Committee for Chamber of Commerce Cooperation with Public Schools and the American City Bureau, Know and Help Your Schools, Second Report, p. 18.

T A B L E VI.<sup>1</sup>

Number of Square Feet of Playground Space per  
Median Child, 15 Geographical and Size Groups.

Group of Cities	Square Feet
Small Eastern	68
Middle Eastern	36
Large Eastern	11
Small Southern	82
Middle Southern	39
Large Southern	108
Small Great Lakes	99
Middle Great Lakes	76
Large Great Lakes	38
Small Great Plains	146
Middle Great Plains	82
Large Great Plains	65
Small Western	176
Middle Western	148
Large Western	106

DISCRIMINATION IN THE CASE OF FIFTH FACTOR. In the case of the fifth factor data <sup>are</sup> ~~is~~ available as <sup>to</sup> the age of the school buildings in different population groups. As to the number of pupils who attend school all day data were not available. The figures given below show that the pupils in large systems are housed in older buildings than the school pupils of small systems; and that judged by this criterion, at least, are less adequate.

(1). The National Committee for Chamber of Commerce Cooperation with Public Schools and the American City Bureau, Know and Help Your Schools, Second Report, page 25.

T A B L E VII<sup>1</sup>

Age of Building in Which Median Pupil is Housed  
Fifteen Geographical and Size Groups.

Groups of Cities	Years.
Small Eastern	20
Middle Eastern	22
Large Eastern	23
Small Southern	16
Middle Southern	16
Large Southern	21
Small Great Lakes	19
Middle Great Lakes	20
Large Great Lakes	23
Small Great Plains	15
Middle Great Plains	16
Large Great Plains	26
Small Western	11
Middle Western	14
Large Western	17

GENERAL CRITICISM. The study by Frazier is open to serious criticism. The component factors may be challenged as absolute measures of efficiency. Studied geographically the results are inconsistent. The standards are unfair to the dependent cities.

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(1). The National Committee for Chamber of Commerce Cooperation with Public Schools and the American City Bureau, Know and Help Your Schools, Second Report, page. 30.



## C H A P T E R VII.

### Method of Comparing Cities.

PRELIMINARY STATEMENT OF METHOD. The purpose of this study is, as was stated in Chapter I, to find out whether or not, by the use of the comparative method, any differences may be shown to exist in the relative efficiency of independent and dependent boards of education. In order to do this it was necessary to select the bases for comparison and to properly limit and classify a representative number of cities.

#### Selection of Bases for Comparison.

CHARACTER OF STANDARDS. The rules which must guide the selection of standards, to be used as bases for the comparison of fiscally independent and dependent cities, have been taken up in previous chapters. In recapitulation it is only necessary to say that such measures should view school efficiency from as many facts as reason and limited sources of data may permit. They must, further, be generally accepted as measures of efficiency. They should measure financial expenditures because there is a high correlation between such expenditures and efficiency, and because they are indexes of effort. The real function of the school, education of the children, should likewise, in as far as possible, be measured. Nine standards have been chosen for the present study.

THE FIRST STANDARD PERCENTILE EXPENDITURES. The expenditures of all municipal departments have been reduced to percentages. This standard has one disadvantage in that it places the poor, unprosperous city on an equality with the rich and thriving city. It reduces each city to a common type.

THE SECOND STANDARD: COST PER PUPIL IN AVERAGE DAILY

ATTENDANCE. The cost per pupil in average daily attendance has been used. This is valuable for measuring the actual amount of money spent on each child and consequently indicates the type of education afforded. It is also valuable for ascertaining exactly how such money is distributed among the various departments. Since such expenditures are variable that portion spent for night schools, as well as the cost of instruction in such night schools, has been excluded, as have all unusual expenses for equipment or new buildings. Only the ordinary current expenses of maintaining these day schools have been included.

THE THIRD STANDARD: PER CAPITA COSTS. The costs and payments, per capita, serves to measure what the actual effort of each citizen really is in supporting the government and the school.

THE FOURTH STANDARD: PER CAPITA WEALTH. The estimated true value of property, per capita, supplements the third standard and reveals more accurately the ability of a city to finance its schools. Naturally, a wealthy city may be expected to spend on its schools more actual money than a poorer city.

THE FIFTH STANDARD: QUALIFICATIONS OF HIGH SCHOOL TEACHERS. The median qualifications of high school teachers have been calculated. This standard is a guide to the character of instruction furnished in the high school. It is better than knowing the minimum qualifications because it indicates the real amount of training possessed by these teachers.

THE SIXTH STANDARD: QUALIFICATIONS OF ELEMENTARY TEACHERS. This standard accomplishes the same for the elementary school that the fifth standard does for the high school.

THE SEVENTH STANDARD: PERCENTAGE OF SCHOOL PUPILS FOUND IN HIGH SCHOOL. Better than any other does this standard measure the holding power of the school. In most states it represents the efficiency of the school as opposed to that of the lawmakers.

THE EIGHTH STANDARD: MALE PUPILS IN ELEMENTARY SCHOOL. Calculations were made to ascertain in what percentage of the total student body of each school was male. This is another standard representing holding power. In the ordinary system, if holding conditions are poor, it is the male pupil that ordinarily drops out. In this respect, if a large percentage of male pupils are found, the school is efficient.

THE NINTH:STANDARD: MALE PUPILS IN HIGH SCHOOL. What the eighth standard measures in the elementary school, the ninth measures in the high school.

#### Classification of Cities.

SOURCE OF BASIC DATA. In July, 1920, The American City Bureau published the findings of an inquiry which had been sent to all cities of above eight thousand population relating to boards of education, and the receipts and expenditures of urban city schools.<sup>1</sup> In this inquiry the cities of the United States have been classified as to the degree of dependency of their respective school boards. The cities were divided into three general classes, those whose school boards are completely dependent in the full sense of the word, those dependent either upon the mayor or council or some other agency created by the municipal government for the purpose

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(1). The National Committee for Chamber of Commerce Cooperation with Public Schools and the American City Bureau, Know and Help Your Schools, Inquiry No. 1.

of supervising the expenditures of these boards, and those whose school boards are completely independent of any organ of the city government but are dependent either upon the people for the voting of school boards, or upon some county or state commission.<sup>1</sup> Since this study is interested only in the relationships existing between school boards and municipal governments, this last special group has been placed with the independent cities.<sup>2</sup>

CLASSIFICATION OF CITIES ON THE BASIS OF SIZE. The data presented have been studied in their distinct relations to population and geographical distribution. Cities have been classified on the basis of population into two groups, those with a population of from thirty to one hundred thousand, designated as "middle class" cities and those with a population of over one hundred thousand, designated as "large cities". However, it should be remembered that the results of several studies show that the character of the differences found in cities of varying sizes is not<sup>as</sup> fluctuating as might be expected. Many of the same elements enter into the life of a small city that are found in large ones; and these elements have been found to be quite comparable.

CLASSIFICATION OF CITIES ON THE BASIS OF GEOGRAPHICAL DISTRIBUTION. As has been said the cities used in this study have also been classified on the basis of geographical distribution. It is generally fair to compare the cities of the same geographical unit, where it might be unfair to compare cities lying in different

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- (1). The National Committee for Chamber of Commerce Cooperation with Public Schools and the American City Bureau, Know and Help Your Schools, Inquiry No. 1.
  - (2). The type of school control attack as pernicious is that in which some agency of the municipality exercises supervision. However lest it be asserted that controlled boards have been compared with controlled boards, medians have been computed for absolutely independent cities. The results were identical

4-22-34 In the case of the two standards chosen at random. The data are submitted in the Appendix.

sections of the country. For example, to compare certain Southern cities, where racial questions and a strong spirit of individualism act as complicating factors, with cities of other sections where similar conditions do not obtain, might prove unjust. Consequently, each comparative measure is considered in its relation to population and to location. For the purposes of this study the cities have been classified in the following geographical groups.

- I. Eastern, including Connecticut, Maine, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Massachusetts, New Hampshire.
- II. Southern, including Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, West Virginia.
- III. Great Lakes, including Illinois, Indiana, Michigan, Ohio, Wisconsin.
- IV. Great Plains, including Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota.
- V. Western, including Arizona, California, Colorado, Indiana, Montana, Nevada, New Mexico, Utah, Oregon, Washington, Wyoming.

When the cities are classified in this manner, if a measure reveals the same tendency in each group, the results may be considered fairly indicative of a general condition.

REPRESENTATION OF CITIES. The cities used in this study have been selected and classified in the manner described above.

Of the middle population group, consisting of cities of over thirty thousand but not over one hundred thousand population, fifty-one per cent of the cities answered the Inquiry of the American City Bureau and thus made themselves subject to study. Sixty-nine per cent of the large cities are represented. Of the cities of over two hundred and fifty thousand, eighty-eight per cent have been studied. Clearly, enough cities of over thirty thousand population have been considered to give results fairly typical of all cities having a population of over thirty thousand. The total number of cities chosen is one hundred and twenty-five. Of these eighty-one have been classified as independent while forty-four are dependent. The greatest proportion of dependent cities is found in the Eastern and Southern groups. The number of independent cities found in these groups is approximately the same as is the number of the dependent cities, but in the other sections of the country the percentage of independent cities was very much greater. Naturally, certain disadvantages have been encountered in manipulating such an unevenly matched numbers of cities. But due to the fact that a comparison of equal groups would practically have excluded all consideration of the cities of the Great Lakes, Great Plains and Western units, it seemed that a more representative study could be made if the principle of inclusion were followed.

C H A P T E R VIII.

Presentation and Interpretation of Data Collected for Present Study.

PURPOSE OF CHAPTER. The purpose of this chapter is to present and interpret some of the data which have been collected during the prosecution of this study. These data have been manipulated according to the method described in the foregoing chapter. The data in toto have been submitted in the Appendix.

Financial Standards.

PERCENTILE EXPENDITURES. The financial standards, which have been chosen for their ability to measure the general efficiency of the schools, are per capita wealth, per capita cost payments, percentile expenditures and per attendance pupil. Table VIII shows the median per capita wealth for both independent and dependent cities by population and by geographical groups. This table gives the per capita assessed valuation of property with the basis of assessment, the estimated true value of this property. Inspection of this table shows that the medians for each group as a whole are practically the same since the median per capita wealth of all the Dependent groups is \$1186.65 while the median wealth of the Independent group of cities is \$1226.68. The difference between the two is only \$40.03. This is very nearly negligible. Further inspection shows that in four of the eight population and geographical groups, where medians for both dependent and independent cities could be computed, the Dependent cities possess the greater per capita wealth; whereas in the remaining four groups the Independent cities possess the greater wealth. Since one of the premises of this study is that, in order to be conclusive, tendencies must manifest themselves

consistently throughout the various groups, it is evident that neither dependent nor independent cities may be considered superior.

T A B L E VIII.

MEDIAN PER CAPITA ASSESSED VALUATION OF PROPERTY WITH BASIS OF ASSESSMENT THE ESTIMATED TRUE VALUE BY GEOGRAPHICAL AND POPULATION GROUPS.<sup>1</sup>

<u>GROUPS</u>	<u>PER CAPITA WEALTH.</u>
Middle Eastern Dependent	\$ 1148.43
Middle Eastern Independent	882.83
Large Eastern Dependent	1170.24
Large Eastern Independent	1060.46
Middle Southern Dependent	1085.10
Middle Southern Independent	976.00
Large Southern Dependent	1521.48
Large Southern Independent	1196.88
Middle Great Lakes Dependent	1085.77
Middle Great Lakes Independent	1278.55
Large Great Lakes Dependent	1399.94
Large Great Lakes Independent	1520.55
Middle Great Plains Dependent	
Middle Great Plains Independent	1169.32
Large Great Plains Dependent	1820.62
Large Great Plains Independent	1625.15
Middle Western Dependent	1296.16
Middle Western Independent	1264.59
Large Western Dependent	
Large Western Independent	1630.88
MEDIAN FOR ALL GROUPS DEPENDENT	1186.65
MEDIAN FOR ALL GROUPS INDEPENDENT	1226.68

This table shows that the Dependent cities are approximately on a par with the Independent cities, both from a standpoint of median wealth for the individual groups and median wealth for the two groups as units.

(1). Medians computed from data taken from Financial Statistics of Cities Having a Population of 30,000, 1919, Department of Commerce, pp. 318-351.



PER CAPITA COST\*PAYMENTS. The second standard employed in measuring the effectiveness of supervised and unsupervised boards of education is the per capita governmental cost payments for the expenses of general departments and the per capita school-cost payments. The median costs have been computed in exactly the same way that medians for per capita wealth were computed in Table VIII. They are given in Table IX. The median per capita school-costs for all groups of Dependent cities are \$6.62; the median per capita costs for all groups of Independent cities are \$6.56. The difference of six cents is insignificant. In six of the eight individual groups the Dependent cities excel the Independent groups of cities. In the two groups of cities, the Middle Great Plains and the Large Western, for which it was impossible to compute medians for the Dependent cities, the median school-costs for the Independent cities exceed the median costs for all the groups. These two individual groups have raised the medians for the Independent groups as a whole. Studied by the individual groups, the Dependent cities show a slight excess in school costs as compared to the Dependent cities. The medians as a whole do not show the consistent trend needed to draw any definite conclusions.

T A B L E IX.

MEDIAN PER CAPITA MUNICIPAL GOVERNMENTAL COST PAYMENTS FOR EXPENSES OF GENERAL DEPARTMENTS AND PER CAPITA SCHOOL-COST PAYMENTS.<sup>1</sup>

<u>Groups</u>	<u>Total City Gov't Costs</u>	<u>School Costs</u>
Middle Eastern Dependent	\$ 19.29	\$ 7.20
Middle Eastern Independent	13.52	5.93
Large Eastern Dependent	21.85	7.25
Large Eastern Independent	16.21	6.60
Middle Southern Dependent	9.94	3.18
Middle Southern Independent	13.84	4.14
Large Southern Dependent	14.63	5.17
Large Southern Independent	14.84	4.28
Middle Great Lakes Dependent	14.97	6.62
Middle Great Lakes Independent	14.70	6.55
Large Great Lakes Dependent	19.49	7.59
Large Great Lakes Independent	20.96	6.40
Middle Great Plains Dependent	14.07	7.08
Middle Great Plains Independent	14.07	7.08
Large Great Plains Dependent	21.99	7.46
Large Great Plains Independent	23.37	7.47
Middle Western Dependent	20.44	10.78
Middle Western Independent	20.77	8.53
Large Western Dependent	21.99	8.96
Large Western Independent	21.99	8.96
MEDIAN FOR ALL GROUPS DEPENDENT	19.69	6.62
MEDIAN FOR ALL GROUPS INDEPENDENT	15.26	6.56

This table shows that the Dependent cities studied by groups tend to greater per capita school-costs; but when studied as units no such tendency is found to exist.

(1). Financial Statistics of Cities Having a Population of Over 30,000, 1919, Department of Commerce, pp. 204-209.

PERCENTILE EXPENDITURES. Table X shows the character of the distribution of expenses among the principal divisions of the general departmental service. The median percentages of expenditures for all groups of Independent and Dependent cities show that the former devote 41% of the total municipal expenditures to schools and that the latter devote 34.9% to schools. In other words, the cities with <sup>independent</sup> boards of school control are devoting a greater proportionate amount of money to schools than do those cities in which these boards are supervised by some branch of the municipality. That this indicates extravagance does not follow, since Table IX shows that approximately the same amount of money is spent per capita population, and Table XI<sup>1</sup> shows that very nearly the same amounts of money are spent per pupil. A study of separate groups shows this tendency to obtain in five of the eight groups. The additional percentages are taken from the various departments; no one in particular has been jeopardized. When considered with the other tables there is only one conclusion to be drawn -- the Independent cities do not spend more money upon their schools, but spend less upon the other municipal departments than do the Dependent cities.

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(1). Medians computed from Data taken from Statistics of City School Systems. Bulletin of Bureau of Education -- 1920, No. 24, pp. 136-137.

T A B L E X

PERCENTAGE DISTRIBUTION OF THE EXPENSES OF MUNICIPAL GENERAL DEPARTMENTS, BY PRINCIPAL DIVISIONS OF THE GENERAL DEPARTMENTAL SERVICE BY GEOGRAPHICAL AND POPULATION GROUPS.<sup>1</sup>

Groups.	Gen'l Gov't	Protec- tion	Health & San.	High- ways	Char- ities	Lib.& Rec.	Schools
Mid.E.Dep.	%11.1	%18.6	%12.1	%12.1	%4.9	%3.2	%36.4
Mid.E.Ind.	9.8	18.1	10.4	10.3	2.1	2.8	44.4
Lar.E.Dep.	11.8	21.1	12.9	12.3	7.0	5.1	29.3
Lar.E.Ind.	10.4	23.0	10.9	8.1	8.2	4.5	37.5
Mid.S.Dep.	10.9	24.5	19.5	9.7	2.7	1.5	30.9
Mid.S.Ind.	11.1	25.0	9.2	14.5	3.2	2.7	31.9
Lar.S.Dep.	9.7	24.5	12.2	11.3	6.1	4.9	33.4
Lar.S.Ind.	9.1	24.2	11.2	10.1	4.1	5.4	29.4
Mid.Gr.L.Dep.	7.5	17.4	8.7	14.1	2.4	5.4	44.1
Mid.Gr.L.Ind.	13.1	20.5	11.5	10.2	6.4	5.1	35.7
Mid.Gr.Pl.Dep.							
Mid.Gr.Pl.Ind.	9.5	17.3	7.1	8.6	1.5	4.5	52.1
Lr.Gr.Pl.Dep.	11.1	20.1	8.0	13.3	5.7	6.9	33.7
Lr.Gr.Pl.Ind.	12.1	23.1	6.7	11.0	1.0	4.7	41.7
Mid.W.Dep.	7.8	17.3	6.2	19.4	1.3	5.4	52.7
Mid.W.Ind.	10.4	19.2	8.0	11.4	1.5	9.4	41.1
Lar.W.Dep.							
Lar.W.Ind.	13.4	18.6	9.4	9.9	5.5	5.8	40.9
MED. FOR ALL GROUPS DEP.	9.8	20.6	11.1	12.2	4.8	6.2	34.9
MED. FOR ALL GROUPS IND.	10.1	20.5	10.4	10.1	2.6	4.9	41.

The Independent cities, taken as a whole, spend 6.1% more of the total list of municipal expenditures for schools than do the Dependent. This is true also in five out of the eight sub-groups where medians could be computed. These additional sums were taken from various departments, no general tendency being shown.

(1). Medians Computed from Data Taken From Statistics of City School Systems. Bulletin of Bureau of Education, 1920, No.24, pp. 136-7.

PER PUPIL EXPENDITURES. In Table XI is found an analysis of the current expenses per pupil in average daily attendance. \$54.50 is the median amount of money spent upon each pupil by combined groups of Dependent cities; \$55.00 is the amount spent by the Independent cities. The largest single expense is the one for instruction. Here a difference of forty cents is found. In the case of both total current expenses and of instruction no real difference is found. The same thing is true in the case of the other departments. Only one exception exists. The Independent cities spend more for debt service. Studied by geographical and population groups there is found no data which would tend to show any superiority of either type of control.

T A B L E X I.

ANALYSIS OF THE CURRENT EXPENSES PER PUPIL IN AVERAGE DAILY ATTENDANCE BY GEOGRAPHICAL AND POPULATION GROUPS.<sup>1</sup>

Groups.	Total Curr. Exp.	:Cost :Gen. :Cont.	:Cost :of :In's'n	:Cost :of :Op. of :Plant	:Cost :of :Maint.	: Auxil- : liary : Agen.	: Fixed Chgs : & Int. of : Indebtd.
Mid.E.Dep.	54.89	2.10	39.59	8.84	5.45	.90	.49
Mid.E.Ind.	50.56	1.91	33.43	6.51	3.06	.51	5.92
Lr.E.Dep.	54.33	1.67	39.40	7.28	2.27	.88	1.11
Lr.E.Ind.	64.21	2.11	45.18	6.45	3.04	1.07	6.79
Mid.S.Dep.	25.57	1.16	20.28	1.99	1.03	.11	.31
Mid.S.Ind.	35.08	1.32	26.36	3.92	1.62	.51	1.65
Lr.S.Dep.	38.00	.98	30.03	4.18	1.73	.73	.63
Lr.S.Ind.	41.71	2.88	32.10	3.17	1.02	.10	.43
Mid.G.L.Dep.							
Mid.G.L.Ind.	50.57	2.27	35.60	7.23	2.22	1.40	2.15
L.G.L.Dep.	60.92	2.01	46.02	8.54	1.80	.42	2.12
L.G.L.Ind.	56.77	2.03	40.08	7.88	3.30	.96	5.07
Mid.G.P.Dep.							
Mid.G.P.Ind.	46.76	1.71	28.79	5.18	1.61	.31	4.32
L.G.P.Dep.	58.87	1.90	42.30	7.63	3.15	1.01	1.78
L.G.P.Ind.	58.25	2.20	42.17	8.46	2.59	1.27	6.07
Mid.W.Dep.	72.79	1.57	59.37	6.90	3.57	1.32	.06
Mid.W.Ind.	63.88	2.70	46.18	6.49	3.11	1.47	5.38
Lar.W.Dep.							
Lar.W.Ind.	63.09	2.03	47.79	6.18	2.69	.90	4.05
MED.ALL DEP.	54.50	1.70	39.20	6.80	2.70	.70	.40
MED.All IND.	55.00	2.10	39.60	6.60	2.40	.80	4.50

An analysis of the amounts of money spent per pupil shows that both types of boards are spending approximately the same sums. This equality exists in every division.

(1). Medians computed from Data Taken from Statistics of City School Systems. Bull. of Bur. of Education, 1920. No. 24, pp. 136-137.

Educational Standards.

LIST OF EDUCATIONAL STANDARDS. Five educational standards have been selected as complements to the financial standards for measuring the comparative efficiency and effectiveness of the two types of school control treated in this study. These are the percentage of public school pupils found in the high schools, the qualifications of elementary school teachers, the qualifications of high school teachers, the percentage of male pupils in the elementary school and the percentage of male pupils in the high school.

PERCENTAGE OF PUPILS IN HIGH SCHOOL. The first educational standard which has been considered is the percentage of pupils in the public schools that is found in the high schools. Following the method employed in the treatment of the financial standards, medians have been computed for geographical and population groups, and medians have been computed for all groups treated as units for both Dependent and Independent cities. These medians may be found in Table XII. The median percent of public school pupils in the high schools of the Dependent cities is 11.7; the median percent in the high schools in Independent cities is 12.1. The difference is of no import. Examination of the various groups shows that in the Large Great Plains Group the percentages are identical, in four of the others the Dependent groups have a slight advantage and in the remaining three groups the Independent cities excel. It is apparent that neither may be considered superior as measured by this standard.

T A B L E. XII

PERCENTAGE OF PUPILS IN PUBLIC SCHOOLS THAT IS FOUND IN HIGH SCHOOLS BY GEOGRAPHICAL AND POPULATION GROUPS.<sup>1</sup>

<u>Groups.</u>	<u>Percentage of Pupils in High Schools</u>
Middle Eastern Dependent	% 12.5
Middle Eastern Independent	11.7
Large Eastern Dependent	9.1
Large Eastern Independent	9.5
Middle Southern Dependent	9.1
Middle Southern Independent	12.1
Large Southern Dependent	11.6
Large Southern Independent	10.2
Middle Great Lakes Dependent	10.8
Middle Great Lakes Independent	12.5
Large Great Lakes Dependent	15.0
Large Great Lakes Independent	10.6
Middle Great Plains Dependent	
Middle Great Plains Independent	12.9
Large Great Plains Dependent	12.8
Large Great Plains Independent	12.8
Middle Western Dependent	22.2
Middle Western Independent	20.0
Large Western Dependent	
Large Western Independent	16.4
MEDIAN FOR ALL GROUPS DEPENDENT	11.7
MEDIAN FOR ALL GROUPS INDEPENDENT	12.1

This table shows that the medians for all groups of Dependent and Independent cities are 11.7 and 12.1. These figures represent the percentage of public schools pupils found in the high schools. It is obvious that the difference is inconsequential..Studied by individual groups neither type of cities shows superiority over the other.

(1). Data Taken From Statistics City School Systems, Bureau of Education Bulletin, 1920, No. 24, pp. 336-353, 354-367.



QUALIFICATIONS OF ELEMENTARY SCHOOL TEACHERS. The qualifications of the elementary school teachers upon a basis of training and experience constitutes the second educational standard. The computed medians may be found in Table XIII. The amount of training possessed by these teachers is measured by the years which they have attended school above the eighth grade. The median amounts of training are practically the same for all groups combined of Dependent and Independent cities. They are 6.4 years and 6.3 years respectively. The same plane of equality is found in the separate population and geographical divisions. In respect to the number of years of experience a similar condition appears. 10.4 years is the median experience of the Dependent city teacher, 9.5 years the median experience of the Independent city teacher. Considered individually, the groups show the same general tendency towards equality.

T A B L E X I I I

MEDIAN QUALIFICATIONS OF ELEMENTARY SCHOOL TEACHERS UPON  
A BASIS OF TRAINING AND EXPERIENCE BY GEOGRAPHICAL  
AND POPULATION GROUPS.<sup>1</sup>

Groups	Years of training above 8th Grade.	Years of Experi- ence.
Middle Eastern Cities Dependent	6.5	12.
Middle Eastern Independent	6.3	8.3
Large Eastern Dependent	6.3	10.4
Large Eastern Independent	6.4	10.1
Middle Southern Dependent	5.2	6.6
Middle Southern Independent	6.1	7.7
Large Southern Dependent	5.8	11.0
Large Southern Independent	6.5	7.9
Middle Great Lakes Dependent	6.4	9.2
Middle Great Lakes Independent	6.3	9.4
Large Great Lakes Dependent	6.4	11.2
Large Great Lakes Independent	6.2	11.9
Middle Great Plains Dependent	5.6	11.1
Middle Great Plains Independent	5.6	11.1
Large Great Plains Dependent	6.4	11.7
Large Great Plains Independent	6.5	8.6
Middle Western Dependent	6.7	12.2
Middle Western Independent	6.7	12.2
Large Western Dependent	6.4	12.8
Large Western Independent	6.4	12.8
MEDIAN FOR ALL GROUPS DEPENDENT	6.4	10.4
MEDIAN FOR ALL GROUPS INDEPENDENT	6.3	9.5

From the standpoint of neither training nor experience does there appear any appreciable difference between the two groups of Dependent and Independent cities.

(1). National Committee of the Chamber of Commerce for Cooperation with Public Schools and American City Bureau, Know and Help Your Schools, Inquiry No. 1, pp. 42-54.

QUALIFICATIONS OF HIGH SCHOOL TEACHERS. The qualifications of high school teachers were treated in exactly the same manner that was used in the case of the qualifications of the elementary school teachers. The same general results were found. Neither group of cities has better equipped teachers than has the other as measured by these criteria. For the Dependent and Independent groups the number of years training above the eighth grade was 8.3 and 8.4 respectively, and the number of years of experience, 10.6 and 10.8.

T A B L E. XIV

MEDIAN QUALIFICATIONS OF HIGH SCHOOL TEACHERS UPON A BASIS OF TRAINING AND EXPERIENCE BY GEOGRAPHICAL AND POPULATION GROUPS.<sup>1</sup>

Groups	Years of Training above 8th grade.	Years of Experience
Middle Eastern Dependent	8.4	10.6
Middle Eastern Independent	8.4	10.6
Large Eastern Dependent	8.3	10.4
Large Eastern Independent	8.5	12.0
Middle Southern Dependent	7.6	7.0
Middle Southern Independent	8.2	5.5
Large Southern Dependent	8.0	11.8
Large Southern Independent	8.3	12.2
Middle Great Lakes Dependent	8.3	12.2
Middle Great Lakes Independent	8.4	10.3
Large Great Lakes Dependent	8.0	11.9
Large Great Lakes Independent	8.4	12.8
Middle Great Plains Dependent		
Middle Great Plains Independent	8.4	10.0
Large Great Plains Dependent	8.3	12.6
Large Great Plains Independent	8.7	10.7
Middle Western Dependent	9.5	8.5
Middle Western Independent		
Large Western Dependent		
Large Western Independent	8.5	12.2
MEDIAN FOR ALL GROUPS DEPENDENT	8.3	10.6
MEDIAN FOR ALL GROUPS INDEPENDENT	8.4	10.8

The training and experience of high school teachers in the Dependent cities is on a par with the training and experience of high school teachers in the Independent cities. This is true not only for the two types when considered as single units but also when studied by the various subdivisions.

(1). National Committee of the Chamber of Commerce for Cooperation with Public Schools and the American City Bureau, Know and Help Your Schools, Inquiry No. 1, pp. 42.54.

PERCENTAGE OF MALE PUPILS IN ELEMENTARY SCHOOL. The fourth educational standard was the percentage of pupils in the elementary school which were male. The percentages for both are practically identical as is shown by Table XV. The medians for all groups of Dependent cities was 44.6 per cent; the median of the Independent group was 44.4.

PERCENTAGE OF MALE PUPILS IN HIGH SCHOOL. The educational standards used up to this point have brought out only negligible differences in comparative efficiency of Dependent and Independent boards of education. The same result is obtained through the use of the fifth standard, the percentage of male pupils in average daily attendance in the high school. The findings are given in Table XVI. The median percentage of male pupils in the Dependent cities is 44.6, in the Independent, 44.4. Consideration of individual groups shows similar equality.

T A B L E XV

PERCENTAGE OF MALE PUPILS BY GEOGRAPHICAL AND POPULATION  
GROUPS IN AVERAGE DAILY ATTENDANCE IN THE ELEMEN-  
TARY SCHOOLS.<sup>1</sup>

<u>Groups</u>	<u>Percentage of Male Pupils</u>
Middle Eastern Dependent	% 49.5
Middle Eastern Independent	50.4
Large Eastern Dependent	50.2
Large Eastern Independent	50.6
Middle Southern Dependent	47.0
Middle Southern Independent	47.6
Large Southern Dependent	48.1
Large Southern Independent	47.5
Middle Great Lakes Dependent	50.8
Middle Great Lakes Independent	49.5
Large Great Lakes Dependent	49.7
Large Great Lakes Independent	50.4
Middle Great Plains Dependent	49.2
Middle Great Plains Independent	49.2
Large Great Plains Dependent	49.4
Large Great Plains Independent	49.3
Middle Western Dependent	49.1
Middle Western Independent	48.9
Large Western Dependent	44.6
Large Western Independent	49.6
MEDIAN FOR ALL GROUPS DEPENDENT	49.6
MEDIAN FOR ALL GROUPS INDEPENDENT	49.1

49.6 and 49.1 represent the percentages of male pupils in the elementary schools of the Dependent and Independent Cities. The separate groups show that parallel conditions are found in all sections of the country and in cities of varying sizes.

(1). Data Taken From Statistics of City School Systems, Bureau of Education, Bulletin, 1920, No. 24, pp. 354-367.

C H A P T E R IX.

Conclusions.

The present study has had as its aim the attempt to discover whether or not the relative efficiency of boards of education, dependent of municipal control and boards of education independent of municipal control, can be measured thru the appliance of the comparative, statistical method. The conclusions which have been derivable thru the prosecution of the study are:

that any evaluation of school efficiency is of problematical value because of the difficulty of securing acceptable, objective standards of measurement,

that the one published comparative study of fiscally independent and dependent school boards, "The Control of City School Finances" by G. W. Frazier, has drawn conclusions unwarranted by the evidence submitted,

that the data which have been manipulated during the prosecution of this study show no differences in the relative efficiency of the two types of school control,

and, that, although it is probably true that differences of efficiency of dependent and independent boards of education really exist, the comparative, statistical method of research is not sufficiently refined to uncover them.

A P P E N D I X .



T A B L E XVII

PER CAPITA ASSESSED VALUATION OF PROPERTY WITH BASIS  
OF ASSESSMENT THE ESTIMATED TRUE VALUE.

44 DEPENDENT CITIES : 81 INDEPENDENT CITIES.

<u>Dependent Cities</u>	<u>Estimated True Value</u>	<u>Independent Cities</u>	<u>Estimated True Value</u>
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Middle Eastern Cities.

Brockton, Mass.....	\$831.17	Allentown, Pa.....	\$840.22
Brookline, Mass.....	2586.13	Altoona, Pa.....	936.63
Elmira, N.Y.....	859.39	Amsterdam, N.Y.....	675.67
Everett, Mass.....	999.22	Bayonne, N.J.....	963.91
Holyoke, Mass.....	1177.99	Easton, Pa.....	1164.58
Jamestown, N.Y.....	1200.80	East Orange, N.J.....	1226.68
New Britain, Conn.....	872.64	Elizabeth, N.J.....	877.22
Newport, R.I.....	2398.12	Harrisburg, N.J.....	1119.02
Newton, Mass.....	1666.10	Norristown, Pa.....	865.43
Pawucket, R.I.....	1162.34	Passiac, N.J.....	882.83
Pittsfield, Mass.....	1027.53	Perth Amboy, , , , , , , , , ,	736.50
Portland, Maine.....	1459.28		
Poughkeepsie, N.Y.....	1134.52		
Schenectady, N.Y.....	937.56		
Somerville, Mass.....	933.60		
Stamford, Conn.....	1213.24		
Waterbury, Conn.....	1272.47		
Woonsocket, R.I.....	887.05		
<u>Median.....</u>	<u>1148.43</u>	<u>Median.....</u>	<u>882.83</u>

Large Eastern Cities.

Baltimore, Md.....	1459.07	Boston, Mass.....	2004.30
Buffalo, N.Y.....	1125.99	Pittsburgh, Pa.....	1465.25
Fall River, Mass.....	1070.82	Reading, Pa.....	864.07
New Bedford, Mass.....	1111.77	Scranton, Pa.....	1060.46
New Haven, Conn.....	1164.65	Camden, N.J.....	793.87
New York, N.Y.....	1565.10	Jersey City, N.J.....	1223.10
Providence, R.I.....	1712.80	Newark, N.J.....	1116.40
Rochester, N.Y.....	1170.24	Paterson, N.J.....	876.87
Springfield, Mass.....	1640.30	Trenton, N.J.....	825.39
<u>Median.....</u>	<u>1170.24</u>	<u>Median.....</u>	<u>1060.46</u>

T A B L E XVII. (continued)

PER CAPITA ASSESSED VALUATION.

Middle Southern Cities.

Montgomery, Ala.....	997.71	Austin, Texas.....	975.63
Portsmouth, Va.....	693.21	Covington, Texas.....	759.73
Roanoke, Va.....	1565.98	Lexington, Ky.....	991.48
Winston-Salem, N.C.....	1172.50	Mobile, Ala.....	976.38
		Savannah, Ga.....	1224.43
		Wheeling, W. Va.....	1689.18
<u>Median</u> .....	1085.10	<u>Median</u> .....	976.00

Large Southern Cities.

Birmingham, Ala.....	1014.94	Atlanta, Ga.....	1484.51
Houston, Texas.....	1772.47	Fort Worth, Texas.....	1232.42
Nashville, Tenn.....	790.92	Louisville, Ky.....	1184.11
Richmond, Va.....	1521.48	New Orleans, La.....	1166.51
Washington, D.C.....	2277.66	San Antonio, Texas.....	1196.88
<u>Median</u> .....	1521.48	<u>Median</u> .....	1196.88

Middle Great Lakes Cities

Kenosha, Wis.....	1085.77	Aurora, Ill.....	1205.82
Racine, Wis.....	1308.46	Battle Creek, Mich.....	1629.88
Saginaw, Mich.....	877.04	Danville, Ill.....	1278.55
		Decatur, Ill.....	1024.85
		Flint, Mich.....	797.03
		Highland Park, Mich.....	3166.65
		Joliet, Ill.....	985.80
		Peoria, Ill.....	1549.38
		Quincy, Ill.....	1368.96
		Springfield, Ill.....	1363.93
		East Chicago, Ind.....	2196.39
		Gary, Ind.....	1541.42
		Jackson, Mich.....	958.44
		Kalamazoo, Mich.....	1093.52
		South Bend, Ind.....	1283.90
		Springfield, Ohio.....	1267.42
		Terre Haute, Ind.....	1052.10
<u>Median</u> .....	1085.77	<u>Median</u> .....	1278.55

Large Great Lake Cities

Detroit, Mich.....	1459.83	Akron, Ohio.....	1367.41
Grand Rapids, Mich.....	1340.06	Chicago, Ill.....	1657.98
		Cincinnati, Ohio.....	1771.77
		Cleveland, Ohio.....	1700.59
		Dayton, Ohio.....	1371.38
		Indianapolis, Ind.....	1520.55
		Milwaukee, Wis.....	1397.26
<u>Median</u> .....	1399.94	<u>Median</u> .....	1520.55

T A B L E XVII. (continued)

PER CAPITA ASSESSED VALUATION.

Large Great Plains Cities.

Minneapolis, Minn.....	1839.37	Duluth, Minn.....	2228.69
St. Paul, Minn.....	1802.52	Kansas City, Kans....	1002.31
		Kansas City, Mo.....	1625.15
		Omaha, Neb.....	1628.40
		St. Louis, Mo.....	1497.85
<u>Median</u> .....	1820.62	<u>Median</u> .....	1625.15

Middle Western Cities.

Berkeley, Calif.....	1296.19	Colorado Springs, Col.	1251.33
		Pasadena, Cal.....	2147.11
		San Diego, Cal.....	1385.05
		Tacoma, Wash.....	1277.86
<u>Median</u> .....	1296.16	<u>Median</u> .....	1264.59

Large Western Cities.

Denver, Colo.....	1394.27
Oakland, Cal.....	1456.34
Los Angeles, Cal.....	1844.82
Salt Lake City, Utah..	1696.71
San Francisco, Cal....	2253.69
Seattle, Wash.....	1630.88
Spokane, Wash.....	1472.05
<u>Median</u> .....	1630.88

Median for All Groups	<u>1186.65</u>	Median for All Groups	<u>1226.68</u>
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T A B L E XVIII

MEDIAN PER CAPITA MUNICIPAL GOVERNMENTAL-COST PAYMENTS  
FOR EXPENSES OF GENERAL DEPARTMENTS AND PER  
CAPITA SCHOOL-COST PAYMENTS.

44 DEPENDENT CITIES : 81 INDEPENDENT CITIES.

<u>Dependent Cities</u>	<u>Total City Gov't Costs</u>	<u>School Costs</u>	<u>Independent Cities</u>	<u>Total School Gov. Costs</u>	<u>School Costs</u>
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Middle Eastern Cities

Brockton, Mass.	\$ 21.54	\$7.90	Allentown, Pa.	\$11.51	\$5.74
Brookline, Mass.	38.61	9.40	Altoona, Pa.	11.43	5.93
Elmira, N. Y.	15.80	6.21	Amsterdam, N. Y.	13.20	4.21
Everett, Mass.	18.80	7.14	Bayonne, N. J.	20.95	8.91
Holyoke, Mass.	22.17	7.26	Easton, Pa.	12.33	5.82
Jamestown, N. Y.	17.29	6.42	E. Orange, N. J.	19.36	8.43
New Britton, Conn.	16.28	7.06	Elizabeth, N. J.	13.52	5.13
Newport, R. I.	24.99	6.72	Harrisburg, Pa.	15.26	6.49
Newton, Mass.	32.58	11.26	Norristown, Pa.	6.21	3.71
Pawtucket, R. I.	16.47	6.44	Passaic, N. J.	14.54	6.99
Pittsfield, Mass.	18.37	7.26	Perth Amboy, N. J.	14.94	6.64
Portland, Me.	20.71	6.17			
Poughkeepsie, N. Y.	16.32	7.32			
Schenectady, N. Y.	19.70	7.83			
Summerville, Mass.	18.90	6.45			
Stamford, Conn.	23.78	8.58			
Waterbury, Conn.	19.69	8.02			
Woonsocket, R. I.	14.39	4.19			
<u>Median</u> -----	19.29	7.20	<u>Median</u> -----	13.52	5.93

Large Eastern Cities

Baltimore, Md.	15.95	3.74	Boston, Mass.	35.06	9.11
Buffalo, N. Y.	31.25	7.62	Pittsburg, Pa.	29.62	8.14
Fall River, Mass.	18.58	6.43	Reading, Pa.	10.33	4.21
New Bedford, Mass.	21.85	5.97	Scranton, Pa.	14.70	6.08
New Haven, Conn.	18.32	7.37	Camden, N. J.	15.56	6.06
New York, N. Y.	28.34	8.19	Jersey City, N. J.	27.04	7.50
Providence, R. I.	21.61	4.87	Newark, N. J.	29.60	8.72
Rochester, N. Y.	23.66	7.25	Paterson, N. J.	15.49	5.81
Springfield, Mass.	26.79	9.85	Trenton, N. J.	16.21	6.60
<u>Median</u> -----	21.85	7.25	<u>Median</u> -----	16.21	6.60

T A B L E XVIII (Continued)

MEDIAN PER CAPITA MUNICIPAL GOVERNMENTAL-COST PAYMENTS  
FOR EXPENSES OF GENERAL DEPARTMENTS AND PER  
CAPITA SCHOOL-COST PAYMENTS.

44 DEPENDENT CITIES : 81 INDEPENDENT CITIES.

<u>Dependent Cities</u>	<u>Total City School Gov't Costs</u>	<u>Costs</u>	<u>Independent Cities</u>	<u>Total Gov. Costs</u>	<u>School Costs</u>
<u>Middle Southern Cities</u>					
Montgomery, Ala.	13.41	3.44	Austin, Tex.	13.67	4.93
Portsmouth, Va.	9.10	2.93	Covington, Ky.	11.53	3.51
Roanoke, Va.	10.26	3.65	Lexington, Ky.	14.29	4.78
Winston-Salem, N.C.	9.73	2.87	Mobile, Ala.	9.44	2.64
			Savannah, Ga.	14.02	3.26
			Wheeling, W.Va.	15.91	7.40
<u>Median</u> -----	9.94	3.18	<u>Median</u> -----	13.84	4.14
<u>Large Southern Cities</u>					
Birmingham, Ala.	9.77	3.94	Atlanta, Ga.	14.84	4.28
Houston, Tex.	14.63	5.21	Ft. Worth, Tex.	10.83	3.88
Nashville, Tenn.	13.21	3.81	Louisville, Ky.	16.53	4.86
Richmond, Va.	15.41	5.17	New Orleans, La.	13.79	3.12
Washington, D.C.	28.92	8.72	San Antonio, Tex.	15.05	4.84
<u>Median</u> -----	14.63	5.17	<u>Median</u> -----	14.84	4.28
<u>Middle Great Lakes Cities</u>					
Kenosha, Wisc.	14.97	7.32	Aurora, Ill.	13.60	6.17
Racine, Wisc.	14.63	6.45	Battle Creek, Mich.	18.43	9.59
Saginaw, Mich.	15.20	6.62	Danville, Ill.	10.75	5.37
			Decatur, Ill.	11.89	5.56
			Flint, Mich.	12.09	4.99
			Highland Park, Mich.	24.92	13.66
			Joliet, Ill.	14.70	7.03
			Peoria, Ill.	16.97	6.56
			Quincy, Ill.	13.33	6.25
			Springfield, Ill.	15.66	7.29
			E. Chicago, Ind.	15.18	6.13
			Gary, Ind.	17.90	7.74
			Jackson, Mich.	15.92	5.17
			Kalamazoo, Mich.	13.15	6.55
			So. Bend, Ind.	13.99	7.50
			Springfield, O.	12.75	5.40
			Terre Haute, Ind.	15.00	4.34
<u>Median</u> -----	14.97	6.62	<u>Medians</u> -----	14.70	6.55

T A B L E XVIII (Continued)

MEDIAN PER CAPITA MUNICIPAL GOVERNMENTAL-COST PAYMENTS  
FOR EXPENSES OF GENERAL DEPARTMENTS AND PER  
CAPITA SCHOOL-COST PAYMENTS.

44 DEPENDENT CITIES : 81 INDEPENDENT CITIES

<u>Dependent Cities</u>	<u>Total City Gov't Costs</u>	<u>School Costs</u>	<u>Independent Cities</u>	<u>Total Gov. Costs</u>	<u>School Costs</u>
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Large Great Lakes Cities

Detroit, Mich.	21.13	6.58	Akron, O.	11.39	5.25
Grand Rapids, Mich.	17.95	8.61	Chicago, Ill.	22.52	6.57
			Cincinnati, O.	25.04	7.78
			Cleveland, O.	20.96	7.49
			Dayton, O.	14.34	5.30
			Indianapolis, Ind.	15.63	5.94
			Milwaukee, Wisc.	23.88	6.40
<u>Median</u> -----	19.49	7.59	<u>Median</u>	20.96	6.40

Middle Great Plains Cities

			Cedar Rapids, Ia.	16.04	9.27
			Davenport, Ia.	17.62	3.33
			Dubuque, Ia.	12.75	5.40
			Lincoln, Nebr.	15.85	8.74
			Topeka, Kans.	14.60	7.41
			Waterloo, Ia.	13.54	7.32
			Muskogee, Okla.	13.19	5.88
			Oklahoma City, Okla.	12.77	6.84
			Springfield, Mo.	12.29	5.94
			Tulsa, Okla.	14.80	8.29
			<u>Median</u> -----	14.07	7.08

Large Great Plains Cities.

Minneapolis, Minn.	23.62	8.71	Duluth, Minn.	16.85	7.47
St. Paul, Minn.	20.37	6.22	Kansas City, Kan.	11.76	5.06
			Kansas City, Mo.	24.69	7.73
			Omaha, Nebr.	23.78	8.17
			St. Louis, Mo.	23.37	6.97
<u>Median</u> -----	21.99	7.46	<u>Median</u> -----	23.37	7.47

Middle Western Cities.

Berkeley, Calif.	20.44	10.78	Colorado Springs, Colo.	18.55	9.02
			Passadena, Calif.	26.74	11.51
			San Diego, Calif.	22.99	8.05
			Tacoma, Wash.	17.96	7.23
<u>Median</u> -----	20.44	10.87	<u>Median</u> -----	20.77	8.53

T A B L E XVIII (Continued)

MEDIAN PER CAPITA MUNICIPAL GOVERNMENTAL-COST PAYMENTS  
FOR EXPENSES OF GENERAL DEPARTMENTS AND PER  
CAPITA SCHOOL-COST PAYMENTS.

44 DEPENDENT CITIES : 81 INDEPENDENT CITIES.

<u>Dependent Cities</u>	<u>Total City Gov't Costs</u>	<u>School Costs</u>	<u>Independent Cities</u>	<u>Total Gov. Costs</u>	<u>School Costs</u>
<u>Large Western Cities.</u>					
			Denver, Colo.	21.99	7.65
			Oakland, Calif.	19.89	9.47
			Los Angeles, Calif.	22.62	10.88
			Salt Lake City, Ut.	19.92	9.78
			San Francisco, Cal.	24.30	5.35
			Seattle, Wash.	26.44	8.05
			Spokane, Wash.	19.89	8.96
			<u>Medians</u> -----	21.99	8.96
Median for All Groups	18.69	6.62	Median for All Groups	15.26	6.56

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Financial Statistics of Cities Having a Population of  
Over 30,000 - 1919 - Department of Commerce. pp.204-209.

T A B L E XIX A.

PERCENTILE DISTRIBUTION OF THE EXPENSES OF MUNICIPAL GENERAL DEPARTMENTS, BY PRINCIPAL DIVISIONS OF THE GENERAL DEPARTMENTAL SERVICE.

44 Dependent Cities.

	Gen'l Gov't	Pro- tection	Health & San.	High- ways	Chari- ties	Library & Rec.	Sch ools
Brockton, Mass.	# 12.1	% 18.8	% 14.1	% 11.4	5.7	3.2	36.7
Brookline, Mass.	10.6	20.0	14.3	15.7	13.3	1.9	23.3
Elmira, N.Y.	16.6	17.6	7.7	11.3	5.7	1.8	39.3
Everett, Mass.	16.2	16.6	8.3	9.4	3.8	4.4	38.0
Holyoke, Mass.	6.9	23.2	13.5	8.8	7.2	4.0	32.8
Jamestown, Mass.	11.4	18.4	8.1	10.3	14.6	1.4	37.1
New Britain, C.	9.0	19.7	9.9	9.9	5.4	2.8	43.4
Newport, R.I.	12.2	23.9	15.3	14.1	4.9	3.0	26.9
Newton, Mass.	14.4	16.0	10.7	15.5	2.1	8.5	34.6
Pawtucket, R.I.	11.0	19.7	6.9	16.1	3.8	3.8	39.1
Pittsfield, Me.	11.4	17.3	9.8	14.7	3.8	3.6	39.5
Portland, Me.	10.2	23.2	7.6	17.9	8.0	3.3	29.8
Poughkeepsie	9.7	12.4	21.4	11.6	4.3	5.9	32.6
Schenectady, N.Y.	11.2	18.2	17.4	6.3	5.0	1.3	39.7
Sommerville, Me.	13.1	17.4	14.5	11.7	3.6	5.6	34.1
Stamford, Conn.	11.1	17.0	10.8	15.6	4.9	4.6	36.1
Waterbury, Conn.	11.0	19.3	8.8	12.6	4.8	3.0	40.7
Woonsocket, R.I.	7.5	33.8	5.9	17.9	3.2	1.1	29.1
MEDIAN.....	11.1	18.6	12.1	12.1	4.9	3.2	36.4

Large Eastern Dependent Cities.

Baltimore, Md.	11.8	22.3	13.5	14.8	8.6	5.5	23.4
Buffalo, N.Y.	14.6	23.1	12.0	13.1	8.9	6.1	24.4
Fall River, Me.	8.0	21.3	17.1	11.7	9.4	3.3	34.6
New Bedford, Me.	13.1	21.0	15.0	12.3	7.0	4.1	27.3
New Haven, Conn.	9.1	21.1	7.9	9.2	4.7	5.6	40.3
New York, N.Y.	19.8	20.4	10.1	7.8	9.6	3.3	28.9
Providence, R.I.	9.8	24.0	12.9	14.8	4.6	3.7	29.3
Rochester, N.Y.	12.7	19.9	13.9	11.7	6.8	5.1	30.6
Springfield, Me.	10.6	19.3	12.1	12.8	2.9	6.4	36.8
MEDIAN.....	11.8	21.1	12.9	12.3	7.0	5.1	29.3

Middle Southern Depndent Cities.

Montgomery, Ala.	9.3	28.5	23.3	9.4	2.	1.9	25.6
Portsmouth, Va	12.5	24.3	18.5	8.4	3.8	.4	32.2
Roanoke, Va.	16.4	24.7	8.9	10.1	3.5	1.2	35.6
Winston-Salem, N.C.	6.4	19.2	20.5	10.5	12.	1.9	29.6
MEDIAN.....	10.9	24.5	19.5	9.7	2.7	1.5	30.9



T A B L E XIX A.(Continued)

PERCENTILE DISTRIBUTION OF THE EXPENSES OF MUNICIPAL GENERAL DEPARTMENTS, BY PRINCIPAL DIVISIONS OF THE GENERAL DEPARTMENTAL SERVICE.

44 Dependent Cities.

Large Southern Dependent Cities.

	Gen'l Gov't %	Protec- tion %	Health & San %	High- ways %	Chari- ties %	Library & Rec. %	Sch- ools %
Birmingham, Ala.	8.5	23.3	13.	7.3	1.6	4.9	40.3
Houston, Tex.	11.4	24.7	11.6	11.5	3.4	1.8	35.6
Nashville, Tenn.	7.6	25.1	11.3	13.7	6.1	7.4	28.8
Richmond, Va.	10.9	24.5	13.9	7.7	7.1	2.5	33.4
Washington, D.C.	9.7	19.3	12.2	11.3	14.4	5.8	27.2
MEDIAN.....	9.7	24.5	12.2	11.3	6.1	4.9	33.4

Middle Great Lakes Dependent Cities

Kenosha, Wis	7.5	17.4	8.7	8.8	3.5	5.4	48.9
Racine, Wis.	6.7	16.1	9.1	14.1	2.4	7.3	44.1
Saginaw, Mich.	10.4	18.4	7.8	15.4	1.5	2.9	43.5
MEDIAN.....	7.5	17.4	8.7	14.1	2.4	5.4	44.1

Large Great Lakes Dependent Cities

Detroit, Mich.	13.8	22.4	12.4	7.2	6.5	6.6	31.2
Grand Rapids, Mi.	8.0	19.9	7.9	6.9	3.0	6.3	48.0
MEDIAN.....	10.9	21.1	10.1	7.0	4.7	6.4	39.6

Large Great Plains Dependent Cities.

Minneapolis, Minn	12.6	18.0	7.6	11.2	7.1	6.6	36.9
St. Paul, Minn.	9.6	22.3	8.5	15.5	4.3	7.3	30.5
MEDIAN.....	11.1	20.1	8.0	12.3	5.7	6.9	33.7

Middle Western Dependent Cities.

Berkeley, Calif..	7.8	17.3	6.2	19.4	1.3	5.4	52.7
MEDIAN.....	7.8	17.3	6.2	19.4	1.3	5.4	52.7

T A B L E XIX B.

PERCENTILE DISTRIBUTION OF THE EXPENSES OF MUNICIPAL GENERAL DEPARTMENTS, BY PRINCIPAL DIVISIONS OF THE GENERAL DEPARTMENTAL SERVICE.

81 Independent Cities

	Gen'l Gov't %	Protec- tion %	Health & San. %	High- ways %	Chari- ties %	Library & Rec. %	Schools %
Allentown, Pa.	10.3	18.1	9.5	10.3	.2	2.7	49.9
Altoona, Pa.	9.8	20.6	9.4	7.8	.5	.7	51.9
Amsterdam, N.Y.	12.7	17.8	16.4	12.6	6.9	1.3	31.9
Bayonne, N.J.	10.1	22.	10.4	10.8	1.6	2.3	42.9
Easton, Pa.	10.3	17.2	11.7	11.4		3.5	47.2
E. Orange, N.J.	8.	18.1	13.5	10.2	2.1	4.6	43.5
Elizabeth, N.J.	9.	26.	8.	11.7	3.3	3.8	38.
Harrisburg, Pa.	7.	14.4	15.1	14.3	.3	4.4	42.5
Morristown, N.J.	9.9	14.8	3.7	9.3		2.4	59.7
Passaic, N.J.	8.3	19.8	12.	5.6	3.2	4.	48.1
Perth Amboy, N.J.	7.	18.6	10.	8.5	2.4	2.8	44.4
MEDIAN.....	9.8	18.1	10.4	10.3	2.1	2.8	44.4

Large Eastern Independent Cities

Boston, Mass.	17.3	20.	11.6	8.1	9.4	7.8	26.
Pittsburg, Pa.	18.8	17.8	10.9	12.3	8.2	4.8	27.3
Reading, Pa.	9.7	19.1	12.4	13.		5.1	40.8
Scranton, Pa.	10.1	24.	8.9	12.7		2.9	41.4
Camden, N.J.	10.4	27.5	9.4	9.7	2.1	2.3	39.
Jersey City, N.J.	17.3	24.5	10.5	7.8	8.9	3.3	27.7
Newark, N.J.	12.3	21.3	11.8	7.4	13.5	4.5	29.4
Patterson, N.J.	7.9	26.	10.7	7.2	5.9	4.7	37.5
Trenton, N.J.	7.7	24.6	12.8	7.7	2.4	4.	40.7
MEDIAN.....	10.4	23.0	10.9	8.1	8.2	4.5	37.5

Middle Southern Independent Cities

Austin, Tex.	11.6	17.1	8.3	17.	8.	1.9	36.1
Covington, Ky.	11.9	23.4	10.7	13.2	2.7	3.6	30.4
Lexington, Ky.	9.3	26.9	8.6	12.1	6.	3.7	33.4
Mobile, Ala.	12.4	28.9	7.6	18.2	3.2	1.7	28.
Savannah, Ga.	9.4	28.2	22.3	9.4	3.2	5.3	23.3
Wheeling, W. Va.	10.6	24.8	9.9	8.3	.5	1.5	46.5
MEDIAN.....	11.1	25.0	9.2	14.5	3.2	2.7	31.9

T A B L E. XIX B (Continued)

PERCENTILE DISTRIBUTION OF THE EXPENSES OF MUNICIPAL GENERAL DEPARTMENTS, BY PRINCIPAL DIVISIONS OF THE GENERAL DEPARTMENTAL SERVICE.

81 Independent Cities.

Middle Great Lakes Independent Cities.

	Gen'l Gov't %	Protec- tion %	Health & San. %	High- ways %	Chari- ties %	Library & Rec. %	Sch- ools %
Aurora, Ill.	9.4	19.6	8.1	13.4	.1	4.2	45.3
Battle Creek, M.	8.9	19.6	6.4	9.3	.7	3.3	52.1
Danville, Ill.	12.2	23.2	4.3	6.6	.2	4.5	50.
Decatur, Ill.	8.3	19.4	5.7	11.5		8.1	46.8
Flint, Mich.	9.9	16.6	8.2	10.6	9.8	2.5	41.3
Highland Pk. Mi.	10.5	13.7	9.2	10.6	.5	.7	54.8
Joliet, Ill.	12.9	20.7	9.	6.8		.3	47.9
Peoria, Ill.	11.	23.5	9.5	8.5	2.8	7.7	38.7
Quincy, Ill.	9.2	21.3	5.6	10.4	5.3	3.	46.9
Springfield, Ill.	12.2	18.9	8.4	5.2	.3	8.5	46.5
E. Chicago, Ind.	8.9	23.8	15.3	7.9	.1	3.6	40.4
Gary, Ind.	8.3	26.	9.6	6.8	.1	5.3	43.4
Jackson, Mich.	9.6	17.	7.1	9.8	14.6	6.5	32.5
Kalamazoo, Mich.	7.5	20.6	7.1	10.3	1.3	3.4	49.8
So. Bend, Ind.	5.6	20.7	6.3	8.2	.1	5.3	53.6
Springfield, Ohio	11.3	16.5	6.7	8.9	4.2	2.7	42.3
Terre Haute, Ind.	6.	28.	4.6	8.1	.9	3.5	48.9
MEDIAN.....	9.4	20.6	7.1	8.9	.7	3.6	46.5

Large Great Lakes Independent Cities

Akron, Ohio	10.3	17.2	13.0	10.7	1.5	1.2	46.1
Chicago, Ill.	17.4	22.0	11.5	6.6	6.4	6.9	29.2
Cincinnati, O.	19.0	20.5	7.7	10.8	8.5	2.6	31.0
Cleveland, Ohio	14.0	15.8	12.5	10.2	6.8	5.1	35.7
Dayton, Ohio	13.1	20.8	10.5	9.1	5.0	4.6	37.0
Indianapolis	5.9	30.9	9.2	9.1	4.5	6.4	38.0
Milwaukee, Wis.	12.2	17.7	15.2	12.4	9.8	5.6	26.8
Median.....	13.1	20.5	11.5	10.2	6.4	5.1	35.7

Middle Great Plains Independent Cities.

Cedar Rapids, I	5.8	15.0	5.2	10.6	1.0	5.4	57.8
Davenport, Iowa	10.0	15.4	7.6	7.8		6.8	47.4
Dubuque, Iowa	9.6	22.1	8.1	19.2	.4	4.9	35.8
Lincoln, Neb.	8.4	12.0	6.7	13.3	.6	3.9	55.2
Topeka, Neb.	6.3	18.9	8.0	8.1	1.5	6.4	50.8
Waterloo, Iowa	11.0	15.9	5.6	10.1		6.3	54.1
Muskogee, Okla.	12.1	19.3	4.0	10.2	5.5	4.2	44.6
Oklahoma City, O	9.1	17.8	8.7	5.8	1.6	3.5	53.5
Springfield, Mo.	9.4	24.0	4.1	7.2	3.4	3.5	48.3
Tulsa, Okla.	10.6	16.9	9.2	4.6	1.6	3.1	56.0
MEDIAN.....	9.5	17.3	7.1	8.6	1.5	4.5	52.1

T A B L E X I X B. (Continued).

PERCENTILE DISTRIBUTION OF THE EXPENSES OF MUNICIPAL GENERAL DEPARTMENTS, BY PRINCIPAL DIVISIONS OF THE GENERAL DEPARTMENTAL SERVICE.

81 Independent Cities

Large Great Plains Independent Cities.

	Gen'l Gov't %	Protec- tion %	Health & San. %	High- ways %	Chari- ties %	Library & Rec. %	Schools %
Duluth, Minn.	12.1	20.4	6.7	11.5	.5	4.7	44.3
Kansas C., Kans.	9.1	23.1	4.2	15.8	1.0	3.8	43.0
Kansas City, Mo.	18.7	17.9	6.1	11.0	10.1	4.8	31.4
Omaha, Neb.	9.8	26.1	7.4	10.3	.1	4.6	41.7
St. Louis, Mo.	13.1	23.3	9.1	10.3	8.5	5.9	29.8
MEDIAN.....	12.1	23.1	6.7	11.0	1.0	4.7	41.7

Middle Western Independent Cities.

Colorado Sp.	7.8	18.1	6.0	11.5	.2	7.6	48.6
Pasadena, Cal.	12.3	13.1	8.7	9.8	2.6	10.7	43.0
Santiago, Cal.	12.0	20.3	7.7	11.3		13.6	35.0
Tacoma, Wash.	8.9	20.5	8.3	12.3	1.5	8.1	40.3
MEDIAN.....	10.4	19.2	8.0	11.4	1.8	9.4	41.1

Large Western Independent Cities.

Denver, Colo.	18.3	14.9	5.6	11.4	5.9	9.4	34.3
Oakland, Cal.	8.4	20.7	7.0	7.7	1.0	7.6	47.6
Los Angeles, Cal.	13.4	16.5	5.9	13.0	6.5	4.0	40.9
Salt Lake City, U	11.6	13.3	9.4	9.2	1.2	6.1	49.1
San Francisco	17.3	28.8	9.7	7.0	10.1	5.1	22.0
Seattle, Wash.	17.2	21.4	11.2	9.9	5.5	4.4	30.5
Spokane, Wash.	7.8	18.6	9.7	11.1	1.9	5.8	45.1
MEDIAN.....	13.4	19.6	9.4	9.9	5.5	5.8	40.9

T A B L E X X A.

ANALYSIS OF THE CURRENT EXPENSES PER STUDENT IN AVERAGE DAILY ATTENDANCE.

21 Dependent Cities

Middle Eastern Dependent Cities

	Total Curr. Exp.	Cost of Gen. Cont.	Cost of In's'n	Cost of Oper. Plant	Cost of Main.	Auxi- liary Agt.	Fixed Chgs & Inter. Indtd.
Brooklin, Mass \$	85.97	2.92	62.60	13.22	5.08	1.35	.70
Newport, R. I.	54.89	1.65	39.59	6.54	6.21	.90	.
Pawtucket, R. I.	54.28	2.10	37.47	8.84	5.45	.14	.28
MEDIAN.....	54.89	2.10	39.59	8.84	5.45	.90	.49

Large Eastern Dependent Cities

Baltimore, Md.	38.28	1.09	31.51	4.86	.62	.01	.19
Buffalo, N. Y.	67-59	2.60	43.47	8.85	3.25	1.44	7.98
Fall River, Mass	52.28	1.65	39.40	7.67	3.02	.54	.79
New Haven, Conn.	43.63	1.14	33.09	5.86	2.27	.17	1.11
New York, N. Y.	59.07	2.34	49.71	4.13	1.72	1.09	.08
Providence, R. I.	54.33	1.67	35.80	7.71	3.41	.88	4.75
Rochester, N. Y.	60.25	2.05	44.02	7.28	1.19	2.03	3.68
MEDIAN.....	54.33	1.67	39.40	7.28	2.27	.88	1.11

Middle Southern Dependent Cities

Montgomery, Ala.	26.81	1.52	20.13	2.78	1.73	.17	.48
Roanoke, Va.	24.34	.81	20.43	1.21	.33	.06	.14
MEDIAN.....	25.57	1.16	20.28	1.99	1.03	.11	.31

Large Southern Dependent Cities

Birmingham, Ala.	32.15	.67	23.68	3.24	1.96		3.60
Nashville, Tenn.	34.13	1.18	26.25	3.75	1.51	.48	.96
Richmond, Va.	41.88	1.03	33.81	4.62	1.30	.73	.29
Washington, D. C.	59.83	.94	47.19	6.80	3.47	1.13	.30
MEDIAN.....	38.00	.98	30.03	4.18	1.73	.73	.63

Large Great Lakes Dependent Cities

Detroit, Mich.	52.26	1.60	41.77	7.69	1.00	.12	.08
Grand Rapids, M	69.59	2.43	50.27	9.40	2.60	.73	4.16
MEDIAN.....	60.92	2.01	46.02	8.54	1.80	.42	2.12

T A B L E X X A. (Continued)

ANALYSIS OF THE CURRENT EXPENSES PER STUDENT IN AVERAGE DAILY ATTENDANCE.

21 Dependent Cities

Large Great Plains Dependent Cities

	Total Cost Curr. Exp.	Cost Gen Cont.	Cost of Insn.	Cost Oper Plant	Cost of Main.	Auxi- liary Agt.	Fixed Chdgs & Int. Indtd.
Minneapolis, M.	61.80	2.02	45.91	8.19	3.28	.82	1.58
St. Paul, Minn.	55.95	1.79	38.86	7.08	4.03	1.21	2.98
MEDIAN.....	58.87	1.90	42/30	7.63	3.15	1.01	1.78

Middle Western Dependent Cities

Berkeley, Cal.	72.79	1.57	59.37	6.90	3.57	1.32	.06
MEDIAN.....	72.79	1.57	59.37	6.90	3.57	1.32	.06
MEDIAN FOR ALL GROUPS.	54.50	1.70	39.20	6.80	2.70	.70	.40

(1). Medians Computed From Data Taken From Statistics of City School Systems. Department of Education, Bulletin, No.24, 1920, pp. 136-137.

T A B L E X X B.

Analysis of the Current Expenses per Student in Average Daily Attendance.

48 Independent Cities.

Middle Eastern Independent Cities

	Total Curr. Exp.	Cost Gen. Cont.	Cost of Insn.	Cost Oper. Plant	Cost of Main.	Auxili- ary Agt.	Fixed Chdgs & Int. Indtd
Altonna, Penn.	43.90	1.91	29.65	7.00	3.06	.40	1.88
Bayonne, N.J.	68.73	2.90	48.70	6.51	1.84	.97	7.81
Elizabeth, N.J.	50.56	1.36	33.43	6.17	3.17	.51	5.92
MEDIAN.....	50.56	1.91	33.43	6.51	3.06	.51	5.92

Large Eastern Independent Cities

Boston, Mass.	66.94	3.03	45.37	6.45	3.04	1.68	7.37
Pittsburgh, Pa.	71.37	3.53	43.38	9.71	6.18	.77	7.80
Stanton, Pa.	47.64	2.11	31.17	5.50	3.58	.57	4.71
Jersey City, N.J.	59.11	1.69	46.50	7.56	1.78	1.07	.51
Newark, N.J.	64.21	2.57	45.18	5.67	2.14	1.86	6.79
MEDIAN.....	64.21	2.11	45.18	6.45	3.04	1.07	6.79

Middle Southern Independent Cities

Atlanta, Ga.	31.45	.90	26.53	2.24	1.15		.63
Fort Worth, Tex.	42.80	2.36	31.06	3.17	.55	.09	5.57
Louisville, Ky.	45.15	2.21	34.12	6.21	2.25	.12	.24
New Orleans, La	40.63	3.19	33.15	3.18	.90		.21
MEDIAN.....	41.71	2.28	32.10	3.17	1.02	.10	.43

Middle Great Lakes Independent Cities

Battle Creek, M.	50.93	2.27	34.02	9.88	1.91	2.06	.79
Flint, Mich.	33.00	2.66	21.77	4.70	1.20	2.00	4.82
Decatur, Ill.	46.06	2.45	29.29	5.83	3.31	.36	4.82
Peoria, Ill.	54.74	1.78	37.19	9.31	2.45	.50	3.51
Springfield, Ill	59.66	2.88	39.75	8.50	3.05	.81	5.27
Terre Haute, Ind	50.21	1.45	38.18	5.97	2.00	2.02	.59
MEDIAN,.....	50.57	2.27	35.60	7.23	2.22	1.40	2.15

Large Great Lakes Independent Cities

Akron, Ohio	41.64	3.34	27.57	5.53	2.58	.03	5.59
Chicago, Ill.	52.67	2.10	38.71	7.99	2.48	.60	.79
Cincinnati, O.	70.46	1.97	49.61	8.17	3.61	.57	6.63
Cleveland, Ohio	66.42	5.94	41.51	8.05	3.72	1.32	5.88
Indianapolis, Ind	52.96	2.70	39.53	7.01	2.99	6.18	4.55
Milwaukee, Wis	60.58	1.60	40.64	7.76	4.91	1.24	4.43
MEDIAN.....	56.77	2.03	40.08	7.88	3.30	.96	5.07

T A B L E XX B. (Continued)

ANALYSIS OF THE CURRENT EXPENSES PER STUDENT IN AVERAGE DAILY ATTENDANCE.

48 Independent Cities

Middle Great Plains Independent Cities

	Total Curr. Exp.	Cost Gen. Cont.	Cost of Insn.	Cost Oper. Plant	Cost of Main.	Auxili- ary Agt.	Fixed Chdgs & Int. Indt
Cedar Rapids, I.	55.53	1.88	38.45	9.63	1.61	.08	3.88
Topeka, Kans.	63.89	1.71	40.92	7.91	8.50	.53	4.32
Muskogee, Okla.	46.76	2.51	28.61	3.51	1.16	.82	9.15
Oklahoma City, O	43.97	1.27	28.79	4.75	1.21	.31	7.64
Springfield, Mo.	32.99	1.36	23.64	5.18	2.37	.31	.13
MEDIAN.....	46.76	1.71	28.79	5.18	1.61	.31	4.32

Large Great Plains Independent Cities.

Duluth, Minn.	58.25	1.88	39.07	8.51	1.62	1.10	6.07
Kansas City, Kan.	46.55	2.18	27.07	6.97	3.99	1.98	4.16
Kansas City, Mo.	69.94	2.97	43.07	8.53	2.59	3.83	8.95
Omaha, Neb.	65.78	2.43	44.19	8.46	1.85	.89	7.96
St. Louis, Mo.	57.66	2.20	42.17	7.20	4.09	1.27	.73
MEDIAN.....	58.25	2.20	42.17	8.46	2.59	1.27	6.07

Middle Western Independent Cities.

Colorado S, Col.	63.88	3.91	46.18	6.15	1.30	.96	5.38
Pasadena, Cal.	103.28	2.35	75.05	10.28	7.02	1.86	6.72
Tacoma, Wash.	59.90	2.70	41.99	6.49	3.11	1.47	4.14
MEDIAN.....	63.88	2.70	46.18	6.49	3.11	1.47	5.38

Large Western Independent Cities

Denver, Colo.	60.11	3.07	46.72	6.18	1.08	.37	1.14
Oakland, Cal.	63.09	2.09	51.51	5.38	1.42	1.75	.94
Los Angeles, C.	77.21	2.03	61.31	6.23	1.86	1.58	3.20
Salt Lake C, U.	59.91	1.74	42.84	5.57	5.61	.10	4.05
San Francisco, C.	58.40	1.78	42.72	4.45	2.69	.84	5.92
Seattle, Wash.	79.32	2.49	52.45	8.25	3.42	4.22	8.49
Spokane, Wash.	69.04	1.78	47.79	7.95	2.80	.90	7.82
MEDIAN.....	63.09	2.03	47.79	6.18	2.69	.90	4.05

MEDIAN FOR ALL GROUPS:	55.00	2.10	39.60	6.60	2.40	.80	4.50
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(1). Medians Computed from Data Taken From Statistics of City School Systems, Department of Education, Bulletin, No. 24 1920, pp. 136-137.



T A B L E X X I

TABLE SHOWING PERCENTAGE OF PUPILS IN PUBLIC SCHOOLS  
THAT IS FOUND IN HIGH SCHOOL.

44 Dependent Cities:

79 Independent Cities

Middle Eastern Cities

	<u>Percentage of Pupils in High School</u>		<u>Percentage of Pupils in High School</u>
Brockton	16	Allentown	9.4
Brockline	16.8	Altoona	16.5
Elmira	18.4	Amsterdam	9.9
Everett	12.4	Bayonne	9.2
Holyoke	11.2	Easton	20.
Jamestown	15.	East Orange	17.
New Britain	12.5	Elizabeth	10.7
Newport	12.7	Harrisburg	14.1
Newton	19.5	Norristown	11.7
Pawtucket	8.7	Passiac	7.3
Pittsfield	12.2	Perth Amboy	6.4
Portland	21.2		
Poughkeepsie	16.4		
Schenectady	11.8		
Sommerville	12.5		
Stanford	12.4		
Waterbury	10.2		
Woonsocket	7.3		
MEDIAN.....	12.5	MEDIAN.....	11.7

Large Eastern Cities

Baltimore	6.9	Boston	13.1
Buffalo	8.	Pittsburg	11.7
Fall River	8.7	Reading	10.2
New Bedford	6.7	Scranton	9.5
New Haven	13.5	Camden	5.
New York	9.2	Jersey City	9.5
Providence	9.5	Newark	7.4
Rochester	9.1	Paterson	8.9
Springfield	10.4	Trenton	15.3
MEDIAN.....	9.1	MEDIAN.....	9.5

Middle Southern Cities.

Montgomery	12.	Austin	29.0
Portsmouth	10.4	Covington	8.5
Roanoke	5.6	Lexington	9.1
Winston-Salem	7.7	Mobile	13.4
		Savannah	10.9
		Wheeling	13.3
MEDIAN.....	9.1	MEDIAN.....	12.1

T A B L E XXI. (Continued)

TABLE SHOWING PERCENTAGE OF PUPILS IN PUBLIC SCHOOLS THAT IS FOUND IN HIGH SCHOOL.

44 Dependent Cities:

79 Independent Cities

Large Southern Cities

	<u>Percentage of Pupils in High School</u>		<u>Percentage of Pupils in High School</u>
Birmingham	12.6	Atlanta	5.2
Houston	12.5	Fort Worth	14.4
Nashville	8.3	Louisville	10.2
Richmond	9.6	New Orleans	5.4
Washington	11.6	San Antonio	13.7
MEDIAN.....	11.6	MEDIAN.....	10.2

Middle Great Lakes Cities

Kenosha	9.	Aurora	20.6
Racine	10.8	Battle Creek	16.3
Saginaw	16.8	Danville	16.7
		Decatur	17.8
		Flint	6.5
		Peoria	11.9
		Quincy	14.4
		Springfield	14.3
		East Chicago	10.9
		Gary	7.6
		Jackson	12.4
		Kalamazoo	12.6
		South Bend	11.6
		Springfield, O.	11.9
		Terre Haute	12.5
MEDIAN.....	10.8	MEDIAN.....	12.5

Large Great Lakes Cities

Detroit, Mich.....	14.	Akron	11.
Grand Rapids	16.	Chicago	9.1
		Cincinnati	8.7
		Cleveland	8.4
		Dayton	17.7
		Indianapolis	13.2
		Milwaukee	10.6
MEDIAN.....	15.	MEDIAN.....	10.6

T A B L E XXI. (Continued)

TABLE SHOWING PERCENTAGE OF PUPILS IN PUBLIC SCHOOLS  
THAT IS FOUND IN HIGH SCHOOL

44 Dependent Cities

79 Independent Cities

Middle Great Plains Cities

Percentage of  
Pupils in  
High School

Percentage of  
Pupils in  
High School

Cedar Rapids	11.2
Davenport	12.9
Lincoln	15.6
Topeka	17.1
Waterloo	15.6
Muskogee	12.2
Oklahoma City	12.6
Springfield, Mo.	15.3
Tulsa, Okla.	10.2

MEDIAN..... 12.9

Large Great Plains Cities

Minneapolis, Minn. 15.  
St. Paul, Minn. 12.8

Duluth	22.5
Kansas City, Kans.	12.1
Kansas City, Mo.	15.7
Omaha	12.8
St. Louis, Mo.	10.

MEDIAN..... 12.8

MEDIAN..... 12.8

Middle Western Cities

Berkeley, Cal. 22.2

Colorado Springs	22.5
Pasadena,	22.9
San Diego	15.8
Tacoma	17.6

MEDIAN..... 22.2

MEDIAN..... 20.0

Large Western Cities

Denver	12.4
Oakland	16.4
Los Angeles	14.6
Salt Lake City	8.2
San Francisco	9.9
Seattle	10.4
Spokane	19.7

MEDIAN..... 16.4

MEDIAN FOR ALL GROUPS 11.7

MEDIAN FOR ALL  
GROUPS: 12.1

T A B L E XXII

MEDIAN QUALIFICATIONS OF ELEMENTARY SCHOOL TEACHERS  
UPON A BASIS OF TRAINING AND EXPERIENCE BY GE-  
OGRAPHICAL AND POPULATION GROUPS

30 Dependent Cities : : 51 Independent Cities.

Middle Eastern Cities.

Dependent Cities	Yrs. of Training Above 8th Grade.	Yrs. of Experience.	Independent Cities	Yrs. of Training Above 8th Grade	Yrs. of Experience.
Brockton, Mass.	-	-	Allentown, Pa.	6.1	-
Brookline, Mass.	6.8	20.0	Altoona, Pa.	5.4	11.0
Elmira, N. Y.	6.4	12.0	Bayonne, N. J.	6.5	5.7
Everett, Mass.	7.2	15.2	Elizabeth, N. J.	6.3	7;5
Holyoke, Mass.	-	12.0	Harrisburg, N. J.	6.2	10.8
Jamestown, Mass.	-	-	Passaic, N. J.	6.4	9.2
New Britain, Conn.	6.5	6.4	Perth Amboy, N. J.	6.3	5.8
Newport, R. I.	-	12.3			
Newton, Mass.	6.5	13.3			
Portland, Maine	6.4	13.0			
Schenectady, N.Y.	6.5	7.6			
Waterbury, Conn.	6.4	8.3			
Woonsocket, R.I.	7.2	10.0			
<u>Median</u> -----	6.5	12.0	<u>Median</u> -----	6.3	8.3

Large Eastern Cities.

Fall River, Mass.	6.3	11.0	Scranton, Pa.	5.8	10.7
New Bedford, Mass.	6.4	11.0	Camden, N. J.	6.3	9.6
Providence, R. I.	7.3	10.2	Jersey City, N. J.	7.4	8.5
Rochester, N. Y.	6.3	10.1	Paterson, N. J.	6.8	8.8
Springfield, Mass.	-	10.4	Newark, N. J.	6.5	11.5
			Trenton, N. J.	5.4	12.6
<u>Median</u> -----	6.3	10.4	<u>Median</u> -----	6.4	10.1

Middle Southern Cities.

Montgomery, Ala.	4.7	5.1	Austin, Tex.	6.1	7.7
Roanoke, Va.	5.7	6.6	Covington, Ky.	6.1	6.7
Winston-Salem, N.C.-	-	8.12	Lexington, Ky.	7.2	9.6
			Mobile, Ala.	4.5	6.8
			Wheeling, Va.	-	9.4
<u>Median</u> -----	5.2	6.6	<u>Median</u> -----	6.1	7.7

Large Southern Cities.

Baltimore, O.	5.4	15.2	Atlanta, Ga.	4.9	8.6
Richmond, Va.	6.3	6.8	Louisville, Ky.	-	5.9
			New Orleans, La.	6.5	9.8
			San Antonio, Tex.	6.9	7.3
<u>Median</u> -----	5.8	11.0	<u>Median</u> -----	6.5	7.9

T A B L E XXII (Continued)

MEDIAN QUALIFICATIONS OF ELEMENTARY SCHOOL TEACHERS  
UPON A BASIS OF TRAINING AND EXPERIENCE BY  
GEOGRAPHICAL AND POPULATION GROUPS

30 Dependent Cities : : 51 Independent Cities

Dependent Cities	Yrs. of Training Above 8th Grade.	Yrs. of Exper- ience.	Independent Cities	Yrs. of Training Above 8th Grade	Yrs. of Exper- ience.
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Middle Great Lakes Cities.

Kenosha, Wis.	6.4	5.2	Aurora, Ill.	6.7	9.7
Racine, Wis.	6.4	9.2	Battle Creek, Mich.	6.4	7.0
Saginaw, Mich.	-	12.2	Decatur, Ill.	6.1	9.0
			Flint, Mich.	6.4	6.1
			Joliet, Ill.	5.9	9.2
			Peoria, Ill.	5.1	10.1
			Quincy, Ill.	6.3	11.7
			Springfield, Ill.	5.6	10.0
			Gary, Ind.	6.7	8.3
			Jackson, Mich.	6.3	9.9
			Kalamazoo, Mich.	6.4	6.1
			South Bend, Ind.	5.6	8.8
			Springfield, O.	4.8	10.8
			Terre Haute, Ind.	8.6	9.6
<u>Median</u> -----	6.4	9.2	<u>Median</u> -----	6.3	9.4

Large Great Lakes Cities.

Detroit, Mich.	6.4	9.2	Cincinnati, O.	6.5	11.4
Grand Rapids, Mich.	6.4	13.3	Milwaukee, Wis.	6.0	12.4
<u>Median</u> -----	6.4	11.2	<u>Median</u> -----	6.2	11.9

Middle Great Plains Cities.

Cedar Rapids, Ia.	-	11.7
Davenport, Ia.	5.6	11.1
Dubuque, Ia.	5.2	13.6
Muskegee, Okla.	5.7	8.8
Springfield, Mo.	6.3	8.5
<u>Median</u> -----	5.6	11.1

Large Great Plains Cities.

Minneapolis, Minn.	6.2	12.9	Kansas City, Kan.	6.6	7.0
St. Paul, Minn.	6.5	10.5	Omaha, Neb.	6.5	11.2
<u>Median</u> -----	6.4	11.7	<u>Median</u> -----	6.5	8.6

T A B L E XXII (Continued)

MEDIAN QUALIFICATIONS OF ELEMENTARY SCHOOL TEACHERS  
UPON A BASIS OF TRAINING AND EXPERIENCE BY  
GEOGRAPHICAL AND POPULATION GROUPS

30 Dependent Cities : : 51 Independent Cities.

Dependent Cities	Yrs. of Training Above 8th Grade.	Yrs. of Exper- ience.	Independent Cities	Yrs. of Training Above 8th Grade.	Yrs. of Exper- ience.
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Middle Western Cities.

Berkeley, Calif.	6.7	12.2			
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<u>Median</u> -----	6.7	12.2			
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Large Western Cities.

Denver, Colo.	6.4	12.8
Oakland, Cal.	6.3	10.0
Los Angeles, Cal.	6.6	5.9
Salt Lake City, U.	8.0	-
Seattle, Wash.	6.5	13.6
Spokane, Wash.	6.1	12.8

<u>Median</u> -----	6.4	12.8
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<u>Median for all groups</u>	6.4	10.4
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<u>Median for all groups</u>	6.3	9.5
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Data Taken From National Committee of Chamber For Commerce  
for Cooperation with Public Schools and American City  
Bureau, Know and Help Your Schools, Inquiry No.1, pp.42-54.

T A B L E XXIII.

MEDIAN QUALIFICATIONS OF HIGH SCHOOL TEACHERS UPON A BASIS OF TRAINING AND EXPERIENCE.

20 Dependent Cities : 51 Independent Cities.

Middle Eastern Cities.

Dependent Cities	Yrs. of Training Above 8th Grade.	Yrs. of Experience.	Independent Cities	Yrs. of Training Above 8th Grade.	Yrs. of Experience.
Brockton, Mass.	-	-	Allentown, Pa.	6.6	-
Brookline, Mass.	9.8	16.5	Altoona, Pa.	8.0	8.5
Elmira, N. Y.	8.4	9.2	Bayonne, N. J.	8.5	5.1
Everett, Mass.	9.1	15.0	Elizabeth, N. J.	8.4	10.2
Holyoke, Mass.	-	10.3	Harrisburg, N. J.	8.3	11.0
Jamestown, Mass.	8.3	11.0	Passaic, N. J.	8.4	12.0
New Britain, Conn.	8.4	6.8	Perth Amboy, N. J.	8.4	11.5
Newport, R. I.	8.0	4.5			
Newton, Mass.	8.7	12.2			
Portland, Maine	8.3	10.3			
Schnectady, N. Y.	8.4	9.3			
Waterbury, Conn.	8.4	9.0			
Woonsocket, R. I.	8.4	10.0			
<u>Median</u> -----	8.4	10.6	<u>Median</u> -----	8.4	10.6

Large Eastern Cities.

Fall River, Mass.	8.3	9.6	Scranton, Pa.	8.2	12.8
New Bedford, Mass.	8.2	13.6	Camden, N. J.	8.4	10.3
Providence, R. I.	9.0	8.3	Jersey City, N. J.	9.5	15.5
Rochester, N. Y.	8.3	11.5	Paterson, N. J.	8.3	16.0
Springfield, Mass. *		10.4	Newark, N. J.	8.6	7.1
			Trenton, N. J.	10.3	-
<u>Median</u> -----	8.3	10.4	<u>Median</u> -----	8.5	12.0

Middle Southern Cities.

Montgomery, Ala.	8.4	5.5	Austin, Tex.	7.4	5.0
Roanoke, Va.	6.8	10.8	Covington, Ky.	8.4	5.5
Winston-Salem, N.C. *		8.5	Lexington, Ky.	8.0	7.7
			Mobile, Ala.	6.2	5.1
			Wheeling, Va.	*	2.0
<u>Median</u> -----	7.6	7.0	<u>Median</u> -----	8.2	5.5

T A B L E XXIII (Continued)

MEDIAN QUALIFICATIONS OF HIGH SCHOOL TEACHERS UPON A BASIS OF TRAINING AND EXPERIENCE.

20 Dependent Cities : 51 Independent Cities.

Large Southern Cities.

Dependent Cities	Yrs. of Training Above 8th Grade.	Yrs. of Experience.	Independent Cities	Yrs. of Training Above 8th Grade.	Yrs. of Experience.
Baltimore, O.	8.0	12.2	Atlanta, Ga.	8.8	11.2
Richmond, Va.	8.1	11.5	Louisville, Ky.	-	13.5
			New Orleans, Va.	8.3	13.2
			San Antonio, Tex.	8.3	7.2
<u>Median</u> -----	8.0	11.8	<u>Median</u> -----	8.3	12.2

Middle Great Lakes Cities.

Kenosha, Wisc.	8.3	12.2	Aurora, Ill.	8.0	8.0
Racine, Wisc.	8.4	8.5	Battle Creek, Mich.	8.4	8.5
Saginaw, Mich.	-	13.2	Decatur, Ill.	8.4	8.5
			Flint, Mich.	-	6.1
			Peoria, Ill.	8.3	10.3
			Quincy, Ill.	8.2	9.5
			Springfield, Ill.	8.5	9.5
			Gary, Ind.	8.3	11.3
			Jackson, Mich.	8.6	15.0
			Kalamazoo, Mich.	8.5	13.5
			South Bend, Ind.	8.6	12.8
			Springfield, O.	8.6	17.4
			Terre Haute, Ind.	8.4	10.5
<u>Median</u> -----	8.3	12.2	<u>Median</u> -----	8.4	10.3

Large Great Lakes Cities.

Detroit, Mich.	8.3	11.5	Cincinnati, O.	8.3	13.2
Grand Rapids, Mich.	8.3	12.4	Milwaukee, Wisc.	8.4	12.4
<u>Median</u> -----	8.0	11.9	<u>Median</u> -----	8.4	12.8

Middle Great Plains Cities.

Cedar Rapids, Ia.	-	20.0
Davenport, Ia.	9.3	13.5
Dubuque, Ia.	6.8	9.0
Muskogee, Okla.	8.3	11.0
Springfield, Mo.	8.5	5.9
<u>Median</u> -----	8.4	10.0



T A B L E XXIII (Continued)

MEDIAN QUALIFICATIONS OF HIGH SCHOOL TEACHERS UPON A BASIS OF TRAINING AND EXPERIENCE.

20 Dependent Cities : 51 Independent Cities.

Large Great Plains Cities.

Dependent Cities	Yrs.of Training Above 8th Grade.	Yrs.of Exper- ience.	Independent Cities	Yrs.of Training Above 8th Grade.	Yrs.of Exper- ience.
Minneapolis, Minn.	8.2	12.3	Kansas City, Kan.	8.7	9.0
St. Paul, Minn.	8.4	12.9	Omaha, Neb.	8.8	12.5
<u>Median</u> -----	8.3	12.6	<u>Median</u> -----	8.7	10.7

Middle Western Cities.

Berkley, Cal.	9.5	8.5
<u>Median</u> -----	9.5	8.5

Large Western Cities.

Denver, Colo.	8.6	13.4
Oakland, Calif.	8.5	7.3
Los Angeles, Cal.	-	-
Salt Lake City, U.	8.7	12.5
Seattle, Wash.	8.5	12.2
Spokane, Wash.	8.1	10.8
<u>Median</u> -----	8.5	12.2

<u>Median for all Dependent Cities</u>	8.3	10.6	<u>Median for all Independent Cities</u>	8.4	10.8
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 Data Taken From National Committee of Chamber For Commerce  
 for Cooperation with Public Schools and American City  
 Bureau, Know and Help Your Schools, Inquiry No.1, pp.42-54.

T A B L E XXIV A.

NUMBERS OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE ELEMENTARY SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

Middle Eastern Cities.

44 Dependent Cities.

<u>Groups</u>	<u>No of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Brockton	5025	5825	46.3
Brookline	2378	2477	49.4
Elmira	3230	3117	50.8
Everett	4022	4046	49.9
Holyoke	3663	3691	49.9
Jamestown	3475	3541	49.4
New Britain	4972	5062	49.5
Newport	2067	2106	49.5
Newton	4009	4127	49.2
Pawtucket	4466	4390	50.4
Pittsfield	3469	3562	49.3
Portland	4837	4975	49.2
Poughkeepsie	2770	2782	49.8
Schenectady	7844	1975	49.5
Sommerville	6349	6991	48.3
Stanford	3464	3482	49.9
Waterbury	7681	7039	52.1
Woonsocket	2344	2402	49.3
MEDIAN.....			49.5

79 Independent Cities.

Allentown	6085	6109	49.8
Altoona	4940	4916	50.1
Amsterdam	2234	2127	51.2
Bayonne	6616	6397	55.
Easton	2811	2821	49.8
East Orange	4121	4041	50.4
Elizabeth	6242	6020	50.9
Harrisburg	6298	6358	49.9
Norristown	2325	2368	49.2
Passiac	5812	5635	50.7
Perth Amboy	4115	3916	51.1
MEDIAN.....			50.4

T A B L E XXIV. A. (Continued).

NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE ELEMENTARY SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

Large Eastern Cities.

44 Dependent Cities.

<u>Groups</u>	<u>No of Male Pupils</u>	<u>No of female Pupils</u>	<u>Percentage of Male Pupils</u>
Baltimore	40751	40880	49.9
Buffalo	35098	33533	51.1
Fall River	8541	8514	50.
New Bedford	8160	7853	50.9
New Haven	14732	14879	50.
New York	457939	451506	50.9
Providence	19081	19986	48.8
Rochester	18734	18259	50.6
Springfield	11071	10976	50.2
MEDIAN.....			50.2

Middle Southern Cities.

Montgomery	2876	3507	45.7
Portsmouth	2687	3021	47.3
Roanoke	4196	4560	47.
Winston-Salem	3121	3507	47.
MEDIAN.....			47.

Large Southern Cities.

Birmingham	14891	16055	48.1
Houston	9961	11041	47.2
Nashville	8596	9263	48.1
Richmond	12043	14200	45.8
Washington	29717	31819	48.2
MEDIAN.....			48.1

T A B L E XXIV A. (Continued).

NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE  
IN THE ELEMENTARY SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

Middle Great Lakes Cities

<u>Groups</u>	<u>No of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Kenosha	3260	2871	53.1
Racine	4523	4543	49.9
Saginaw	2645	2557-	50.8
MEDIAN.....			50.8

Large Great Lakes Cities

Detroit	59260	58552	50.3
Grand Rapids	9615	9957	49.6
MEDIAN.....			49.7

Large Great Plains Cities.

Minneapolis	28553	29880	48.8
St. Paul	15514	15465	50.0
MEDIAN.....			49.4

Middle Western Cities

Berkeley, Calif.	5213	5398	49.1
MEDIAN.....			49.1
MEDIAN FOR ALL GROUPS.....			44.6

(1). Data Taken from "Statistics of City School Systems."  
Department of Education Bulletin, 1920, No. 24, pp. 354-367.

T A B L E XXIV B.

NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE ELEMENTARY SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

Large Eastern Cities.

79 Independent Cities.

<u>Groups</u>	<u>No of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Boston	68367	64481	51.4
Pittsburg	45567	44263	50.6
Reading	8278	8017	50.8
Scranton	12562	12422	50.4
Camden	8626	8499	53.5
Jersey City	21510	20944	50.6
Newark	38614	37208	50.5
Paterson	11620	11264	50.7
Trenton	8608	8898	49.
MEDIAN.....			50.6

Middle Southern Cities.

Austin	3883	3481	47.8
Covington	3057	3385	47.4
Lexington	2695	2841	48.6
Mobile	3586	4292-	45.5
Savannah	5596	6323	47.3
Wheeling	2977	3080	48.3
MEDIAN.....			47.6

Large Southern Cities

Atlanta	14202	15682	47.5
Fort Worth	7405	8230	47.4
Louisville	15769	16629	48.7
New Orleans	22221	25570	46.4
San Antonio	11512	11889	49.1
MEDIAN.....			50.4

T A B L E XXIV B. (Continued)

NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE ELEMENTARY SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

Middle Great Lake Cities.

79 Independent Cities

<u>Group</u>	<u>No of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Aurora	1604	1541	51.
Battle Creek	3212	3432	49.8
Danville	2004	2117	48.6
Decatur	3552	3769	48.5
Flint	5934	5961	49.8
Highland Park			49.5
Joliet	3181	3105	50.7
Peoria	6085	6443	48.5
Quincy	2278	2329	49.4
Springfield	4888-	4934	49.7
East Chicago	2171	2075	51.1
Gary	3965	3833	50.8
Jackson	3460-	3514-	49.7
Kalamazoo	3857	3799	49.2
South Bend	5154	5278	49.4
Springfield, Ohio	4861	5149	48.5
Terre Haute	6209	6676	48.
MEDIAN.....			49.5

Large Great Lakes Cities

Akron	13273	13360	49.
Chicago	186392	181833	50.4
Cincinnati	29961	26755	52.8
Cleveland	57015	55304	50.7
Dayton	10839	10604	50.4
Indianapolis	21204	21856	49.2
Milwaukee	39884	30310	50.4
MEDIAN.....			50.4

Middle Great Plains Cities

Cedar Rapids	3862	4250	47.6
Davenport	4512	4477	50.1
Dubuque			
Lincoln	5428	5523	49.6
Topeka	4005	4350	47.9
Waterloo	1702	1756	49.2
Muskogee	3187	3583	47.
Oklahoma City	8528	9058	48.4
Springfield, Mo.	3895	3980	49.4
Tulsa, Okla.	5642	5914	47.9
MEDIAN.....			49.2

T A B L E XXIV B. (Continued)

NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE ELEMENTARY SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

Large Great Plains Cities.

79 Independent Cities.

<u>Groups</u>	<u>No of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Duluth	8064	8220	49.5
Kansas City, Kansas	7993	8437	48.6
Kansas City, Mo.	24177	25593	48.5
Omaha	15088	15418	49.4
St. Louis, Mo.	52148	53466	49.3
MEDIAN.....			49.3

Middle Western Cities

Colorado Springs	2936	3065	48.9
Pasadena	4074	4214	48.9
San Diego	5725	5849	49.4
Tacoma	7955	8303	42.
MEDIAN.....			48.9

LARGE Western Cities

Denver	20597	20876	49.6
Oakland	16675	18008	48.
Los Angeles	45361	45328	49.9
Salt Lake City	12138	12203	49.8
San Francisco	30833	30411	50.3
Seattle	21994	22436	49.
Spokane	9670	10236	48.6
MEDIAN.....			49.6
MEDIAN FOR ALL GROUPS.....			44.4

(1). Data Taken from "Statistics of City School Systems." Department of Education Bulletin, 1920, No. 24, pp. 354-367

T A B L E XXV.A.

TABLE SHOWING NUMBERS OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE HIGH SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

44 Dependent Cities.

Middle Eastern Cities

<u>Groups</u>	<u>No. of Male Pupils</u>	<u>No. of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Brockton	660	1069	38.4
Brookline	341	475	41.7
Elmira	518	670	43.6
Everett	497	510	49.3
Holyoke	382	444	46.2
Jamestown	459	655	41.2
New Britain	611	652	48.3
Newport	253	379	40.
Newton	646	925	40.
Pawtucket	360	417	46.3
Pittsfield	403	558	41.9
Portland	921	1168	44.
Poughkeepsie	425	487	46.4
Schenectday	884	977	47.5
Sommerville	518	1177	30.5
Stanford	394	477	45.
Waterbury	813	701	53.6
Woonsocket	168	478	48.5
MEDIAN.....			44.5

Large Eastern Cities.

Baltimore	2690	2976	47.7
Buffalo	2843	2711	50.4
Fall River	668	801	44.5
New Bedford	471	617	43.2
New Haven	11876	2146	46.6
New York	40803	43237	48.5
Providence	1820	1915	48.7
Rochester	1594	1743	47.7
Springfield	1622	1239	45.2
MEDIAN.....			47.7

Middle Southern Cities

Montgomery	272	470	36.6
Portsmouth	215	382	35.9
Roanoke	177	315	35.9
Winston-Salem	207	305	40.3
MEDIAN.....			36.3



T A B L E XXV A (Continued)

TABLE SHOWING NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE HIGH SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

44 Independent Cities.

Large Southern Cities.

<u>Groups</u>	<u>No. of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Birmingham	1395	1984	49.2
Houston	984	1641	37.3
Nashville	586	913	32.4
Richmond	878	1645	35.1
Washington	3209	3988	44.6
MEDIAN.....			37.3

Middle Great Lakes Cities

Kenosha	298	257	53.6
Racine	411	571	40.1
Saginaw	434	443	49.5
MEDIAN.....			49.4

Large Great Lakes Cities

Detroit, Mich.	8327	8202	50.3
Grand Rapids	1455	1696	46.1
MEDIAN.....			48.2

Large Great Plains Cities

Minneapolis	3640	5164	41.3
St. Paul	1635	2018	44.7
MEDIAN.....			43.3

MEDIAN FOR ALL GROUPS..... 44.6

(1) Data Taken from Statistics of City School Systems, Department of Education, Bulletin, 1920, No. 24, pp. 534-367.

T A B L E XXV B.

TABLE SHOWING NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE HIGH SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

79 Independent Cities.

Middle Eastern Cities.

Groups	<u>No. of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Allentown	522	632	44.3
Altoona	817	811	50.
Amsterdam	196	240	44.9
Bayonne	460	596	39.8
Easton	365	362	50.
East Orange	668	722	40.8
Elizabeth	605	716	48.7
Harrisburg	860	925	48.1
Norristown	254	295	46.2
Passiac	400	437	48.3
Perth Amboy	336	280	45.7
MEDIAN.....			48.7

Large Eastern Cities

Boston	8120	9289	46.
Pittsburg	5037	5503	47.7
Reading	835	831	50.
Scranton	1035	1308	43.2
Camden	388	473	45.
Jersey City	1843	2131	47.6
Newark	2747	2891	48.7
Paterson	1090	9651	53.
Trenton	1178	1501	43.9
MEDIAN.....			47.6

Middle Southern Cities

Austin	898	1097	45.
Covington	206	345	37.3
Lexington	215	345	37.3
Mobile	347	712	32.7
Savannah	800	514	60.7
Wheeling	355	451	44.
MEDIAN.....			43.3

T A B L E XXV B. (Continued)

TABLE SHOWING NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE HIGH SCHOOLS, AND PERCENTAGE OF MALE PUPILS

79 Independent Cities

Large Southern Cities

<u>Groups</u>	<u>No. of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Atlanta	381	1192	24.2
Fort Worth	904	1348	40.1
Louisville	1376	1955	41.
New Orleans	854	1764	32.5
San Antonio	1312	1747	42.8
MEDIAN.....			41.

Middle Great Lakes Cities

Aurora	308	342	47.3
Battle Creek	458	626	42.2
Danville	277	412	40.2
Decatur	566	739	43.3
Flint	330	451	42.2
Highland Park			
Joliet			
Peoria	655	842	43.7
Quincy	274	392	41.1
Springfield	628	778	44.6
East Chicago	245	222	52.4
Gary	272	323	45.7
Jackson	402	466	46.4
Kalamazoo	448	521	46.2
South Bend	546	669-	44.9
Springfield, Ohio	537	665	44.7
Terre Haute	676	946	41.6
MEDIAN.....			44.6

Large Great Lakes Cities

Akron	1325	1630	44.5
Chicago	1594	17555	47.6
Cincinnati	2213	2765	44.4
Cleveland	4692	4687	50.1
Dayton	1257	1557	44.2
Indianapolis	2638	3073	46.1
Milwaukee	3148	3363	48.3
MEDIAN.....			46.1

T A B L E XXV B. (Continued)

TABLE SHOWING NUMBER OF MALE AND FEMALE PUPILS IN AVERAGE DAILY ATTENDANCE IN THE HIGH SCHOOLS, AND PERCENTAGE OF MALE PUPILS.

79 Independent Cities

Middle Great Plains Cities

<u>Groups</u>	<u>No. of Male Pupils</u>	<u>No of Female Pupils</u>	<u>Percentage of Male Pupils</u>
Cedar Rapids	362	551	39.6
Davenport	546	620	46.8
Dubuque			
Lincoln	814	894	47.6
Topeka	620	815	43.2
Waterloo	231	311	42.6
Muskogee	300	528	36.1
Oklahoma City	973	1805	42.7
Springfield, Mo.	553	659	45.6
Tulsa, Okla,	468	712	39.6
MEDIAN.....			43.5

Middle Western Cities

Colorado Springs	549	682	43.7
Pasadena	836	1053	44.2
San Diego	751	925	44.8
Tacoma	1199	1663	41.1
MEDIAN.....			43.7

Large Western Cities

Denver	2458	2816	46.4
Oakland	2059	3649	36.
Los Angeles	5928	7338	44.6
Salt Lake City	1225	1429	46.1
San Francisco	2524	3577	41.3
Seattle	2706	4013	40/2
Spokane	1603	2232	41.7

MEDIAN.....

MEDIAN FOR ALL GROUPS..... 44.4

(1). Data Taken from Statistics of City School Systems. Department of Education, Bulletin, 1920, No. 24, pp. 534-367.

In the present study, all cities not subject to municipal control have been considered independent. Among the number are included certain cities whose budgets are supervised by county or state commissions created for the purpose. The two tables which follow (Tables XXVI and XXVII) have been submitted to meet the possible objection that controls cities have been compared with control cities. These tables show in the case of two standards chosen at random from the nine used, one educational and one financial, the results obtained by completely independent cities, subject to no external control. The per capita municipal school cost payments for forty-two completely independent cities, as well as the qualifications of high school teachers based upon training and experience for twenty-seven completely independent cities, are submitted. Comparison of those cities completely independent with those cities dependent upon some form of county or state agency reveals practically no difference.

T A B L E XXVI

MEDIAN PER CAPITA MUNICIPAL SCHOOL-COST PAYMENTS  
FOR 42 COMPLETELY INDEPENDENT CITIES.

Middle Great Lakes Cities

Completely Independent Cities:      School-Costs

Aurora, Ill.	6.17
Battle Creek, Mich.	9.59
Danville, Ill.	5.37
Decatur, Ill.	5.56
Flint, Mich.	4.99
Highland Park, Mich.	13.66
Joliet, Ill.	7.03
Peoria, Ill.	6.56
Quincy, Ill.	6.25
Springfield, Ill.	7.29

MEDIAN..... 6.40

Large Great Lakes Cities

Chicago, Ill.	6.57
Milwaukee, Wis.	6.40

Large Great Plains Cities

Kansas City, Kansas	5.06
Kansas City, Mo.	7.73
Omaha, Neb.	8.17
St. Louis, Mo.	6.97

MEDIAN..... 7.35

Middle Western Cities

Colorado Springs, Colo.	9.02
Tacoma, Wash.	7.23

MEDIAN..... 8.12

Large Western Cities

Salt Lake City, Utah	9.78
Seattle, Wash.	8.05
Spokane, Wash.	8.96

MEDIAN..... 8.96

MEDIAN FOR ALL GROUPS: 6.32

(1). Data Taken From Department of Commerce, 1919. Financial  
Statistics of Cities Having a Population of Over 30,000.

T A B L E XXVII

MEDIAN QUALIFICATIONS OF HIGH SCHOOL TEACHERS BASED UPON TRAINING AND EXPERIENCE FOR 27 COMPLETELY INDEPENDENT CITIES.

Completely Independent Cities      Years Training      Years Experience

Middle Eastern Cities

Allentown, Pa.	6.6	--
Altoona, Pa.	8.0	8.5
Harrisburg, Pa.	8.3	11.6
MEDIAN.....	8.0	9.7

Large Eastern Cities

Scranton, Pa.	8.2	12.8
MEDIAN.....	8.2	12.8

Middle Southern Cities

Austin, Texas	7.4	5.0
Covington, Ky.	8.4	5.5
Lexington, Ky.	8.0	7.7
Mobile, Ala.	6.2	5.1
Wheeling, W. Va.	--	2.0
MEDIAN.....	7.7	5.1

Large Southern Cities

Atlanta, Ga.	8.8	11.2
Fort Worth, Texas	--	--
Louisville, Ky.	--	13.5
New Orleans, La.	8.3	13.2
San Antonio, Texas	8.3	7.2
MEDIAN.....	8.3	12.2

Middle Great Lakes Cities

Aurora, Ill.	8.0	8.0
Battle Creek, Mich.	8.4	8.5
Decatur, Ill.	8.4	8.5
Flint, Mich.	--	6.1
Peoria, Ill.	8.3	10.3
Quincy, Ill.	8.2	9.5
Springfield, Ill.	8.5	9.5
MEDIAN.....	8.3	8.5

T A B L E XXVII (Continued)

MEDIAN QUALIFICATIONS OF HIGH SCHOOL TEACHERS BASED UPON TRAINING AND EXPERIENCE FOR 27 COMPLETELY INDEPENDENT CITIES.

Completely Independent Cities	Years Training	Years Experience
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Large Great Lakes Cities

Milwaukee, Wis.	8.4	12.4
MEDIAN.....	8.4	12.4

Large Great Plains Cities

Kansas City, Kansas	8.7	9.0
Kansas City, Mo.	8.8	12.5
MEDIAN.....	8.7	10.7

LARGE WESTERN CITIES

Salt Lake City, Utah	8.7	12.5
Seattle, Wash.	8.5	12.2
Spokane, Wash.	8.1	10.8
MEDIAN.....	8.5	12.2
MEDIAN FOR ALL GROUPS:	8.3	9.5

Data taken from National Committee of Chamber Of Commerce for Cooperation with Public Schools and American City Bureau, Know and Help Your Schools. Inquiry No.1, pp.42-54.



T A B L E XXVI (Continued)

MEDIAN PER CAPITA MUNICIPAL SCHOOL-COST PAYMENTS  
FOR 42 COMPLETELY INDEPENDENT CITIES.

Middle Eastern Cities

<u>Completely Independent Cities:</u>	<u>School-Costs</u>
Allentown, Pa.	5.74
Altoona, Pa.	5.93
Amsterdam, N. Y.	4.21
Easton, Pa.	5.82
Harrisburg, Pa.	6.49
Norristown, Pa.	3.71
MEDIAN.....	5.78

Large Eastern Cities

Boston, Mass.	9.11
Pittsburg, Pa.	8.14
Reading, Pa.	4.21
Scranton, Pa.	6.08
MEDIAN.....	7.11

Middle Southern Cities

Austin, Texas	4.93
Covington, Ky.	3.51
Lexington, Ky.	4.78
Mobile, Ala.	2.64
Savannah, Ga.	3.26
Wheeling, W. Va.	7.40
MEDIAN.....	4.14

Large Southern Cities

Atlanta, Ga.	4.28
Fort Worth, Texas	3.88
Louisville, Ky.	4.86
New Orleans, La.	3.12
San Antonio, Texas	4.84
MEDIAN.....	4.88

B I B L I O G R A P H Y

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National Committee for Chamber of Commerce Cooperation With The  
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