

DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1919, No. 50  
IN SEVEN PARTS

THE PUBLIC SCHOOL SYSTEM  
OF MEMPHIS, TENNESSEE

REPORT OF A SURVEY MADE UNDER THE  
DIRECTION OF THE  
COMMISSIONER OF EDUCATION

PART I

- I. An Industrial and Social Study of Memphis
- II. School Organization, Supervision, and Finance
- III. The Building Problem



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## LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, September 25, 1919.*

SIR: I am transmitting herewith for publication as a bulletin of the Bureau of Education the report of a survey of the schools of the city of Memphis, Tenn., made under my direction. I am asking that it be printed in the following seven parts:

Part 1. Chapter I. An Industrial and Social Study of Memphis.

Chapter II. School Organization, Supervision, and Finance.

Chapter III. The Building Problem.

Part 2. Chapter I. The Elementary Schools.

Chapter II. The High Schools.

Part 3. Civic Education.

Part 4. Science.

Part 5. Music.

Part 6. Industrial Arts, Home Economics, and Gardening.

Part 7. Health Work.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

The SECRETARY OF THE INTERIOR.

# THE PUBLIC SCHOOL SYSTEM OF MEMPHIS, TENNESSEE.

## INTRODUCTION.

In April, 1919, at the request of the Board of Education of Memphis, Tenn., the United States Commissioner of Education submitted the conditions on which the Bureau of Education would make a survey of the public school system of that city. These conditions, as stated by the Commissioner of Education, follow:

(1) That the board of education, the superintendent of public schools, and all other public officers and teachers connected with the schools will give me and the persons detailed to make the survey their hearty cooperation, to the end that the survey may be made most effectively and economically.

(2) That the survey committee be permitted to find the facts as they are, and, in so far as may seem advisable, to report them as they are found.

(3) That the findings of the survey committee and such recommendations for the improvement of the schools as may seem to be desirable may be published as a bulletin of the Bureau of Education at the expense of the Federal Government for distribution, first, among the citizens of Memphis and, second, among students of education throughout the country.

(4) That the necessary expenses of the survey, including expenses for travel and subsistence for employees of the bureau detailed for this work, and the honorariums and expenses of the one or more additional persons whom it may be necessary to employ to assist in the work will be paid by the board of education. It is understood, however, that the board will not be obligated for expenses beyond \$5,000.

It is my purpose to begin the survey on or before May 12 and to have the field work of it finished in June. The final report will be submitted and printed as early as possible after the 1st of July. Such portion as may be needed by the board in determining their building policy for next year will be submitted as much earlier than the 1st of July as possible.

On May 5 the commissioner was notified that all the conditions named had been agreed to. To assist him in making this study the commissioner appointed the following commission:

### THE SURVEY COMMISSION.

Frank F. Bunker, *Specialist in City School Systems, Bureau of Education*  
*director of the survey.*

Thomas Alexander, *Professor of Elementary Education, Peabody College for*  
*Teachers, Nashville, Tenn.*

William T. Bawden, *Specialist in Vocational Education, Bureau of Education.*

Hiram Byrd, *Specialist in Health Education, United States Public Health*  
*Service.*

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Elmer W. Christy, *Supervisor of Industrial Education, Public Schools, Cincinnati, Ohio.*

Fletcher B. Dresslar, *Specialist in School Architecture, Sanitation, Buildings, and Equipment, Bureau of Education.*

Arthur W. Dunn, *Specialist in Civic Education, Bureau of Education.*

Will Earhart, *Supervisor of Music, Public Schools, Pittsburgh, Pa.*

Allice Barrows Fernandez, *Specialist in Social and Industrial Problems, Bureau of Education.*

Florence C. Fox, *Specialist in Primary Grade Education, Bureau of Education.*

Ada Van Stone Harris, *Director of Elementary Practice Teaching, Public Schools, Pittsburgh, Pa.*

Carrie A. Myford, *Specialist in Home Economics, Bureau of Education.*

F. A. Merrill, *Specialist in School and Home Gardening, Bureau of Education.*

John L. Randall, *Specialist in School and Home Gardening, Bureau of Education.*

Willard S. Small, *Specialist in School Hygiene and Physical Education, Bureau of Education.*

George R. Twiss, *Professor of Secondary Education and State High School Inspector, Ohio State University.*

The field work began May 12 and was completed June 7, except that two members of the staff remained two weeks longer.

While the time for the examination of conditions was short, the schools closing for the year on June 13, nevertheless, through careful organization of the work and through frequent meetings of the staff for the discussion of every phase of the problem, definite and positive conclusions in which all concurred were quickly reached. Although the commission as a whole considered every important activity of the work of the system, each member was assigned to the particular field of his interest. The reports of the members of the commission were organized by the director of the survey and transmitted to the Commissioner of Education for his approval. The report is issued in separate parts for general circulation.

THE PARTS TO BE ISSUED.

Part 1. Chapter I. An Industrial and Social Study of Memphis.  
Chapter II. School Organization, Supervision, and Finance.

Chapter III. The Building Problem.

Part 2. Chapter I. The Elementary Schools.

Chapter II. The High Schools.

Part 3. Civic Education.

Part 4. Science.

Part 5. Music.

Part 6. Industrial Arts, Home Economics and Gardening.

Part 7. Health Work.

This study of the Memphis schools is intended to be a study of policies and of practices, not of persons. The commission has con-

## INTRODUCTION.

sciously avoided either praising or blaming, crediting or discrediting individuals. The matter of placing an estimate upon the value of the services which individuals are rendering is the duty of local authorities; it falls outside the province of the survey commission and has not been attempted.

The commission desires to express its appreciation of the courtesy and consideration shown its members by citizens of Memphis, the members of the board of education, the secretary's office, the superintendent and his clerks, and the entire school corps. Without exception, all cooperated to make the investigation as thorough and as efficient as the time would permit.

A special word of appreciation is due the management of the Young Men's Christian Association for providing office rooms and equipment for the staff, without charge, and to the local company handling the Burrough's Adding Machine, which very kindly loaned one of these machines to the staff.

A summary of conclusions and recommendations will be found at the end of each chapter.

## Part 1.

### CHAPTER I. AN INDUSTRIAL AND SOCIAL STUDY OF MEMPHIS.

CONTENTS.—Strategic position for trade; Population and nativity; A distributing market; Industries and occupations; Social consciousness of Memphis; Threshold of a new era; Educational needs based on social and industrial conditions; Initiative and ability to think; Knowledge of agriculture; Knowledge of science; Knowledge of mechanics; Of exchange, marketing, shipping; Physical health; Social and civic development.

One hundred years ago a small settlement of 53 people founded the town of Memphis on the Chickasaw Bluffs overlooking the Mississippi River. The only communication which this little community had with the outside world was through the slow transportation of river barges and flat boats, and the leisurely travel of pack horses and traders across the plains and through the mountains of Tennessee. Trade in the city was limited to a single Indian trading post on Commerce Street, and the only manufactory was the smithy of the blacksmith and gunsmith, who repaired the muskets of the Indian hunters. In 1832 the first church was established, and in 1848 the first public school was started—29 years after the founding of the town.

One hundred years later, in May, 1919, the "Memphis Special," from New York City, and other trains over the 17 railroads which now enter Memphis, landed visitors to the centenary of the town in a city which bore all the earmarks of a prosperous American city, even of a booming western city. Skyscraper office buildings, factories covering blocks of building space, giant smokestacks to the south and north, made a sky line along the old Chickasaw Bluffs which reminded the traveler of New York City. Large hotels with cool corridors and metropolitan cuisines, department stores the duplicate of those in any large city, innumerable quick-lunch eating places, a clanging street-car system, whirring autos and auto trucks moving incessantly like shuttles back and forth through the city, the spacious, comely residential district of the well-to-do to the east, the factory district to the southwest, the cosmopolitan character of Second and Beale Streets, with Russian, Yiddish, and Italian names—all these things made the visitor feel at home, as he might in Detroit or Cleveland, New York or Pittsburgh. Only the great bales of cotton

trundling down the street behind sturdy mules; the soft southern accent, and the leisurely movements of the people on the streets, their gentle courtesy and graciousness in place of the usual western rush and hurry reminded one that he was in a southern city.

What has transformed Memphis in 100 years from the little frontier settlement of 1819 to the most important city on the Mississippi between St. Louis and New Orleans? What has made it the chief city of the Tri-States (Arkansas, Mississippi, Tennessee); the largest cotton and hardwood lumber market in the world; and the chief distributing center for the central South? What is the character of the population which now makes up the city? What proportion is white or colored, or foreign born? How do the masses of the people earn their living? What are the industrial conditions and industrial needs of the community? What are the social conditions of the community? What are its amusements and recreations? How does the civic spirit express itself?

If the industrial life of the city has grown from a single blacksmith's shop to hundreds of factories and stores, has the educational system grown in proportion, or, as so often happens in rapidly growing American cities, is it still 30 years behind the material growth of the city? If so, what are the reasons for such a condition; and in what respects should the system be changed to meet the changed social and industrial conditions?

Since the schools were created by the people to meet the needs of the community, it is essential that such questions be answered before the educational system of the city can be fairly appraised. It is necessary that a careful first-hand study of conditions be made in order to determine whether the schools are educating the rising generation of children so that they will not only carry on the best traditions of the community, but also improve on its previous ideals of living and working in accordance with changed social and industrial conditions. For these reasons, the survey staff undertook a preliminary study of the social and industrial life of Memphis as a basis for determining the needs of the community, and the extent to which the schools were meeting these needs.

#### THE PIONEER SPIRIT AND THE STRATEGIC POSITION FOR TRADE.

The two chief factors in the development of Memphis have been its daring, pioneer spirit, and its strategic position for trade. Neither one without the other would have been sufficient to explain its rapid growth.

The history of Memphis up to the present generation has been a dramatic story of overcoming what seemed at times insuperable material obstacles. It is a story rich in educational value for the study of history, geography, economics, and civics. From 1541,

when De Soto first entered the village of Chipca on the bluff where Memphis now stands, until 1796, when the State of Tennessee was admitted into the Union, the place which was later to become Memphis was a battle ground for the possession of which the Spanish, French, and English, the Indians and the Americans contended. Even in those days the value of the future city as a connecting link between the East and West was recognized, for it was the best available crossing place of the Mississippi between the mouth of the Ohio and the Gulf of Mexico. The years between 1796 and 1818 saw the final driving out of the Spaniards and Indians by the Americans. During that period the existence of the country about Memphis as a hunting ground for the Indians, and as a battle ground for possession by the whites passed into history. In 1818 the opening up of the rich agricultural lands of western Tennessee attracted settlers and investors, and the struggle for existence as the chief trading post of the agricultural region of the middle South was begun.

Up to 1818 the story of the locality which was later to become Memphis was the usual story of American pre-Revolutionary and Revolutionary War days. But during the next 100 years the city was subjected to trials beyond the experience of the average city. In 1873 and in 1878-79 the city suffered greatly from epidemics of yellow fever, and was almost hopelessly involved in debt. The people of the city, realizing that the situation was critical and that "complete sanitation and a pure water system" were fundamental necessities for the salvation of the city, sought the most expert advice in the country and finally adopted a new plan of sewerage originated by Col. George E. Waring, jr. This system had not been previously used to any extent. "Its failure was predicted by other engineers, but notwithstanding their predictions, it succeeded, and those who once opposed it, have since adopted it."

The significant point, however, is that the city attacked its problem not by a rule-of-thumb method but by deliberately mobilizing the best scientific knowledge of the country, and then having the courage to try a new system which had not been tested and proved, but which seemed reasonable and economical. In other words, Memphis carried over into the solution of her civic problems her old pioneer habit of daring to experiment and to attempt the new and untried.

But if the spirit of initiative and daring enterprise explains the growth of Memphis, it is equally true that the city's strategic position for trade attracted men and women with that spirit and tended to develop it. From the days when De Soto first used it as the best connecting link between east and west, and the old Chief "Chisca

started the first agricultural system in the locality," the existence of a rich agricultural country, with products to be transported and distributed, and a strategic position for such transportation and distribution, have developed the small settlement of 1818 into the chief distributing market of the central South.

Let us consider what the city has now become, how the social and industrial conditions have changed, and in what way these changed conditions necessitate changes in the educational system.

#### MEMPHIS TO-DAY—POPULATION AND NATIVITY.

Estimates of the population are difficult to obtain, because the 1900 census returns for Memphis have been rejected as unreliable, but the best evidence available indicates that in 1918 the population was 157,000, including approximately 60,000 negroes.<sup>1</sup>

For the purposes of the survey, however, the exact number in the population is not as significant as its general character, i. e., the nationality of the people, how long they have lived in the city, and whether the community is homogeneous in character.

As there were no figures in regard to nationality later than 1910, it was decided that the best method of getting information about the general character of the population would be through a study of the nativity and occupations of the parents of public-school children. It was evident that such a group, although not comprising all elements in the city, would represent more nearly than any other the general character of the bulk of the population. Consequently, a questionnaire was sent out to the parents of all public-school children asking them to state where they were born and what was their occupation.

The returns from this questionnaire show the tendency of the city to rapid growth, for it is evident from the figures that a large part of the present population was not born in or near Memphis, but has been attracted from all parts of the country. For example, there were 11,781 white parents who answered the questionnaire. Of this number, 10,352 were born in the United States. They came from 43 different States. Although 6,760, or about two-thirds, were born in the Tri-States (Arkansas, Mississippi, and Tennessee), there were

<sup>1</sup> As the census is taken only every 10 years it is customary to estimate the population for the intervening years by taking the average yearly increase between two successive census reports, and assuming that this will be the average for the succeeding 10 years. Since the census of 1900 has been rejected, we are left without a basis of comparison. But, by taking a 20-year interval we find that the census of 1890 gave a population of 64,405, and the census of 1910 gave a population of 131,105—an increase of 67,000 in 20 years. At this rate of increase, 3,350 per year, there would be a gain of 20,000 people since 1910. This number, added to the census returns of 1910 (131,105) would give a population in 1918 of 157,000. The city board of health estimate for 1918 is 160,000. This estimate is based, however, upon a more restricted area than will be included in the next census. Considering the additional area, the next census should give a population of at least 183,000 or 200,000 people.

only 183 who were born in Memphis; 3,592, or nearly one-third, were born outside the Tri-States, and of this number there were nearly as many from the West and North (1,750) as from what are commonly known as the Southern States (1,842). (See Table 1.)

TABLE 1.—*Birthplace of native-born white parents of public-school children, Memphis, Tenn.*

Number of States represented.....	43
Number of parents born in Memphis, Tenn.....	183
Number of parents born in the Tri-States, exclusive of those born in Memphis:	
State.....	Number of parents.
Arkansas.....	454
Mississippi.....	2,256
Tennessee.....	3,867
Number of parents born in Southern States, exclusive of Tri-States:	6,577
Alabama.....	442
District of Columbia.....	2
Florida.....	23
Georgia.....	211
Kentucky.....	501
Louisiana.....	118
Maryland.....	46
North Carolina.....	68
South Carolina.....	55
Texas.....	166
Virginia.....	130
West Virginia.....	20
Number of parents born in Western and Northern States:	1,842
California.....	10
Colorado.....	1
Connecticut.....	6
Delaware.....	1
Illinois.....	349
Indiana.....	276
Iowa.....	94
Kansas.....	56
Maine.....	11
Massachusetts.....	16
Michigan.....	80
Minnesota.....	24
Missouri.....	902
Montana.....	11
Nebraska.....	7
Nevada.....	2
New Jersey.....	14
New York.....	14

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TABLE 1.—*Birthplace of native-born white parents of public-school children, Memphis, Tenn.—Continued.*

Number of parents born in Western and Northern States—Continued.

State.	Number of parents.
North Dakota .....	9
Ohio .....	200
Oklahoma .....	13
Pennsylvania .....	104
Rhode Island .....	3
South Dakota .....	10
Utah .....	1
Vermont .....	3
Washington .....	3
Wisconsin .....	30
	1,750
Total number of white parents born in the United States .....	10,352

The questionnaire also revealed the fact that there is a larger number of foreign born in Memphis than is generally believed. A chamber of commerce report of 1919 estimates the number of foreign born as 1 per cent of the population, whereas the questionnaire shows that, of 11,781 parents of public-school children, 1,429, or 12 per cent, were foreign born. There were 22 nationalities distributed as follows:

TABLE 2.—*Birthplace of white foreign-born parents of public-school children, Memphis, Tenn.*

Country.	Number of parents.	Country.	Number of parents.
Russia .....	577	Sweden .....	15
Italy .....	145	Roumania .....	14
Germany .....	140	Switzerland .....	13
Austria-Hungary .....	135	Greece .....	12
England .....	88	Denmark .....	11
Poland .....	81	Norway .....	7
Belgium .....	63	Holland .....	4
Ireland .....	35	Turkey .....	2
Scotland .....	32	Bermuda .....	1
Canada .....	32	Galicja .....	1
France .....	20	Moravia .....	1

It will be seen from this table that the largest number are Russian (577). It should be noted, however, that those who signed made no distinction between Russian and Russian Jews. The next largest group is Italian (145), followed by the Germans (140), and Austro-Hungarians (135). The number from Great Britain and Canada, when combined, was 137.

In other words, counting the foreign-born parents and the parents born outside the Southern States, it is found that together they make up over one-fourth (3,179) of the total number of parents of the school children.

The replies received from the 3,801 Negro fathers and mothers show, on the other hand, that the large majority (3,183) were born in the Tri-States, although only 171 of these were born in Memphis. (See Table 3.) Only 81 were born outside the Southern States.

TABLE 3.—Birthplace of Negro fathers and mothers of public-school children, Memphis, Tenn.

Number of States represented.....	17
Number of parents born in Memphis.....	171
Number of parents born in the Tri-States, exclusive of Memphis:	
State.....	Number of parents.
Arkansas.....	148
Mississippi.....	1,542
Tennessee.....	1,325
	3,012
Number of parents born in the Southern States, exclusive of the Tri-States:	
Alabama.....	204
District of Columbia.....	6
Florida.....	4
Georgia.....	79
Kentucky.....	25
Louisiana.....	2
North Carolina.....	35
South Carolina.....	20
Texas.....	11
Virginia.....	20
	597
Number of parents born in Western and Northern States:	
Arizona.....	9
California.....	2
Connecticut.....	1
Illinois.....	17
Indiana.....	2
Iowa.....	1
Kansas.....	2
Massachusetts.....	1
Michigan.....	2
Missouri.....	18
Montana.....	3
New York.....	6
Ohio.....	11
Oklahoma.....	4
Pennsylvania.....	2
	81
Total number of Negro parents.....	3,801

The significance of these facts about population, both with regard to the educational and the civic problems of the city, will be taken up later.

## MEMPHIS AS THE DISTRIBUTING MARKET FOR THE CENTRAL SOUTH

Memphis is essentially a great distributing center, rather than an industrial city. It started as a market for the products grown in the surrounding country, and has developed along this line until now it is a great clearing house for the central South. The report of the chamber of commerce for 1919 refers to Memphis as the largest inland cotton and hardwood lumber market in the world. But from the point of view of the growth of the city, the significant fact is how Memphis, starting as the market for these two products, has applied far-sighted scientific methods to the further development of the surrounding country so that the city might become the market for an even greater variety of goods.

The two best examples of this deliberate planning to knit together the interests of the country and city for the future as well as for present commercial development are found in the work of the Farm Bureau and of the Alluvial Land Association. It was recognized by the business men of the city that if the land was not to be worn out and the future production of cotton injured it would be necessary to impress upon farmers the importance of scientific farming and of the value of the diversification of crops. But in attempting this the city met with the usual inertia of habit and custom. Therefore, the Farm Bureau was established by the chamber of commerce. It operates in the Tri-States, working in cooperation with the Department of Agriculture and sending out agents to demonstrate new methods and the use of new machinery. It has developed, in addition to the two markets already established—cotton and lumber—markets for live stock, corn, molasses, poultry and butter, peanuts, and watermelons. A report of the bureau states that, as an example of how these markets are growing, in the year 1914 only 10,000 hogs were shipped from Mississippi to St. Louis, while 65,000 head were shipped in the month of March, 1918, alone.

Recognizing, also, that efficient production can not continue unless the general standard of living is raised and better food for the family and a greater variety of it produced on each farm, the bureau is now putting forth a great deal of effort to persuade the farmers to make each farm self-sustaining. To that end, as the Farm Bureau bulletin states, their slogan is "a garden and 25 hens and 2 cows for every family." Everyone who knows the southern farms, with the great acres of cotton growing up to the very door of the house, will appreciate what such a campaign means for the social as well as for the commercial development of the country.

In the same way the Alluvial Land Association is anticipating the possible exhaustion of the lumber supply and the use of the land for

other purposes. The lumbermen decided that the cut-over lands in the alluvial regions would be more profitable for growing cotton than for reforestation. Therefore they established the Alluvial Land Association, to analyze the land and to develop farming and the producing of cotton. After the first timber is cut down, experts analyze what is left on the land, in order to determine what can still be cut for lumber, what can be used for manufacturing, and what can be converted into chemical by-products.

There is no question, of course, but that both these associations were formed for purely commercial purposes; i. e., to develop Memphis so that people would buy and sell there. But this does not affect the point that the very existence of these associations shows a recognition of the fact that such development can only be brought about through the interrelation of efforts and a spirit of cooperation and mutual understanding. In other words, the same spirit which led to solving the problem of how to make Memphis a fit place to live in is now evident in these attempts to lay the foundation for the assured commercial development of the city through a scientific study of trade conditions and a deliberate planning for the future.

#### THE INDUSTRIES OF MEMPHIS.

Is the city applying the same scientific foresight to the problem of her industrial development as she is to that of her agricultural and commercial development?

Although Memphis is essentially a distributing market rather than a manufacturing center, yet the indications are that it is tending to become more and more of an industrial city.

It was not difficult to get an idea of the general industrial development of the city, for the chamber of commerce had already started to list the industrial establishments. According to their report, published in 1919, there were 355 manufacturing establishments in the city. The list would indicate that there is no one predominant industry, but that many different industries have sprung up as a result, apparently, of two things, (1) the attempt to develop as many by-products as possible from the two main industries—cotton and lumber, and (2) the tendency of the farmers of the surrounding country to buy their farm and household supplies in Memphis rather than in the North, as formerly—another result of the work of the Farm Bureau.

A careful and comprehensive study of trade opportunities in Memphis had also been made by the chamber of commerce, and detailed information was available in regard to "raw materials," "transportation facilities," "freight costs," "hardwood outputs," "freight rates on logs," "the annual output of veneers," "fuel supply," etc.

But when the attempt was made to secure specific information in regard to the number of workers in each industry, the kind of work demanded, and the conditions of work, it was found that there was no detailed or comprehensive information on these subjects. The census for 1910 was of little value, because conditions have changed so radically in the past 10 years. It is true that the chamber of commerce had made the following estimate of the number of workers:

Male labor, about 35,000 unskilled and 15,000 skilled laborers in Memphis, of whom it is estimated 20,000 unskilled and 7,500 skilled are in industries. Female labor, 7,500 unskilled and 2,500 skilled. Estimated that 3,000 unskilled and 1,000 skilled are in industries.

These figures, however, are only an estimate, and are too general to be of much value in estimating the growth of the different industries from the standpoint of the number of workers employed or in getting an understanding of the types of work demanded. The classification of work as "skilled" or "unskilled" is of little value in determining the actual kind of work performed, for the terms "skilled" and "unskilled" mean little now in industry, since what they mean to-day they may no longer mean to-morrow.

In order to get more specific information, therefore, it was decided to make a study of the occupations of the parents of public-school children. It was recognized that such information would not cover all the workers in the city, but that it would give a fair sampling of the kinds of work done by the majority of workers. Replies to the questionnaire were received from 7,492 white fathers. The following table groups their occupations according to the general census classifications:

TABLE 4.—Classification of occupations of white fathers of public-school children, Memphis, Tenn., 1919.

Occupations.	Number of workers.	Occupations.	Number of workers.
Agriculture .....	331	Attending school.....	1
Extraction of minerals...	3	Fathers dead .....	440
Manufacturing and mechanical .....	1,934	Fathers invalid .....	10
Transportation .....	835	No occupation .....	12
Trade .....	1,534	Not given.....	232
Professional service .....	425	Retired .....	17
Public service.....	293	Specific occupation not given <sup>1</sup> .....	817
Domestic service .....	88		1,579
Clerical occupations .....	470		
	5,913	Total .....	7,492

These figures indicate that, as has already been suggested, the number of workers in manufacturing is already rivaling the number

<sup>1</sup> Information was too general to be of use, e. g., "Drug store" meant nothing, since the person giving the information may have been either a clerk or the owner. All replies containing such general information were therefore omitted from the above list.

of workers in the trade group. In fact, if we compare the number in trade alone (1,534) with those in manufacturing, it is found that there is a larger number in manufacturing and mechanical pursuits (1,934), while even if those in trade (1,534) and transportation (835) are combined, making a total of 2,369, still the number in manufacturing is 81 per cent of those engaged in trade and transportation. The importance of agriculture in the development of the city is shown by the fact that there are nearly as many in agriculture (331) as in professional pursuits (425).

The classification of workers under the above general headings shows where the greatest number of workers is concentrated, but it tells little about the variety and range of work. The following table (Table 5) lists the specific occupations as they were given by each worker, and later tabulated according to the census classification. It shows that there were 5,913 workers engaged in 366 different occupations. There were 10 different occupations in agriculture and 2 in "extraction of minerals." There were 145 different kinds of occupations listed under manufacturing, in which 1,934 workers were engaged. Only 251 of these were in the group of owners, proprietors, and managers, leaving 1,683 workers in 137 different industrial occupations.

TABLE 5.—Occupations of fathers of white children in the Memphis public schools, 1918-19.

Occupations.	Workers.	Occupations.	Workers.
Agriculture, forestry, animal husbandry.....	331	Manufacturing and mechanical—Continued.	
Dairyman.....	10	Proprietor of manufacturing company.....	10
Farmer.....	165	Representative of manufacturing company.....	7
Fisherman.....	2	Secretary of manufacturing company.....	16
Forest engineer.....	1	Superintendent of manufacturing company.....	70
Gardener.....	10	Vice president of manufacturing company.....	11
Log scaler.....	1	Axle turner.....	1
Logging superintendent.....	1	Auto upholsterer.....	1
Lumberman.....	79	Baker.....	24
Lumber inspector.....	16	Bandsaw filer.....	27
Planter.....	48	Barrel-stave cutter.....	1
Extraction of minerals.....	8	Belt maker.....	1
Coal-mine superintendent.....	1	Bicycle repairer.....	2
Miner.....	2	Blacksmith.....	31
Manufacturing and mechanical.....	1,934	Boiler inspector.....	1
Manufacturing manager.....	90	Boiler maker.....	29
Manufacturer.....	33	Bolt cutter.....	2
President of manufacturing company.....	14		

TABLE 3.—Occupations of fathers of white children in the Memphis public schools, 1918-19—Continued.

Occupations.	Workers.	Occupations.	Workers.
Manufacturing and mechanical—Continued.		Manufacturing and mechanical—Continued.	
Bookbinder.....	3	Harness maker.....	6
Bottle maker.....	1	Hatter.....	1
Box nailer.....	1	Heading inspector.....	1
Brewer.....	1	Heading jointer.....	2
Bricklayer.....	27	Horseshoer.....	2
Broom maker.....	4	Hot-air heating engineer.....	1
Building-material estimator.....	1	House mover.....	2
Cabinetmaker.....	35	Inspector.....	2
Candy maker.....	6	Interior marble setter.....	1
Carpenter.....	251	Ironworker.....	4
Carver.....	1	Jeweler.....	17
Calker.....	1	Jobber.....	1
Cement finisher.....	1	Laborer.....	23
Cement worker.....	1	Leather worker.....	16
Chair maker.....	1	Linotype operator.....	10
Chipper and corker.....	1	Machine operator.....	12
Cigar maker.....	7	Machinist.....	99
Concrete worker.....	1	Maker of bags.....	1
Contractor.....	158	Marble cutter.....	2
Cooper.....	2	Marker at box factory.....	1
Coppersmith.....	1	Mattress maker.....	1
Decorator.....	11	Mechanical engineer.....	6
Designer.....	2	Miller.....	10
Distiller.....	1	Mechanic.....	92
Door and sash maker.....	1	Millwright.....	54
Electrical engineer.....	9	Molder man.....	3
Electrical worker.....	45	Oil refiner.....	2
Engraver.....	2	Oil mill operator.....	2
Farm machine expert.....	1	Packer.....	4
Finisher.....	2	Painter.....	88
Florist.....	6	Paper cutter.....	1
Foreman.....	66	Paper hanger.....	7
Foundry man.....	1	Pattern maker.....	9
Fruit packer.....	1	Piano tuner.....	3
Garment cutter.....	3	Pipe fitter.....	9
Gas fitter.....	1	Plasterer.....	6
Gas maker.....	3	Plumber.....	34
Gin wright.....	2	Printer.....	50
Glass worker.....	2	Puncher.....	1
Glazier.....	2	Repair man.....	1
Grinder.....	2	Rigger.....	1
Gunsmith.....	3	Riveter.....	1
Hand-made furniture maker.....	1	Roofer.....	6
Hardwood floor grader.....	1	Safe expert.....	1
Hardwood floor layer.....	4	Saw repairer.....	1

TABLE 5.—Occupations of fathers of white children in the Memphis public schools, 1918-19—Continued.

Occupations.	Workers.	Occupations.	Workers.
Manufacturing and mechanical—Continued.		Transportation—Continued.	
Sawyer .....	17	Bridge foreman.....	3
Shade maker.....	1	Bridge inspector.....	1
Sheet metal worker.....	14	Captain ou ship.....	2
Ship builder.....	2	Car builder.....	1
Shipwright.....	1	Car carpenter.....	23
Shipper.....	1	Car inspector.....	30
Shoemaker and repairer.....	36	Car knocker.....	3
Sign writer.....	1	Car repairer.....	24
Slater.....	1	Carman.....	7
Spoke inspector.....	1	Chauffeur.....	4
Spoke turner.....	10	Claim agent, R. R.....	3
Stair builder.....	2	Complaint agent, R. R.....	1
Stationary engineer.....	23	Conductor, R. R.....	116
Steam engineer.....	2	Conductor, street railway.....	21
Steam fitter.....	5	Depot agent.....	1
Steam heat inspector.....	1	Development department of agriculture, Frisco R. R.....	1
Steel worker.....	3	Dredgeman.....	5
Stereotyper.....	6	Engine inspector.....	1
Still man at chemical plant.....	1	Express company agent.....	2
Stock keeper (automobile).....	1	Express instructor.....	1
Stonecutter.....	4	Expressman.....	7
Stonemason.....	2	Federal treasurer, R. R.....	2
Tailor.....	115	Fireman.....	17
Tile setter.....	3	Flagman.....	13
Timber cutter.....	1	Foreman of railroad shop.....	60
Tinner.....	12	Foreman of telephone company.....	2
Tractor demonstrator.....	1	Freight agent.....	8
Turner Handle Co.....	1	Freight traffic representative.....	2
Valve man.....	2	Gateman, R. R.....	1
Veneerer.....	1	Housing superintendent, shipyard.....	1
Watchmaker.....	6	Inspector, R. R.....	20
Well borer.....	2	Line man.....	1
Wheel maker.....	1	Locomotive engineer.....	138
Window trimmer.....	1	Marine engineer.....	8
Wood machinist.....	2	Master of dredge.....	1
Wood maker.....	7	Master of lighthouse tender.....	1
Transportation.....	835	Messenger.....	6
Baggage checker.....	5		
Block operator.....	1		
Brakeman.....	9		
Bridge building, R. R.....	1		
Bridge dispatcher.....	2		

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TABLE 5.—Occupations of fathers of white children in the Memphis public schools, 1918-19—Continued.

Occupations.	Workers.	Occupations.	Workers.
Transportation—Continued.		Trade	1,534
Motorman, street railway	50	Adjuster	2
Pilot	7	Agent	66
Porter	3	Banker	13
Railroad employee	58	Broker	42
Railroad officers	3	Butcher	24
Railway storekeeper	1	Buyer	44
Safety applicant, R. R.	1	Carrier	11
Sailor	4	Cleaner	1
Signal inspector	2	Cotton factor	13
Signal maintainer	1	Cotton marker	3
Special station agent	10	Cotton weigher	2
Stable boss	1	Coupon lister	1
Station master	1	Credit man	14
Steamboat engineer	2	Dealer	73
Steamboat man	2	Driver	26
Steamboat owner	1	Floorwalker	3
Superintendent motive power, R. R.	1	Grocer	72
Superintendent of transportation, R. R.	2	Huckster	38
Supervisor, R. R.	2	Junk dealer	9
Switchman	45	Manager of store	67
Telegrapher	27	Market man	2
Telephone company, assistant manager	1	Meat cutter	20
Telephone engineer	1	Merchant	427
Telephone installer	1	Office manager	5
Telephone lineman	1	Pawnbroker	61
Telephone operator	1	Pharmacist	43
Ticket agent	7	President of company	4
Timekeeper	2	Salesman	493
Tool man	1	Stock keeper	2
Towerman	2	Superintendent of insurance company	8
Trackman	1	Superintendent of stores, etc.	4
Train caller	1	Undertaker	5
Train dispatcher	12	Professional service	425
Tramman	4	Architect	9
Train master	1	Artist	6
Trunker at station	1	Chemist	7
Valuation engineer, R. R.	1	Chiropodist	1
Wire chief	3	Dentist	19
Wrecker, R. R.	2	Doctor and surgeon	84
Yard master	14	Draftsman	2
		Editor	7
		Engineer	90
		Lawyer	63
		Lecturer	1
		Librarian	3

TABLE 5.—Occupations of fathers of white children in the Memphis public schools, 1918-19—Continued.

Occupations.	Workers.	Occupations.	Workers.
Professional service—Continued.		Public service—Continued.	
Manager of theater	1	Income tax specialist	1
Masseur	1	Inspector for U. S. Government	2
Minister	48	Insurance and city finance commissioner	1
Musician	13	Jailer	1
Newspaper circulator	2	Judge	4
Newspaper man	3	Jury commissioner	1
Newspaper manager	2	Lecturer for U. S. Government	1
Optometrist	6	Officer	3
Photographer	6	Park commissioner	1
Playwright	1	Police guard of convict camp	4
President of baseball association	1	Policeman	70
Salvation Army officer	8	Post-office employee	47
Secretary of club	9	Road commissioner	1
Stage employee	3	Sanitary officer	2
Teacher	19	Secretary of the board of education	1
Teacher, private, Hebrew	1	Senior examiner of U. S. Employment Bureau	1
Teller	1	Sheriff	4
Tyler of Masonic Temple	1	Soldier	13
Umpire	1	Street cleaning dept. employee	7
Usher	1	Superintendent of county jail	1
Public service	293	Superintendent of cemetery	2
City assessor	1	U. S. custom officer	1
City building inspector	2	U. S. meat inspector	3
City clerk	1	Witchman	26
City commissioner	2	Domestic science	88
City engineer	1	Barber	53
City fireman	42	Butler	1
City gas inspector	1	Hotel steward	4
City marshal	1	Hotel superintendent	5
Court reporter	2	Housekeeper	1
Court stenographer	2	Janitor	1
Custodian	8	Laundryman	15
Deputy city treasurer	2	Owner of laundry	1
Deputy sheriff	9	Proprietor of pool room	1
Deputy county clerk	1	Proprietor of restaurant	4
Detective	12		
Federal grain supervisor	1		
Fire and police commissioner	1		
Government fleet employee	5		
Head of the State of Tennessee for labor	1		

TABLE 5.—Occupations of fathers of white children in the Memphis public schools, 1918-19—Continued.

Occupations.	Workers.	Occupations.	Workers.
Clerical occupations.....	479	Attending school.....	1
Accountant.....	34	Father dead.....	440
Advertising manager.....	2	Father invalid.....	10
Auditor.....	22	Retired.....	17
Bookkeeper.....	93	No occupation.....	12
Cashier.....	31	Not given.....	282
Clerk.....	257	Specific occupation not given.....	817
Collector.....	26		
Paymaster, transfer co.....	3	Grand total.....	7,492
Proof reader.....	2		

These facts are of particular importance in two respects. In the first place, they throw light upon the problem of industrial education. There is sometimes a tendency in rapidly growing industrial cities to endeavor to develop a system of rather narrow industrial training in order to fit workers for specific types of work. A glance at the table of occupations shows how futile and short sighted such an attempt would have been in Memphis, even if it were desirable from an educational standpoint, for no community could undertake the task, either financially or administratively, of training for 137 specific types of work. Moreover, by the time such training would be completed, the specific type of work or machine would doubtless have disappeared. From an educational standpoint, also, such a scheme of industrial training would be in accordance with the German method of specialized industrial education rather than the American. It is evident that Memphis business men are not likely to make the mistake of demanding that type of training, for they evidently want "brains," not "hands," developed for the industries of Memphis. For example, when they were asked what kind of training they thought should be given to the children, some replied "educate them, so that they can develop more by-products from our industries," or again, "train them in the principles of mechanics," or again, "teach them how to handle tools." In other words, these men recognized the importance of science and of general mechanical ability and adaptability as compared with the narrow training which leaves a worker useless to himself and to industry when his particular machine type of work is discarded.

In the second place, to anyone familiar with industrial conditions, a glance at the table of occupations shows that Memphis has definitely passed out of the category of the small town with a few shops where there is close connection between employer and worker and where one man does many different kinds of work. Such terms as "box nailer," "barrel stave cutter," "bolt cutter," "hardwood floor

grader," "hardwood floor layer," and "spoke turner" show the subdivisions and specialization of work that is characteristic of large, modern manufacturing establishments. And such development brings with it all the problems of modern industrial enterprise—problems that involve not merely a consideration of transportation facilities, raw material, cost and output, but also the relation of workers and employers. The world has moved rapidly in the past few years, and it is now a truism that in industrial organization the whole world is entering upon a new phase. There is a widespread recognition of the fact that the successful development of industry depends upon the spirit of mutual understanding and a sharing of responsible effort on the part of all engaged in industry.

In her agricultural development, Memphis has evidently recognized the importance of this mutual understanding and cooperation of all those engaged in agricultural production and distribution. What is she doing to develop this spirit in her industrial life? In the short time available for the survey it was impossible to make a thorough study of the subject, but the indications were that she was not applying the same foresight and thoughtful consideration to the subject of such cooperation in her industrial life. It was not so much that she was out of sympathy with the developments in this direction as that she had not realized their importance.

#### THE SOCIAL CONSCIOUSNESS OF MEMPHIS.

Memphis, throughout her history, has shown a spirit of daring enterprise and at the same time a tendency for deliberate, scientific planning for the future. She has taken stock of her weakness and of her strength and then set about improving her condition. Up to the present time, however, this spirit has been largely exhibited in connection with the material development of the town. Ultimately, however, the prosperity of the city depends upon the mass of the people of the city, upon their unity and mutual understanding, upon their intelligence, upon their good health, vitality, and industry. The development of these qualities in a community demands far more attention and scientific planning than is needed for its commercial development. It demands, in the first place, a recognition of the fact that there are social problems to be anticipated and solved. What are these social problems which Memphis faces? And what evidence is there that she recognizes them and is planning to meet them adequately?

It is evident that Memphis, as a rapidly growing trade center, is already confronted with the complicated civic, industrial, and social problems with which large industrial cities have been wrestling for years. The population is heterogeneous, mobile, attracted by the commercial prosperity of the town, but with few common bonds aside from

the desire to make a living. It is a group with various inheritances, different habits of thought, and different customs of living, of working, and of enjoying life. This means that soon the city will be split up into a collection of small communities as unrelated in sympathies and interests as though they were geographically hundreds of miles apart. This is the case in cosmopolitan cities like New York, Chicago, Detroit, etc. In these cities it was only after these conditions had become fixed that settlements, civic clubs, and community plans came into existence in the attempt to unify the diverse elements in the community and interpret them to each other.

Memphis has the opportunity to profit by the experience of these cities and to anticipate and prevent this disintegration of the city into separate units unrelated to each other by any common bond. But she will be obliged to act soon, for the separation of the different elements in the city is already apparent. For example, when the foreign-born parents were listed according to schools and compared with the total enrollment in the schools, it was evident that the largest proportion of foreign-born parents is found in the Smith School, the Leath, Cummings, and Merrill. In other words the foreign element is situated, as is usually the case, in or near the business section of the city. Cummings, however, in the southern section, has a total of 108 foreign-born parents, and a school enrollment of 677.

A further indication that the city is already tending to fall apart into different class groups is shown by the study of the occupations of the white fathers. Those of the same occupational groups tend to congregata in the same districts. For example, A. B. Hill, Lauderdale, Riverside, and St. Paul have the largest number of fathers working in transportation; Lauderdale alone has 66 locomotive engineers. On the other hand, Snowdon has only 4 workers in transportation, Smith 21, and Bruce 15. But Bruce and Maury have the largest number in trade, 143 and 115 respectively; while Smith (99), Leath (105), Merrill (102), Pope (105), Riverside (132), Guthrie (162), and Cummings (121) have the largest number of workers engaged in manufacturing. Bruce, Maury, and Snowdon have the largest number in professional and agricultural work.

It is natural, of course, for people of the same pursuits and interests to live near each other, but if a city is to have unity these groups must be drawn together by some common understanding and the recognition of common interests. Memphis does not yet fully realize this, for she is evidently not giving as much attention to her human problems, on either the social or industrial side, as she is giving to the problem of her commercial development. There is a very conscious recognition of the interdependence of the city's interests with those of the surrounding country, and such organizations as the Farm

Bureau and the Alluvial Land Association are evidence of the fact that time and thought are being spent on that problem. There is very little evidence, however, of the importance of developing an interdependence of interests among the different groups in the city. The best proof of this is that there is apparently little accurate information about social conditions in the city. The Farm Bureau makes a scientific study of facts; it knows what parts of the country should be developed; it sends out people to give definite advice about such development; it knows how many hogs were shipped last year and this year; it has that information by months; it knows the people who must be reached to develop the sale of "Home Butter—Made in the Tri-States."

But in regard to social conditions there is apparently no accurate information, even in regard to the total number of people in Memphis; no available record of the number in each school district; no available record of the number of workers in each establishment in each industry. The nearest approach to a social survey of the city is an investigation which was made by the War Camp Community Service in regard to the occupations, etc., of wage-earning women. This is a valuable piece of work which should be duplicated along many lines.

In the second place, not only is accurate knowledge of conditions necessary if the social and industrial problems confronting a city are to be anticipated, but there must also be as much time and thought spent on developing a spirit of mutual understanding among the various groups in the city as is now spent on developing the spirit of cooperation between city and country. Such understanding grows out of social intercourse, public discussion, and an opportunity to share in recreation and in the thrashing out of common problems. It would seem that little time or thought or opportunity is given to such matters. There are, to be sure, the usual social agencies and commercial clubs and organizations, but the experience of other cities is that these do not reach the mass of the people, and when a city has fallen apart into distinct communities or groups, unity comes only through local district organizations which are really representative of the people, not directed from the top down. But the very fact that there are few places for such organizations to meet indicates the failure of the city to function on that side. There is no common hall or meeting place in the city for public discussion, and only two evening recreation centers. There are two large parks at the extreme edge of the city, but only nine playgrounds available for recreation and meetings.

Probably two of the most effective social agencies in the city are the Parent Teachers' Association and the Cossitt Library. The first

does the local, detailed work among individuals in the districts which is so necessary for any real district organization. The second carries on a well-developed plan to reach all the people through its branches and its traveling libraries, and to make them feel that the library exists for them rather than that they exist for the library. It is a real social force in the community, the value of which can hardly be overestimated.

#### MEMPHIS ON THE THRESHOLD OF A NEW ERA.

Such is the social and industrial situation of Memphis. It is a growing commercial town, with alert intelligence and cooperative effort directing the commercial life of the city. But Memphis is standing upon the threshold of a new era. The generation of men who rebuilt Memphis after the disaster of 1878-79 laid a sound foundation for the future material welfare of the city. Their sons and daughters are now carrying on the work of building up the industries and agricultural possibilities of the town. They are doing it by virtue of their inheritance and training, which developed initiative, practical ability, and scientific knowledge. But their children—the present generation—are growing up in a modern industrial city with little of the opportunity for healthy work and play which gave their fathers their strength and ability. The survey of the city clearly indicates that, if the city is to grow and prosper socially and commercially, as much foresight and scientific planning must be spent upon the education of the children as has been expended upon the material development of the city. Conditions have changed, and education must be changed to meet these conditions. Are the schools of Memphis recognizing this fact? Are they giving the children of the present generation the type of education necessary to meet the changed social and industrial conditions of the city and to insure in them the development of the initiative, energy, practical ability, and scientific knowledge which modern education should give to children and which is needed for the fullest development of the children and for the welfare and prosperity of Memphis?

#### EDUCATIONAL NEEDS OF MEMPHIS BASED UPON AN ANALYSIS OF THE PRECEDING DATA.

The survey of the city clearly indicates that, if the best traditions of the community are to be continued and its present needs met in a way to lay the foundation for its future growth and prosperity, the people of Memphis are justified in asking that their children be given the type of education which will develop them along the following lines:

1. *Development of initiative and ability to think.*—It may fairly be said that Memphis would not have grown and prospered as it has if it had not been for the spirit of initiative, independent thinking, and practical ability in meeting new problems which characterized the builders of the city after the disaster of 1878-79. That spirit is Memphis's most precious heritage. Without it the future growth of the city can not be assured. Are the schools of Memphis tending to develop among their pupils the spirit of initiative and the habit of thinking for themselves? Does the teaching stimulate thinking or train merely in the capacity for answering questions? This spirit of initiative and practical ability was developed in the past generation because they faced the necessity of solving practical problems. Since then the city has grown, and with that growth much of educational value which was found on the farm and in the simple life of a smaller town has necessarily been taken away from the children. Are the schools of Memphis supplying this lack by so organizing the school work that the children have real problems to solve or only lessons to be learned?

2. *Knowledge of agriculture.*—It is a recognized fact that the study of agriculture and practical work in gardening has great educational value for children of any community. In the case of Memphis its practical importance is self-evident. The business men of Memphis contend that the prosperity and even the existence of the city are dependent upon the production and general prosperity of the surrounding country. This production and this prosperity are dependent upon a knowledge of scientific farming and of farm conditions on the part of the city as well as on the part of the rural community. What is needed is an educated public opinion. At present the Farm Bureau is spending much time, effort, and money to bring about such an educated point of view among adults. It is felt that the city should be able to count upon such knowledge in the rising generation.

Are the schools of Memphis educating the children in a practical knowledge of the part that agriculture plays in the life of any community, and particularly in the life of their own home city? How are they doing this? By textbook methods or by actual gardening and scientific study of soil, plants, etc.? Is this being done only in the high school or vocational school or is the mass of children in the elementary school, who never get to high school, receiving an opportunity for this work?

3. *Practical knowledge of science.*—No subject has greater educational value than the physical sciences, and none is more important in meeting the conditions of modern social and industrial life. To deprive children of practical scientific knowledge is to deprive them

of one of the tools of freedom. In the case of Memphis the practical importance of scientific training is self-evident. The statement "teach them to make something out of our wood and out of our by-products," was made by one of the lumber manufacturers of the city. As he pointed out, the *manufacturing* of Memphis grows out of the development of the by-products of the main industries and out of supplying the needs of the surrounding country. Memphis needs for its continued development a rising generation with the practical scientific knowledge necessary to develop the industrial life of the community on scientific lines.

Are the schools of Memphis giving training in chemistry and physics? Are they doing this by laboratory methods? Are they giving the opportunity for such courses only to children in high school or vocational school or is opportunity given to the children in the elementary schools, who will make up the large majority of the future citizens and workers of the city of Memphis?

4. *Practical knowledge of mechanics and ability to handle tools and machines.*—For years manual work in the public schools has been considered a necessary part of any thorough education for children, whether they are going into industry or the professions. The danger in communities where there is one single large manufacturing industry has sometimes been that manual work might be interpreted in too narrow and specialized a sense. In Memphis there is little danger of that because of the great diversity of industries. Because of this diversity and because of the constant change in types of machine and handwork it is obvious that what is needed is a thorough groundwork in the principles of mechanics, in the ability to handle tools and machines, and in the power to adapt from one type of work to another.

Are the schools of Memphis giving to the children training in practical manual work and knowledge of mechanics? Are they giving this knowledge only to children in the vocational school, or are they giving the foundation of it to the large majority of children in the elementary schools who will make up the mass of citizens and workers in the future? Are the schools providing for more intensive and thorough training for older children and for adult men and women?

5. *Knowledge of the principles of commercial-exchange, marketing, shipping, etc.*—How the products of a community are produced, marketed, and shipped has always been one of the chief subjects of study in geography in the elementary school. Memphis lends itself particularly to a rich treatment of that subject. It is a veritable mine of information and illustration for the teacher of geography and history and commercial work. As the city is a great distribut-

ing center, it should be able to count on a rising generation with (1) a thorough general knowledge of the commercial life of the city and (2) training for those older pupils who desire it in such subjects as office management, business methods, stenography, typewriting, and accounting.

Are the schools of Memphis, by a practical study of the industries and commerce of Memphis, in connection with their geography and history and arithmetic and English, developing a knowledge in the children of how the work of the world is carried on? Do they give training in office management, stenography, typewriting, bookkeeping, etc.?

6. *Physical health.*—American cities which reached their full development 20 or 30 years ago are now finding that in the building up of the city they omitted to take account of the necessity for healthful play and recreation for the children. They did not leave sufficient vacant spaces for playgrounds, recreation centers, etc., so that the next generation might not suffer for lack of the opportunity for physical development. The tendency in the average city has been to consider that one or two large parks provide this opportunity, thus ignoring the fact that under the stress and strain of modern city life the people must find their recreation and opportunity for physical development in their own immediate neighborhoods.

Is each school in Memphis providing opportunity for play for the children in its neighborhood every day? How often do the children get this opportunity for play and for how long at a time? Are supervision and playground apparatus provided?

7. *Social and civic development.*—It is evident that Memphis is weak in her development of the broader social life of the community. If serious social and industrial problems are to be avoided in the future, a means must be discovered for interpreting the different groups in the city to each other so that there may be understanding and a sense of common interests. Such a result will not come, however, unless there is some common meeting ground in each district where the people in that particular community may come to know each other, and where they may freely discuss their problems. And the place should be one which they feel is their own. The public school meets these requirements more nearly than any other organization. The school should be a real social force in the community not only for the education of the children in civic ideals but for the adults as well. Its doors should be open for recreation and for debate, for study and for play—an institution that functions in the life of every one in the district.

Are the schools of Memphis measuring up to these requirements? Are they developing a real civic spirit in both children and adults, giving them a knowledge of the best traditions of the city and of its present needs? Are they serving as a clearing house for the activities of both children and adults?

The survey report will answer these questions and show to what extent the schools are meeting the needs of the children and of the city, and in what way the system can be improved so as to meet these needs more adequately.

## CHAPTER II. SCHOOL ORGANIZATION, SUPERVISION, AND FINANCE.

CONTENTS.—1. Politics, the board of education, and the superintendent: Politics and the schools; nature of political activity; plan for nominating board of education; board and the superintendent; principles governing corporations; charter provisions; powers of board. 2. Qualifications of teachers, improvement, supervision, dismissal: Training; causes of low standards; "aid-teacher" system; eliminating the poor teacher; need of supervision; improving school corps. 3. Salaries of school employees: Present schedule; salaries compared; conditions essential to good teaching; savings of teachers; proposed salary schedule; superintendent's salary; salary of principals; janitors' salaries; a "school" for janitors. 4. Pupil promotions and failures: The present plan; failures in the grades; failures in the high schools; causes for nonpromotion? the formal examination condemned; plan recommended. 5. Ability to finance proposed program: Distribution of city expenditures; per capita expenditure on schools; tax rate; value of taxable property; attitude of taxpayers in Memphis. 6. Summary of conclusions and recommendations.

Believing that the people who know most about the conditions which prevail in the schools of Memphis are the principals and teachers who are working in the system, the survey staff, as soon as it arrived in Memphis, prepared a list of questions which was sent to every teacher and school officer in the department. This questionnaire was drawn up so as to elicit facts and opinions regarding matters of significance touching the preparation of teachers for their work; their experience; the conditions under which they are working; their salaries and their methods of procedure in conducting important phases of school work. Furthermore, each was asked to make whatever suggestions he cared to which he believed would help to better the conditions and the work.

The purpose of this questionnaire and the spirit in which it was issued are expressed in the letter which accompanied the blanks. This letter is quoted:

*To the Teachers, Principals and Supervisors:*

Please give the information herein called for with complete frankness. The survey does not enter the province of the individual teacher, as such, in any way. But it is necessary to get facts from individual teachers and to observe their work as individuals in order that valid conclusions of a general character may be drawn regarding the teaching work and the needs of the schools. You may, therefore, be entirely at ease respecting the survey and the visits of the members of the survey committee. The committee will be especially pleased to have each of you, including the principals and the supervisors, give a well-considered, frank reply to item No. 10. Your answers will

be held in complete confidence. As soon as you have filled out the blank, kindly place it in the accompanying envelope and mail. The envelope requires no postage.

Sincerely, yours,

THE SURVEY COMMITTEE.

Item No. 19, referred to in the above communication, as printed in the questionnaire, and which called for recommendations, is as follows:

Without discussing the matter with others, as you see the public-school problems of Memphis, what would you recommend for the improvement of the schools or of school conditions? Please enumerate briefly your most important recommendations.

#### NATURE OF THE REPLIES RECEIVED.

This request was responded to with frankness and intelligence, and for the most part with a commendable avoidance of the mention of the petty and annoying details which grow out of the personal friction which unavoidably arises in every situation where a number of persons are obliged to work together. The survey staff finds in these responses abundant reason for congratulating the teaching corps on the broad and comprehensive attitude which the members have taken in replying to this particular question.

While the entire range of school practice is covered in one way or another by the recommendations offered, many of the most important fall within the field of the organization, administration, and supervision of the system. Although it is impossible to discuss in detail every one of the suggestions offered, nevertheless the survey staff deems it of sufficient importance to enumerate a number of the more important recommendations and statements dealing with the administration of the system and to comment upon these.

#### 1. POLITICS, THE BOARD OF EDUCATION, AND THE SUPERINTENDENT.

##### SUGGESTIONS MADE BY TEACHERS.

- "Eliminate, if possible, politics from the school administration."
- "The Memphis public schools should be divorced from political influences."
- "No politics or religious factions in the schools."
- "A strong public school board who are school men, not politicians."
- "I would recommend that the schools be taken out of politics; that the superintendent, principals, etc., who are abreast of the times in education be elected and be allowed to remain in office until they are able to make their impress on the system."
- "Tenure of office not to be dependent upon politics, but upon ability and efficiency."
- "A board elected so that their term does not expire at the same time."
- "Superintendent and principals elected for their efficiency and not for political reasons. We have had a great many changes in the last few years."

"That the only qualification for appointment to a position, whether it be that of superintendent, principal, or teacher, be fitness for the work."

"Less of 'personal pull' and more attention to efficiency in the selection of teachers in the future than in the past."

"The elimination of city politics from control of the school system."

"Remove, if possible, all influence, directly or indirectly, of politics and politicians from the schools and place all teachers and principals on a 'civil-service' basis as to tenure of office. Protect them against injustice and ask better service of them."

"Divorce the system from politics and make the city superintendent the pedagogical head of the system."

"Get politics out of the school (from the janitor to the superintendent)."

"We have had too many changes of superintendents in the last 10 years. Each had his 'hobby,' and we followed his plan as long as he remained in office. The next year there would be something new."

#### POLITICS AND THE SCHOOLS.

Without any doubt, to an unusual and disquieting degree the schools of Memphis have been organized and administered on a personal and political basis rather than upon the impersonal one which seeks the answer to but one question, "What is best for the children of the city?" Unfortunately for the school population of Memphis this simple criterion for judging of the worth of any policy or practice has not always been kept in clear view. Other factors have entered into the discussions and have changed the conclusions reached.

For example, many teachers have found places in the classrooms of Memphis not because they measured up to publicly announced standards of training, education, and character, but because their names were quietly suggested to some member of the board or to the superintendent by a personal friend, by a city official, or by some person of actual or prospective political influence. In instances, so the staff was informed, this influence has been powerful enough to secure exemption from the examinations which all candidates for teaching positions are presumed to take. Again, teachers have been retained in the department not because they have demonstrated their success in the classroom—indeed, in instances principals and supervisors have reported unfavorably upon their work—but because they have been so thoroughly entrenched behind powerful influences that the superintendent and the board have not dared to attempt dismissal. The principals of the system are required each term to fill out a blank which calls for a confidential estimate of each teacher in their corps and to file it with the superintendent. But principals have informed the staff that they do not dare to be frank in their rating for fear the report will prove to be a boomerang. The office, too, of superintendent of schools has, in instances, been filled because of the personal and political influence of candidates rather than because they were able to measure up to the high standards which boards should demand.

of those filling this high office. Similarly, superintendents have been dropped not because they have not done creditable work, but because they have incurred the hostility of individuals of powerful influence either in or out of the board, who decided the question of retention or rejection not on the basis of impersonal principle but for indirect and devious and ulterior reasons.

#### THE NATURE OF THE POLITICAL ACTIVITY OF MEMPHIS.

The political activity of Memphis is not a contest between two great parties, but is a struggle for supremacy among various political factions, each held together by the personality of some strong individual who is recognized as a leader of his group. Memphis, therefore, in respect to its government is for the most part kept in a seething and unstable condition. The political faction which gains the ascendancy in municipal affairs is able to do so usually because of the fact that it has succeeded in creating a machine temporarily strong enough to place it in power. This machine is generally powerful enough likewise, to control the election of the board of education; consequently it has come about that the personnel of such boards has actually been selected, not by the people in their effort to secure representatives who will express the educational convictions of their constituents, but by the leader of the particular faction which chances for the moment to be in control of municipal matters.

To illustrate, the board of education which immediately preceded the present board was a board of five men nominally elected by the people, but actually selected and placed in office by the leader of the group then in control of city affairs. While, without doubt, the leader in power instructed the board to take the schools out of politics and to keep them out, and while unquestionably he kept his hands off the board and its policies, nevertheless the method by which the board was selected is not a method that can be indorsed. In this instance it was fortunate that the leader of the political group in power was high-minded enough to recognize that the schools should be freed from politics. Nevertheless, a method of selecting boards of education should be employed which will take them out of the hands of a single individual, for it is impossible with the changing currents of political control to expect that politicians who have this exalted view of education shall always come into power. The only method by which this result can be insured is to insist that the selection of the personnel of boards of education and, in turn, of members of the school corps, including the superintendent, shall be removed absolutely and unequivocally from the struggle among factions for control of city government.

## A PLAN FOR NOMINATING CANDIDATES FOR THE BOARD OF EDUCATION.

It would therefore seem desirable that the matter of nominating candidates for boards of education should be intrusted to a large committee, perhaps 100 in number, made up of representative men and women chosen for the purpose from the various civic bodies in the community which are working in a nonpolitical way for the betterment of conditions and for the progress of the city. Such a committee, coming together for the purpose of inviting representative men and women of the community to stand before the public as candidates for a place on the board of education and guaranteeing such candidates their support, would serve to induce men and women to take places on the board who, under present conditions, with various tickets in the field, backed by political machines, would be unwilling to permit their names to be used.

## THE BOARD AND THE SUPERINTENDENT.

A board of education whose personnel is selected in some such manner as this, would take office absolutely unpledged in respect either to persons or to policies. After making a careful study of conditions as it found them, it would seek in open discussion to block out in outline a constructive policy, broad, consistent, and planned to cover a period of years, in the light of which plan every detail as it arises would fit in as into a harmonious whole. Such a board, again unpledged either as to individuals or as to policies, would be able quickly to differentiate between the cross-currents of opinion in the community and the great main stream of desire which flows steadily onward and which it should seek in its actions to define, to interpret, and to express. Such a board, too, it is to be hoped, would recognize clearly that there is a clear-cut line of demarcation between its own proper functions and the functions of the office of the superintendent. It would doubtless recognize that this matter of relationship between a board of directors and its chief executive and his corps of officers has already been well worked out in business practice; it would recognize that the primary function of a board is not executive but administrative and legislative, and that it can best serve the people of the city by determining policies and not by occupying its attention with the minutiae of details necessary to carrying defined policies into execution. It would see to it, too, that the superintendent of schools, its chief executive officer, is an expert in all matters pertaining to school policy and practice; a person of vision, abreast of present-day educational thought, with qualities of tactful initiative, and who thereby is in a position to give the board expert advice with respect to details. With such an executive officer,

together with a corps of subordinates, each an expert in his or her particular field, the board of education could well content itself with giving consideration to the reports of these officers, passing upon policies, and leaving the execution of the details to the superintendent and his experts.

This is the method which successful business houses have adopted, and it is the only method which will bring success in the immense business enterprise of conducting a city school system. Any other method employed means that members of boards of education are undertaking to do what they are not properly qualified to do and for which they should secure expert service. Too frequently, in Memphis, in consequence of a failure to recognize this distinction between the proper function of the board of education and of the superintendent and his corps, there has been witnessed the anomalous situation of the existence of six superintendents with divided and confused authority instead of a board of education consisting of five members expressing its will through a single, forceful, and effective superintendent.

Furthermore, in progressive school administrations it is recognized that members of boards of education, as individuals merely, have no more authority in school matters than have citizens of the community. This is a fact frequently overlooked both by members of boards of education and by citizens and teachers. Only in their official capacity as members of a corporate body, duly and properly elected by the citizens of the community, have board members any peculiar authority or jurisdiction, and yet the reason which impels citizens, teachers, and others to take their troubles to individual members of the board is the thought that such individuals, by reason of the fact that they chance to be members of the board of education, somehow have greater power than other individuals in the community.

Boards of education ought always to insist that the right of appeal be permitted any individual who feels that his petition has not received proper or just consideration. Obviously, however, most of the requests which arise in connection with the administering of a city system of schools can and should be handled by the superintendent, his assistants and supervisors, and by the principals and the teachers. Matters of detail should be carried to the board of education only when the individual feels that he has not received justice, and this right should always be insisted upon. But, it should be added, such appeals should be made to the board as an official body and not to the individual members who chance for the moment to constitute the personnel of the board, and it should further be added that the final decision on such matters of appeal should be based not upon personal, political, or religious considerations, but

upon the basis of right and justice and fair dealing and upon the final consideration as to what will operate to conserve and promote the educational interests of the children of Memphis.

#### THE PRACTICE OF THE PRESENT BOARD.

One member of the present board, apropos of this failure to insist that all matters of detail be handled by the superintendent and his corps, remarked that there were three doors to his office—the front door, the rear door, and the side door—and that teachers and citizens used all three to get to him with their troubles. Another member of the present board stated that he estimated that 500 different individuals had been to him at his office with various matters of detail within a short period.

While this willingness to listen to such details speaks well for the sympathetic desire of each member of the board to be of service, yet it is a mistaken attitude which grows out of the failure to recognize, both by members of boards of education and the citizens, that this is not the efficient way of conducting the business of a school department. Tactfully but firmly the members of the board should insist that all these details be presented first of all to the superintendent and his assistants; only in the event that satisfaction has not been received should these matters be permitted to come to the attention of the board of education. There should be no back stairs into the board of education, and no working under the table, but all decisions should be open decisions, openly arrived at. In no other way can the school affairs of the city of Memphis be worked out on the broad basis of principle rather than upon the basis of personal, political, and ulterior considerations.

#### THE BOARD OF EDUCATION AND DIRECTORS OF CORPORATIONS GOVERNED BY SAME PRINCIPLES.

Probably no clearer or sounder statement of principles defining the functions of a board of education and its proper relation to its technical experts has been formulated than that made by Dr. Franklin Bobbitt, of the University of Chicago, under the caption, *General Organization and Management of Public Schools*, in the report of the survey of the schools of Denver. Dr. Bobbitt emphasizes the fact that the best principles of business management applicable to a business corporation and the principles that should govern the business management of a school corporation—that is, of an incorporated public school system—are the same. He points out that the functions of a board of education or of school directors is in every way identical with the functions of a board of directors of a business

corporation; that the principles of good management in the school world are identical with the principles of good management in the business world.

For purposes of comparison and to impress this analogy, Dr. Bobbitt has set forth in parallel columns the principles of administration which should govern the two types of corporations—business and education—as follows:<sup>1</sup>

PRINCIPLES OF ADMINISTRATION TO GOVERN CORPORATIONS.

<i>Manufacturing corporation employing 1,500 people.</i>	<i>School corporation employing 1,500 people.</i>
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I.

The owners, called stockholders, select a board of directors, whose function is solely representative. Their only duty is to serve the best interests of those whom they represent.

I.

The owners, called citizens, select a board of education, whose function is solely representative. Their only duty is to serve the best interests of those whom they represent.

II.

The stockholders are laymen with respect to the specialized labors to be performed, and the directors are also laymen. Neither stockholders nor directors are familiar with the specialized technique involved in the work. They do know the results that they want, and they know there are men familiar with all the technical processes involved in getting these results. They employ, therefore, a trained and experienced specialist of this character, the strongest that they can find, for their executive. They call him their general manager.

II.

The citizens are laymen with respect to the specialized labors to be performed, and the members of the board of education are also laymen. Neither citizens nor board members are familiar with the specialized technique involved in the work. They do know the results that they want and they know there are men who are familiar with all the technical processes involved in getting these results. They employ, therefore, a trained and experienced specialist of this character, the strongest that they can find, for their executive. They call him their general superintendent.

III.

The board of directors, after careful consideration of conditions and possibilities, and in constant consultation with their executive, make decision and announce to their executive the general policies that they wish adhered to.

III.

The board of education, after careful consideration of conditions and possibilities, and in constant consultation with their executive, make decision and announce to their executive the general policies that they wish adhered to.

<sup>1</sup> Reprinted from San Francisco Survey Report, Bu. of Ed. Bul., 1917, No. 46, pp. 83-88.

iv.

The executive draws up detailed plans for every department of the work. This covers the general form of organization of the personnel to be employed and the series of processes to be performed in each department.

The plans will show—

- The number of assistant managers.
- The duties of assistant managers.
- Special departmental heads.
- Specialists in technical processes.
- The foremen to be employed.
- The number and types of workmen.
- The duties to be assigned to each.
- The series of processes to be performed.
- Buildings needed, and the building plans demanded by the work and the exact building equipment for the work.
- The machinery and other equipment that will exactly serve for the best type of work.

The board of directors will consider the detailed plans presented by their executive to see, so far as they can, whether the plans conform to the general policies adopted. If they do conform, they approve. If they do not conform, they point out the divergencies and ask their executive to make amendments to his plans. This process will continue until the detailed plans conform to general policies.

If during this process there is serious disagreement between the board and executive, the board will call in a competent consulting specialist, whose competence can be approved by their executive, to advise with them.

iv.

The executive draws up detailed plans for every department of the work. This covers the general form of organization of the personnel to be employed and the series of processes to be performed in each department.

The plans will show—

- The number of assistant superintendents.
- The duties of assistant superintendents.
- Special departmental heads.
- Special supervisors.
- The principals to be employed.
- The number and types of teachers, engineers, etc.
- The duties to be assigned to each.
- Courses of study and methods of procedure.
- Buildings needed, and the building plans demanded by the work and the exact building equipment for the work.
- The textbooks, library, and supplementary books, supplies, shop equipment, furniture, etc. that will exactly serve for the best type of work.

The board of education will consider the detailed plans presented by their executive to see, so far as they can, whether the plans conform to the general policies adopted. If they do conform, they approve. If they do not conform, they point out the divergencies and ask their executive to make amendments to his plans. This process will continue until the detailed plans conform to general policies.

If during this process there is serious disagreement between board and executive, the board will call in a competent consulting specialist, whose competence can be approved by their executive, to advise with them.

VI.

The general manager will nominate men for his assistants and for his major departmental heads. The board may or may not pass upon these nominations before the men are employed. If the board is assured of the competence of its executive, it knows that he can choose these departmental heads with greater assurance of good judgment than can they. They realize that they can not even pass rationally upon his nominations without the aid of independent competent consulting specialists. They have placed the responsibility upon their general manager for results. They will never hamper him by refusing men he wants unless there is incontestable proof of the unfitness of these men. His recommendation of such men is proof of his unfitness. The board will therefore never, or practically never, veto a nomination made by their general manager. Always when they are called upon to exercise such veto they must consider whether they do not need a new general manager.

VII.

The general manager, in consultation with his assistants, department heads, and specialists in processes, employs foremen and workmen.

The board of directors does not pass on these nominations. It is a principle of business management that responsibility is actually placed upon general manager and department heads only in so far as they are given full control over all means to be employed in doing the work. The qualifications of foremen and workmen constitute one of the most important of the means that is to be placed under the full control of the overhead management, as they are commissioned to get results. Neither the stockholders nor the board of directors care who does the work. Sim-

VI.

The superintendent will nominate men for his assistants and for his major departmental heads. The board will exercise its rights and duties of antecedent inspection of these nominations before appointments are made. This is to make assurance doubly sure. If the board is assured, however, of the competence of its executive, it knows that he can choose these departmental heads with greater assurance of good judgment than can they. They realize that they can not even pass rationally upon his nominations without the aid of independent competent consulting specialists. They have placed the responsibility upon their superintendent for results. They will never hamper him by refusing the men he wants unless there is incontestable proof of the unfitness of these men. His recommendations of such men is proof of his unfitness. The board will therefore never, or practically never, veto a nomination made by their superintendent. Always when they are called upon to exercise such veto they must consider whether they do not need a new superintendent.

VII.

The superintendent, in consultation with his assistants, department heads, and special supervisors, nominates principals, teachers, janitors, engineers, physicians, nurses, clerks, etc.

Again to make assurance doubly sure that no mistake is made, the board exercises its antecedent inspectorial powers and approves or disapproves all nomination before appointment is made. The board conforms to the cardinal principle of business management stated opposite by never vetoing a nomination made by their superintendent unless there is evident and incontestable proof of unfitness on the part of the one nominated, as approved by a competent consulting specialist called in to advise the board.

ply they want it done, and done well. It is not a principle of business management for the board of directors to approve the names of the individual workmen who are to be employed.

They do not consider even the possibility of a veto.

## VIII.

The board of directors places at the disposal of their general manager all funds needed for the conduct of the work as embodied in the budget drawn up by their executive on the basis of the plans of work approved by the board. The expenditure of the itemized funds of the budget is left to the general manager and his assistants. Only in matters of large moment will the board use its privilege of antecedent inspection of budgetary expenditures.

## IX.

The general manager and his corps will do the work according to the plans and specifications approved by the board. They will operate and control all the means that have been placed at their disposal by the board.

The board will not interfere in any of the acts on the part of any members of the factory organization.

## X.

At stated intervals the board will require of its general manager an account of his stewardship. They will ask for reports on finance, equipment, materials purchased, materials consumed, materials on hand, stock manufactured and sold, stock on hand, cost accounting in the various departments, efficiency reports, etc.

The board will examine these reports and compare them year after year, compare them with similar reports of other factories if such are obtainable, etc.

where doubts have arisen as to the competence of, their superintendent's ability to nominate.

At the same session they will consider the advisability of employing a stronger superintendent in whose recommendations they can place confidence.

## VIII.

The board of education places at the disposal of their superintendent all funds needed for the conduct of the work as embodied in the budget drawn up by their executive on the basis of the plans of work approved by the board. The expenditure of the itemized funds of the budget is left to the superintendent and his assistants. Only in matters of large moment will the board use its privilege of antecedent inspection of budgetary expenditures.

## IX.

The superintendent and his corps will do the work according to the plans and specifications approved by the board. They will operate and control all the means that have been placed at their disposal by the board.

The board will not interfere with any of the acts on the part of any members of the school organization.

## X.

At stated intervals the board of education will require of its superintendent an account of his stewardship. They will ask for reports on finance, equipment, materials purchased, materials consumed, materials on hand, instructional results, attendance, promotions, failures, graduates, cost accounting in the various departments, efficiency reports, etc.

The board will examine these reports and compare them year after year, compare them school with school and with corresponding reports from other cities.

If, as judged by these comparisons, the board is satisfied as to results, they will ask that the work continue as it has been going. They will not demand improvements, though they will encourage inventions and discoveries that look to improvement. With things thus going well, they will place all possible power in the hands of their general manager, so that he can improve the work if he can find the means.

When the board finds shortcomings revealed in the reports they will demand explanations that explain. If satisfactory they ask for recommendations from their general manager as to changes needed in general policy or in the details of policy. They will grant what is needed if it promises remedy; they will back up his labors as fully as they can, and then they will stand aside and let him bear the responsibility for results.

If he fails again, or if his first failure was serious, after having been given sufficient time and sufficient power for success, the board of directors will let him go; and they will take on a new general manager.

Their policy must be to dismiss the weak man and to hold on to the strong man.

xi.

At stated times, or at any time when conditions appear to demand it, the stockholders will require of their representative board of directors an account of their stewardship.

They will ask for reports as to the general policies followed, the reason for these policies wherever serious questions may arise, and for all inspectorial reports of all kinds enumerated in the foregoing section.

This practice is not universal yet in the business world—not even common. But it is growing in extent and frequency, and is recognized as a necessary principle of sound management when the management is intended eff-

If, as judged by these comparisons, the board is satisfied as to results, they will ask that the work continue as it has been going. They will not demand improvements, though they will encourage inventions and discoveries that look to improvement. With things thus going well, they will place all possible power in the hands of their superintendent, so that he can improve the work if he can find the means.

When the board finds shortcomings revealed in the reports they will demand explanations that explain. If satisfactory they ask for recommendations from their superintendent as to changes needed in general policy or in the details of policy. They will grant what is needed if it promises remedy; they will back up his labors as fully as they can, and then they will stand aside and let him bear the responsibility for results.

If he fails again, or if his first failure was serious, after having been given sufficient time and sufficient power for success, the board of education will let him go; and they will take on a new superintendent.

Their policy must be to dismiss the weak man and to hold on to the strong man.

xi.

At stated times, or at any time when conditions appear to demand it, the citizens will require of their representative board of education an account of their stewardship.

They will ask for reports as to the general policies followed, the reasons for these policies wherever serious questions may arise, and for all inspectorial reports of the kinds enumerated in the foregoing section.

This practice is not universal yet in community supervision of their boards of school directors. It is not even common. But it is growing in extent and frequency, and is recognized as a necessary principle of sound man-

ciently to serve the interests of the stockholders.

If the stockholders approve, they will sustain their board in all of its acts. They will give it all the support that they can.

If the stockholders disapprove, they will ask for changes in the matters disapproved. The board will make itself cognizant of their wishes as fully as possible, accept all means placed at their disposal for the improvement in the work, and inaugurate the new policies required or make the necessary amendments to the old.

If, after the wishes of the stockholders are made known to the board, the latter continue negligent or derelict, or if their failure to serve the best interests of the stockholders has been serious, they will be promptly relieved of their stewardship and more faithful representatives placed in their stead. The policy of the stockholders must be to relieve only those who prove negligent or unfaithful. They must not dispense with experience of the right sort. But unfaithful directors will be relieved of their responsibilities.

They will hold on to the service of faithful board members to the last extremity.

agement when the management is intended efficiently to serve the interests of the citizens.

If the citizens approve, they will sustain their board in all of its acts. They will give it all the support that they can.

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If, after the wishes of the citizens are made known to the board, the latter continue negligent or derelict, or if their failure to serve the best interests of the citizens has been serious, they will promptly be relieved of their stewardship and more faithful representatives placed in their stead. The policy of the citizens must be to relieve only those who prove negligent or unfaithful. They must not dispense with experience of the right sort. But unfaithful directors will be relieved of their responsibilities.

They will hold on to the services of faithful board members to the last extremity.

#### ATTITUDE OF THE NATIONAL EDUCATION ASSOCIATION.

The same principles are embodied in the "Report of the Committee on the Relation between Boards of Education and Superintendents" adopted by the Department of Superintendence of the National Education Association at its meeting in Kansas City in February and March, 1917.

The following quotations from sections 3, 6, 7, 8 and 9 of this report reinforce Dr. Bobbitt's statement in the report of the Denver survey and bear directly upon the situation in Memphis:

Section 3. The representatives of the people can not perform directly the large duties of carrying on the school system. They must employ technically trained officers to conduct the schools. To these technically trained officers they must look for proper information on which to base their decisions, and they must be prepared to intrust to those officers the powers and responsibilities which attach to the daily conduct of school work.

There is little doubt on the part of all communities that technical training is necessary for the proper conduct of schools, but the exact definition of the sphere within which technical training is needed is not yet worked out in most systems.

A series of concrete examples may therefore be offered as illustrating the type of duty which board members can not properly perform. No board member should teach classes. No board member should act as principal of a school. No board member should negotiate with a publisher of textbooks, nor should pass on the availability of a given book for use in a school. No board member should examine teachers with a view to determining their qualifications for appointment. No board member should plan a school building. No board member should write the course of study. Even where individual cases may arise in which particular members of certain boards would have the ability to perform these tasks, it is better that a well-established division of labor should be recognized. It is the duty of the members of the board to see that technical officers do the work of the system, but the board should not do this work itself. It is a public board, created to see that a certain piece of public work is done, not a group of technical officers created to do the work.

The safe analogy in this case is the analogy of the board of directors in a business corporation. No one can imagine a director of a railroad stopping a train and giving the engineer and the conductor orders about their duties. It ought to be possible to organize and define the technical duties of a school system and to distinguish them from the broad duties which reside in the representatives of the people.

Sec. 6. The technical officers of the school system will be most harmonious in their activities if they are placed under the supervision of a single head or manager who is the executive head of the system. This central supervisor should have the responsibilities and the rights which will make possible a compact organization of the working force in the schools.

Sec. 7. The superintendent must be a man of superior training. He must be prepared to report plans of organization and to make a clear statement of results. He should organize the officers under him in such a way as to secure from them in detail an efficient type of organization, and he should secure from them adequate reports on which to base the statements which he presents to the board.

Sec. 8. In the performance of these functions the superintendent has a right to the initiative in technical matters. Specifically, he should have the sole right to perform the following: (a) Recommend all teachers, all officers of supervision, and all janitors and clerks; (b) work out the course of study with the cooperation of the other officers of instruction; (c) select textbooks with the same cooperation; (d) have a determining voice in matters of building and equipment; and (e) draw up the annual budget.

These technical recommendations should always be reviewed by the board, and the approval of the board should be a necessary step for final enactment. This will insure the careful preparation of reports and the careful study of results. The superintendent is not to be authorized to conduct the system apart from the board, but he should be insured by definite forms of organization against interference which will defeat his plans and divide his responsibility.

Public business suffers when these technical matters are improperly handled. Let us assume two cases. In the first case the superintendent may be inefficient, and the board or some other active agency may cover over his inefficiency for a time by doing his work for him. The result will be disastrous in the end.

It would be better for public business to bring the inefficiency to the surface as quickly as possible and remove the officer who can not conduct the system properly. In the second case the superintendent is efficient, but is hampered by lack of definition of his functions. The school system will lack in unity of organization and in harmony of internal operation. The system will be defective in so far as it is divided against itself.

Sec. 9. In the relations of the board to all officers of the system it is essential that appointment, reappointment, dismissal, and promotion be removed from the interference of petty influences, and that all such transactions be based on records which are systematically organized and supervised.

There is no clearer indication of the condition of a school system than the attitude of the teachers and other officers to their duties and to the results which they are securing. The school system which is well organized exhibits cooperation on the part of all its officers. The interests of the public suffer beyond measure when appointments are the result of illegitimate personal influences.<sup>1</sup>

#### CHARTER PROVISIONS RESPECTING THE BOARD.

The charter provisions respecting the board of education in several important particulars are unfortunate. In the first place, the five members of the board, elected for a term of four years, all go out of office at the same time. This means that a new board may come into office knowing nothing about the schools or about the policies inaugurated by former boards and which it may be highly desirable to retain. Under the present arrangement it is too easy for a new board unwittingly and through ignorance of conditions to allow policies to lapse which have been inaugurated only after strenuous endeavor. Furthermore, the school corps is always uncertain as to a continuation of policies already entered upon.

A majority of the members of every new board ought always to comprise those who hold over and whose presence will, in consequence, insure a continuity of policy. The citizens of Memphis, therefore, should take steps to bring the matter to the attention of the legislature, insisting that the city charter of Memphis, under which the schools are conducted, should be amended to provide a board the terms of whose members shall expire at different periods, thus avoiding the present anomalous and demoralizing condition of having the entire board terminate work at the same time. Moreover, the mistake which now obtains of electing a new board 14 months before it takes office should be corrected.

#### A LARGER BOARD NEEDED.

Furthermore, in making changes in the charter respecting the organization of the board, the survey committee suggests the desirability of increasing the number of members from five, as at present, to seven. It is too easy in a board of five for four to pair off on

<sup>1</sup> Reprinted from the San Francisco Survey Report, Bu. Ed. Bul., 1917, No. 46, pp. 83, 89.

questions of policy, leaving the fifth holding the balance of power and often in practice determining the policies of the board. It is not so easy with a board of seven members to hold to a uniform alignment of members which permits a single individual to determine the board's action.

We would therefore recommend a further charter change, namely, upon the expiration of the term of office of the present board that it be increased to seven members, whose terms of office shall be six years, except that at the first election two members shall be elected for two years, two for four years, and three for six years. Provision should be made for an election every two years after the first election for either two or three members, as the case may be, each, however, to be elected for the full term of six years. By this arrangement the majority of the seven members will always consist of members who have had experience on the board, and at no time will there be normally an influx of new members in sufficient number to control the board. At the same time, an election held as often as once in two years will insure to the people that changes in the desires and wishes of the public will be given opportunity for expression through the changing membership of their board representatives. Such elections, it should be added, for obvious reasons should be held at times other than upon the dates set for the regular municipal elections.

#### SHOULD THE SCHOOL BOARD BE PAID?

Under the present arrangement the president of the board of education and the chairman of the committee on buildings and grounds receive an annual salary of \$600 each, and each of the other members, \$480. A recent examination of 46 of the important cities of this country<sup>1</sup> shows that in only 6 cities besides Memphis are boards paid anything for their services. San Francisco pays each of its members \$3,000 per year and requires that they give full time to school duties; Milwaukee pay \$3 for each meeting, with a limit of \$100 a year; Los Angeles pays \$10 for each meeting, with a limit of \$50 per month; Oakland pays \$10 for each meeting, with a limit of \$40 per month; Salt Lake City pays \$100 per year; and Rochester, N. Y., \$1,200 per year.

Clearly the prevailing practice, as well as the weight of public opinion, is overwhelmingly against the paying of even nominal salaries or fees for attending meetings. Undoubtedly this feeling is based upon the belief that the services of a higher type of citizen can ordinarily be secured where no pay is given than obtains if pay is provided. Unfortunately, even the paying of but a nominal fee attracts some who but for it would not be interested in the work of

<sup>1</sup>In the *Survey of the San Francisco School System*, Bu. of Ed. Bul., 1917, No. 46, p. 80.

the board. Obviously, people who have no more interest in the schools than this should not be permitted to take office. On the other hand, experience shows that the public-spirited citizen who has the welfare of the schools at heart will not be deterred from serving on this board of education through a failure to pay a salary or fees. We would recommend, therefore, that when the charter is next amended the provision which authorizes the paying of a salary to the members of the school board be abolished.

#### THE POWERS OF THE BOARD.

One other charter change should be made, i. e., a change which will empower the board of education to levy taxes for the support of the schools. The board's limitation in this important respect means, of course, that it is not an independent body. It has neither full and final power, nor full and final responsibility, in its control of the schools, for its estimates of the amount needed for the support of the schools is passed in review by the city council, which may or may not grant the amounts called for. Thus the power of the board of education to carry out its plans for the extension and improvement of the schools depends upon the action of an independent body which can have no such intimate knowledge of the schools' needs as has the board of education. The board of education, therefore, is unable to formulate any definite policy with the certainty of being able to put it into operation; and, as a consequence, it can not properly be held completely responsible for any inefficiency of the school system which may develop.

More and more throughout the country it is recognized that the efficient administration of city schools demands that boards of education be given full control over the educational, business, and financial affairs of the school system. That is to say, the tendency in practice is to make city boards of education entirely independent of all other branches of city government; and this should be brought about in Memphis. The board of education of Memphis should be given the power to levy, within statutory limitations, a tax sufficient to maintain its schools on a plane of high efficiency.

The foregoing charter changes, together with the adoption of the method of nominating candidates for the board by a representative body of citizens drawn from the membership of the various civic organizations of the city, as heretofore suggested, will go far, it is confidently believed, toward lifting the schools of Memphis out of politics and placing their administration, instead, on the broad and high plane of impersonal principle. At the same time there will be insured the while a high level of intelligent citizenship in the personnel of the men and women who take places on the board.

2 QUALIFICATIONS OF TEACHERS, THEIR IMPROVEMENT, SUPERVISION, AND DISMISSAL.

SUGGESTIONS MADE BY TEACHERS.

"Improve the teaching corps in every possible way. They are the keystone of the work."

"Require more than a high-school education for teachers."

"Too many inexperienced teachers, whose educational attainments are below a fair standard, can be found in these schools."

"There should be some professional training required of applicants before they are assigned to duty."

"I don't like the 'aid system.' I for one don't want to have to teach the 'aid' in addition to doing all the other work."

"Supervision that would be genuinely helpful to the weak or inexperienced teacher."

"A live assistant superintendent to have supervision of all elementary schools."

"A grammar grade and primary supervisor—one for each department."

"Primary supervisor reinstated."

"The use of several live-wire supervisors."

"It seems to me that we should be visited at least twice each term by a supervisor."

"A wide-awake, broad-visioned assistant superintendent. Expert supervision for all the grades of the elementary schools. Two supervisors of unquestioned ability."

"A primary supervisor who will make out definite outlines for teachers to follow and visit rooms to see that her outlines are followed, and to give any assistance needed to all teachers in her department."

"Principals whose scholastic and professional qualifications particularly fit them for positions of leadership."

"Make the general monthly meetings of teachers of so vital interest to them in the subjects or classes that they teach that they will look forward to them with enthusiasm rather than as that much time lost."

"More visiting of classroom work by principals. Mine has not been in this year. His knowledge of my work is all second hand."

"Better training of principals as organizers and supervisors."

"Heads of departments in the high schools. Heads to be college graduates."

"Pedagogical training required of all teachers before beginning school service."

"A stronger foundation can be secured by placing experienced teachers in the lower grades. Do away with aids, and place a teacher over each half of these foundation grades."

"Do away with two teachers 'holding forth' in the same room at the same period. Concentration can never be secured when this is the condition."

"Training of inexperienced teachers in some other way than by the classroom teacher."

"Encourage teachers to visit schools, to strengthen themselves by correspondence courses or summer study, and to broaden themselves by travel—extra credit or special recognition to be given for professional growth."

"In view of the fact that the very large majority of the colored teachers have had little or no specific professional training, and that it would be impossible for the board to dispense with their services—to say nothing of the charge of injustice they might make—the most effective step to secure coordination in the work and to give incentive to the teachers to improve

themselves—and thereby the standard—is the immediate appointment of a competent supervisor for the colored schools who will operate immediately with and under the superintendent."

"Evolve a plan for eliminating the hopelessly poor teacher or principal from the system, and of improving all others."

"Better training of principals as organizers and supervisors."

"Better trained principals and teachers."

"Competent heads of such departments as language, science, mathematics, history, and civics, so that there will be a progressive line of training throughout grades and high school."

"Raise the standard of scholarship for teachers and select teachers because of their value as teachers. Elect a larger number of male teachers. Give heads of departments a voice in the selection of teachers for their respective departments."

"Each teacher a college or university graduate."

"Principals and teachers elected for a term of three to five years."

"Better organization of departments, with a recognized head for each."

"Insist upon more thorough and more expert supervision."

"The elimination of poor teachers after a sufficient trial is recommended."

"A two-year training course for teachers after finishing high school."

When the schools closed in June, 1919, the rolls showed the following distribution of teachers:

TABLE C.—Number of teachers (regular teachers, aids, special teachers), by schools, on the roll at the close of the year 1918-19.

Schools.	Number of regular teachers.	Number of aids.	Number of special teachers.	Total number.	Schools.	Number of regular teachers.	Number of aids.	Number of special teachers.	Total number.
<b>WHITE SCHOOLS.</b>					<b>COLORED SCHOOLS.</b>				
Bruce	20	5	2	27	Caldwell	6			6
Central High School	45		8	53	Carnes	13	3		16
Church Home	2			2	Charles A.	3			3
Comolongs	18	3		21	Grant	21	3		24
Cordon	13	2		15	Greenwood	11	2		13
Guthrie	15	4		19	Kendrick	11	1		12
A. B. Hill	22	5		27	Kortrecht High School	19			19
Idlewild	17	4		21	Kortrecht Grammar School	18	1		19
Lauderdale	23	2		25	La Rose	23	3		26
Leath	19	2	1	22	Porter	12	1		13
Leath Orphanage	1	1		2	Virginia Avenue	15	4		19
Lenox	13	2		15	Total	153	18		170
Madison Heights	13	1		14	Grand total	630	70	11	630
Maury	18	2		20					
Merrill	18	1		19					
Open Air	1	1		2					
Peabody	17	5		22					
Pope	18	3		21					
Riverside	21	3		24					
Ruelle	19	1		20					
Smith	13	1		14					
Snowden	12	1		13					
St. Paul	9	3		12					
Vocational High School	18			18					
Jefferson Street	2			2					
Total	387	52	14	450					

Of a total of 636 teachers, principals, and supervisors in the department, to whom the questionnaire asking for information con-

cerning training, experience, etc., was sent, a total of 638 responded—399 elementary white, 157 elementary colored, 69 secondary white, and 13 secondary colored.

#### PREPARATORY TRAINING OF WHITE TEACHERS.

Of the 399 white teachers and principals in the elementary schools responding, 128, when elected to the department, had received less than the equivalent of a four-year high-school course; 191 had received the equivalent of a full four-year high-school course, but nothing more; 65 had received some college training in addition to a high-school course or its equivalent, while but 15 had both a high-school course and a full college course at institutions of recognized standing.

As to the professional training for teaching, of the 399, 194 came into the Memphis schools without any normal-school work or work of a professional character at all; 161 had spent less than two years at a normal school, many of these having taken no more than one or two summer sessions, while 44 had the equivalent of a full two-year normal-school course.

It is interesting to note that nearly one-half of those responding, 189 to be exact, were graduates of the Memphis schools. Of these 189 local graduates, 106 entered the department without professional training of any kind; 80 had had some normal-school work, usually one or two summer sessions, while 3 reported that they had taken a two-year course at Peabody College for the Training of Teachers.

Of the teachers of the white high schools, 69 in number, 14 reported that upon entering the department they had received nothing more than high-school training; 35, in addition to high-school work, had received some college training, usually at summer sessions, while 20 stated that they were graduates of reputable colleges and universities at the time they were elected to positions in the schools.

#### SUMMARY OF THE TRAINING OF WHITE TEACHERS.

From the foregoing it is clear that the academic preparation of approximately 80 per cent of the elementary white teachers when they entered the schools of Memphis was limited to a four-year high-school course or less, and that only 20 per cent had received any academic training beyond that of high-school grade. Furthermore, nearly 50 per cent of the elementary teachers began their work without any professional training of any kind. Of the remaining 50 per cent, the professional training was limited to one or two sessions of summer normals, while only about 10 per cent brought to their work at its beginning the training given by a two-year course at a reputable normal school.

Moreover, 206 teachers, a little more than half of those reporting, state that they had had no teaching experience whatever before entering the school system of Memphis, while 43 others had not taught more than two years.

As to the white, high schools the facts show that 20 per cent of the members of the teaching corps at the time of their selection had received only a high-school training; 50 per cent had done some college work, for the most part at summer sessions; 30 per cent only were graduates of colleges of standing; while a third of the entire number had no teaching experience.

The facts, therefore, show that only about one-third of the teachers of the white high schools of Memphis, when they were elected, measured up fully to the standard of preparation which good high schools of the country are insisting upon, namely, graduation from a college or university of recognized standing. It is not surprising, in view of this situation, that the Central High School should have failed to be accredited by the Southern Commission of Colleges and Universities. As rapidly as possible these teachers now in the high schools who are there owing to laxity of superintendents and boards or because of personal relationships, and whose work is weak, should be eliminated and their places filled with persons better qualified to do the things which need to be done.

#### PREPARATORY TRAINING OF COLORED TEACHERS.

Similarly, the situation in the colored schools in respect to preliminary training is as follows:

Of a total of 157 teachers and principals of the colored elementary schools who reported, 54 had received nothing more than the three years' course at the local Kortrecht High School; 72 had taken the work at Le Moyne Institute, the equivalent of a high-school course, with a little time devoted to professional training; 6 came in from the Howe Institute; while 25 had the training given by other institutions for colored students. Of this latter group, 6 had done work at Fisk University and 3 at Tuskegee.

Of the 13 teachers in the colored high school (Kortrecht) who reported, 5 had taken a high-school course only; 3 had done some college work in addition; while 5 were graduates of colleges in good standing.

Of the 54 elementary teachers who had graduated from the Kortrecht High School (the local school), 45 had received no professional training for the work of teaching; 2 had done work in the Shelby County normal sessions; 3 had taken work in addition at the Le Moyne Institute; while 4 had attended one or more summer sessions at a State normal, one of these having attended a full year.

That is to say, nearly half of the colored teachers in the elementary schools came in from the Le Moyne Institute; about 35 per cent from the Kortrecht High School; and the remainder from other institutions, doing about the same grade of work, except that 8 or 10 teachers have received excellent college or university training. Eighty per cent of these teachers had no professional training at all, while the remaining 20 per cent, for the most part, had taken only one or two terms at a summer normal. Fifty-one had no teaching experience when they entered, and of 34 others their experience amounted to two years or less.

#### THE CAUSES FOR LOW STANDARDS.

The standards of academic and professional training and of teaching experience required of candidates for teaching positions in the Memphis school system as shown by the foregoing facts are altogether too low. No one should ever be permitted to teach in an elementary school who has not had a full four-year high-school course and a two-year normal training course in addition, or their equivalents, as a necessary minimum of preparation. Furthermore, every teacher in high-school grades should have a full four-year course at a standard college or university, together with special professional training. These are the standards of academic and professional equipment which the citizens of Memphis should require of the teachers of their children. Indeed, in general, the quality of the instruction will fall below the standard which the taxpayers of the city have a right to demand to the degree that the teachers fail to measure up to this minimum of preliminary training.

Several reasons can be pointed out which account, in part at least, for the low standards of preparation required by Memphis boards.

The salaries paid in the past have been too low to attract to the Memphis schools teachers of the qualifications desired or to hold them in the schools once they are obtained. During the last two years in particular salaries elsewhere, and in other lines of activity, have advanced so much more rapidly than they have in Memphis that teachers have resigned in great numbers. Boards have been obliged to accept almost anyone who came along; irrespective of qualifications, to avoid closing down classes and requiring the children to be kept at home. The abnormal conditions in this respect under which the city has been working during the two years, this country has been at war is indicated by the fact that 132 new teachers and aids have been required since 1917 to take care of the needs of the white elementary schools; 20 in the white high schools; and 25 in the colored schools. Altogether, a total of 177 teachers and aids have been received into the corps during this period. Some of this number is due to the growth

of the school population of the city, but most of them came in to fill vacancies created by resignations.

Moreover, western Tennessee has not had until within the past seven years a normal school supported at State expense for the preparation and training of elementary-school teachers. In consequence, there has been a dearth of normal trained teachers in Memphis. The situation in this particular, however, ought not much longer to exist. For, with a State normal school located as it is in Memphis, an adequate supply of teachers who can meet the standard heretofore suggested should soon be available.

The State normal schools of Tennessee have not yet reached the standard in their preparation of teachers which the Memphis board should require of those to whom it offers places, for these schools at present permit students to matriculate for a four-year course who have had but two years of high-school work. However, a plan has been adopted whereby in 1920 entrance requirements will be raised to a requirement of three high-school years, and in 1921 a full-four-year high-school preparation will be demanded as a foundation for a two-year professional training course for those wishing to enter the elementary schools as teachers, though a four-year course will be provided for those wishing to continue.

#### THE "AID-TEACHER" SYSTEM.

Another reason which accounts for the preponderance of teachers of too meager academic and professional training in the Memphis schools is to be found in the system of "aid teachers" which the Memphis system has employed for many years. By this plan graduates of the local high schools upon passing an examination, which most of them are able to do, are assigned to teachers in the grades who have large and crowded classes. These "aids" are expected to help the teacher in whatever she wishes done. They are on full time, are paid \$50 per month the first year and \$55 per month the second year, after which period they are eligible for appointment as regular teachers, when vacancies arise, without further examination. Many of the teachers now serving in the elementary grades came in under this plan. The aids receive no special instruction in their work, nor are they given any special supervision. They are expected to acquire proficiency and skill in teaching through observing the teacher to whom they are assigned and through following the suggestions which she may give from time to time.

In practice this arrangement works out badly in every way. The "aid" is not shifted from one teacher to another frequently enough to get a corrective on the poor teaching which many of them see. In fact, many are never shifted at all, but remain for the two-year

probationary period with the teacher to which they were first assigned. No opportunity is afforded for the discussion of the principles involved in good teaching; so whatever practices the "aid" acquires must be gained largely by imitation. The plan deters the young people from going off to a normal school and making real preparation for their work, for obviously many young people would rather begin serving as "aids" receiving \$50 per month for two years than to go to the expense of attending a normal school for the same period. Again, it means that the regular classroom teacher must teach the aid as well as the children of her class. Furthermore, the presence of the aid is doubtless taken as an excuse for the assignment to the class teacher, in instances, of altogether more children than she should have. Neither is the plan fair to the children, for they are entitled at all times to the best and most experienced instructors which it is possible to secure for them. It ought not to be necessary for them to be taught at any time by young and inexperienced aids.

▲ Without doubt the meagerness of the salaries paid in the Memphis schools in the past, the slowness with which the department has met the enormous rise in living cost, the failure of the State normal schools of Tennessee more quickly to raise their admission standards, and hence to increase the qualifications of their graduates, and the "aid-teacher" system which has prevailed in Memphis for many years go far toward explaining the fact that at the present time the system has in it so many people so poorly qualified by education, training, and experience for their work.

#### NO PLAN FOR ELIMINATING THE POOR TEACHER.

One other reason in accounting for this situation should not be overlooked, and that is that no plan apparently has ever been systematically employed by superintendents or by boards in Memphis for eliminating the teacher who in her work has not measured up to proper standards of efficiency and who has not given evidence of professional growth. It is impossible ever to devise preliminary tests of efficiency which will unfailingly prevent some from getting into a department who ought not to be there. However careful a superintendent and a board may be in appointing teachers, there will always be found some who fail to do creditable work. One of the important functions of a normal school is to find out which of its students are lacking in the temperamental and intellectual qualities which are necessary to success in teaching. It is doubly necessary that a system, such as the Memphis system, which draws its teachers very largely from sources other than normal schools, should have an efficient plan for trying out all who enter and of eliminating those

from the department who for one reason or another are not successful. Such a plan, of course, must avoid working any seeming injustice to a teacher, and it must not be operated in an arbitrary and unsympathetic manner.

One such plan which has worked very successfully is this: At the close of each term the principals and supervisors hand to the superintendent a frank statement regarding the teachers in their respective corps, grading each as "excellent," "satisfactory," or "unsatisfactory." Those teachers who are ranked as "unsatisfactory" by the principal and supervisors, if the judgment is concurred in by the superintendent, are thereupon transferred to other schools, in other situations, and even perhaps to other grades than the ones to which the teachers were assigned. But such transfers are made, it should be pointed out, only after each teacher has been told very frankly by principal and superintendent just what the criticism is. Each is thereby given another chance, with as nearly a complete change of conditions provided as it is possible to secure. Very often the reports coming in at the end of the next term are favorable rather than otherwise, but if they again confirm the first reports it is understood that the superintendent will fail to recommend for reelection the teachers in question. By some such plan as this the danger of snap judgment is avoided, the teachers are given every chance to make good, and the children are protected against the retention of teachers who have mistaken their calling and who should be dealing with typewriters and merchandise rather than with children.

Only by the twofold process of exercising discriminating judgment in the appointing of teachers and in systematically employing some such plan as the foregoing in eliminating those who are inefficient can a teaching corps be kept up to that high standard of excellence which the citizens should properly demand. Neither is this a difficult matter when a school system is taken out of politics and away from personal influence and operated on the high plane of principle. Teachers rightly hesitate to accept dismissal at the hands of superintendents and boards who are known or suspected to be working under the table but, except in rare cases, they do not hesitate to quit after they have been given a fair and impartial and systematic try out and after they have been told wherein they fall short and have been given ample opportunity to correct their mistakes and to overcome their weaknesses.

#### THE LE MOYNE NORMAL INSTITUTE FOR COLORED TEACHERS.

The foregoing study shows that about one-half of the teachers of the colored schools of Memphis have come in from the Le Moyne Normal Institute situated in Memphis, and that about one-third came from the Kortrecht colored high school, also of Memphis.

The Le Moyne Normal Institute was organized in 1861, under the auspices of the American Missionary Society, as a vocational and industrial school for negro youths. The school comprises a faculty of about 19 teachers made up chiefly of white men and women of college training obtained in the North and East, though some of the teachers are colored people of good education. The school attempts to carry its students over the ground usually covered by good four-year high schools, and it should be said that it gave evidence of doing the work it has undertaken in a very creditable way. To meet the demand of students entering the school for a training which will prepare for teaching, a normal course was instituted. This course, however, parallels the other courses, all of which terminate with the twelfth year, that is with the completion of what corresponds to the regular four-year high-school period. This normal course is differentiated from the college preparatory course of the school only very slightly during the first two years, but with the third and fourth years a greater divergence between the two is to be noted. Some attention is given to the study of psychology, pedagogy, school management, school hygiene, and methods of teaching. Along with this work, a practice school has been organized which gives opportunity whereby the students can get some practical experience in actual teaching under trained supervision.

Inasmuch as this course is given while the pupil is pursuing his regular high-school studies, training for teaching is gained only at the expense of time which should be devoted to high-school work. The professional work, therefore, under present conditions, can not be considered as of adequate character.

In looking for a source of colored teachers for the schools of Memphis, in addition to the State Agricultural and Industrial Normal School for Negroes at Nashville, it would seem to be a feasible project for the board of education to enter into an arrangement with the management of the Le Moyne Institute whereby the former would raise their qualifications for colored teachers to a point such that a two-year professional course of training, in addition to a four-year high-school course, would be demanded. If this were done, doubtless the directors of the Le Moyne Institute would be willing to add a two-year normal course beyond the four-year high-school course which they are now giving and to eliminate from the high-school period the work of professional character which they are now trying to do. With such an arrangement the Le Moyne Institute would be in a position to do work in the training of teachers which would be worth while. On the other hand, Memphis would thereby have the opportunity of securing teachers who would be vastly better trained for teaching than those now in service.

In line with this plan the Kortrecht High School should be shifted from its present unsuitable location, should be provided with a proper site and with adequate buildings and equipment, and a full four-year course arranged for. It should further be required that all the graduates of this school who desire to teach in the Memphis schools should take this two-year training course at the Le Moyne Institute or at some institution which would do the same grade of work. An arrangement of this character, it is believed, would work to the mutual advantage of the Le Moyne Normal Institute and of the city of Memphis.

It would be well to investigate the possibilities of the Howe Institute, also in Memphis, in this connection. The reports coming to the staff regarding the work of this institution raise a doubt, however, as to its availability for this purpose.

#### THE NEED FOR SUPERVISION.

It has been suggested in preceding paragraphs that to keep the teaching corps at a high plane of efficiency a twofold process is necessary—the insistence upon high admission standards and a method of eliminating the poor teacher. There is a third important consideration in accomplishing this result which no progressive superintendent and board will ever overlook, and that is devising means and methods for improving the efficiency of the corps while the members are still in the service.

The first and most obvious method is that of providing an adequate supervisory staff. Teachers must have supervision, if good teamwork is to be secured. In the end, the efficiency of a system of schools depends upon collective effort. Confusion, loss of time and effort, and general wastage on all sides can be avoided only by the careful coordination of the work of every individual. This coordination of plan and of effort can be secured in no other way than through the personal supervision of a leader or leaders who endeavor to unify the work of all in order that definite aims may be reached and authorized plans carried into execution.

This responsibility rests directly upon the shoulders of the superintendent and his corps of assistants and supervisors expressly selected for their ability as leaders and for their knowledge of details. In most cities of the size of Memphis there is a supervisor of primary grades; a supervisor of intermediate grades; a supervisor of the industrial work of the system throughout; a supervisor of home economics throughout; a supervisor of music throughout; a supervisor of physical activities throughout; sometimes, although not always, a supervisor of penmanship throughout; one for drawing and art throughout; and then heads of high-school departments, who

are responsible, in the high-school corps, for the planning and teaching of their respective subjects and whose ability and responsibility are recognized in the salary schedule and whose jurisdiction, in places, extends downward to embrace the work in their respective fields in the junior high schools.

These supervisors, acting with the superintendent as their leader and with and through the principals in the several schools, constitute the supervisory body whose duty it is to lay out plans in discussion with the teachers, and through cooperating with the latter gradually bring about a well-knit and thoroughly coordinated school system which shall increasingly reach higher standards of efficiency in every department of its activity.

In respect to such a supervisory staff Memphis is unfortunately placed, for the only supervision which the teachers are now getting, aside from that afforded by the principals, is given by a supervisor and one assistant of music in the elementary schools; by a supervisor of handwork for children in the primary grades whose attention has been diverted to Red Cross sewing activities; and by a supervisor of physical activities. Until a year ago there was a supervisor of primary teachers, but the present board abolished the office and transferred the supervisor to the principalship of one of the grade schools. The high schools have not yet been organized on the departmental basis, though the staff was informed that this step was contemplated.

#### SUPERVISION OF THE COLORED SCHOOLS.

As matters now stand the colored schools are without any special supervision of any kind except for that rendered in music by one person. The superintendent of schools meets the principals and the teachers of the colored schools for one session per month, at which matters of general interest rather than of specific detail are presented by the superintendent or by some one who has been invited to address the meeting. No opportunity offers at these meetings for a discussion of matters pertaining to the internal work of the schools, although it is planned that the monthly meeting shall break up into groups for such discussion and for some special study under the direction of the principals of the respective schools.

There is a definite need for a well-equipped supervisor of the colored schools who shall work under the immediate direction of the superintendent and who shall give his full time to the problems of these schools. As time goes by and the work develops, there should be added supervisors of special subjects as well, for if supervision is essential for successful work in white schools, there is all the more

reason why it should be provided for colored schools, if the money expended upon Negro education is to bring the fullest returns.

It is a debatable question in the minds of the survey staff whether such a supervisor should be a colored man or whether he should be a white man who takes a sympathetic interest in the problems of the Negro race. The staff has no hesitation in saying that theoretically it believes one of the colored race should be chosen, but, practically, it must admit that in instances where this plan has been adopted it has not worked satisfactorily, because of the failure of the colored people themselves to stand back of the supervisor in a unified way. Be this as it may, there is urgent need for a supervisor of colored schools and for a supervisory staff as well. The staff therefore recommends the appointment of such a supervisor when the board is convinced that a well-equipped person is available, and that, as opportunity arises, his work be supplemented by a supervisor of primary grades and also by a supervisor of intermediate grades, who shall be skilled in the work of their respective fields.

#### OTHER WAYS OF IMPROVING THE SCHOOL CORPS.

Such a staff of supervisors, working under the general direction of a leader of initiative and inspiration, will be able so to guide and help the inexperienced and weak teachers that the necessity for dismissal in many instances will be avoided. It is, however, possible to go further in providing opportunity whereby teachers may improve themselves while they are still in the service. By lecturers brought in from time to time, by the organization of groups for the intensive study of school problems, by establishing clubs for the reading and discussion of educational topics, by arranging that teachers may visit others in the corps and in other cities for the purpose of observing their work, by exchanging teachers with school departments in other cities in other parts of the country, by granting a sabbatical leave on half or full pay for travel and study, by encouraging attendance at summer normals and colleges, and by giving recognition to individuals who are striving to increase their efficiency, by promotions in the corps and through increased remuneration, progressive educators in many cities are accomplishing much in improving their teaching force.

The reports of the teachers of Memphis show that many have made commendable efforts, even handicapped as they have been by small salaries and by no plan for the recognition of better service, to improve themselves. For example, of the 399 white elementary teachers reporting, 224 stated that since entering the department

they had taken courses in summer sessions at various normal schools and colleges of the country. Of the remaining 175 who had not taken such courses, about two-thirds have recently entered the department and have not yet had time to take such work. There are some 60 elementary teachers, however, who have been in the department more than two years, some, indeed, for a number of years, and yet who have not availed themselves of this opportunity for increasing their efficiency.

The situation in this respect in the white high schools is as follows:

Of the 69 teachers and principals reporting, 41 have taken summer-school work, while 29 have not. Of the 29, about 15 have been elected to their positions within two years.

In the colored schools, of 170 teachers reporting, 119 state that they have taken work of this character.

This is a creditable showing and indicates that the teaching corps of the Memphis schools is awake to the importance of taking advantage of every opportunity for professional growth within reach, although, doubtless, the credit is due in instances, at least, to the fact that former boards required all teachers not needed in the vacation schools of Memphis to attend summer normals.

### 3. THE SALARIES OF SCHOOL EMPLOYEES.

#### SUGGESTIONS MADE BY TEACHERS.

"A substantial increase in teachers' salaries, so that they may not be hampered, but may work happily and contentedly and thus get better results and also have time and means for self-improvement. To keep out of a rut it is necessary to go away and study during the summer; then you come back to your class feeling refreshed and ready to work with renewed energy. But you can't always go on borrowed money."

"Last, but not least, a teacher should be paid enough to keep her from worrying constantly over how she can manage her financial affairs. She gives her life to the work and has a right to expect enough to be well dressed, well fed, have a few pleasures, and save something."

"The most serious problem at present is the very low salaries paid to teachers and principals, for unless there is an increase worth while there will be many of our teachers go into the commercial world this fall, and the greatest question is, Where can we find others to take their places?"

"Salaries are so low here, as elsewhere, that no self-respecting, educated woman can live on them comfortably. Good teachers are leaving the system, because of poor pay, and very few are taking up the profession of teaching. Result, poor teachers."

"Some recognition of merit in compensation. At present all salaries are increased on term of service only, with the result that the competent and incompetent are remunerated alike."

"Board of education to pay adequate salaries and then make the requirements of education, temperament, and personality such as will obtain real teachers."

"When we are happy in our work we can accomplish more."

"Incentive to grow while in service."

- "Pay teachers more salary and require of them more professional work."
- "Teacher's ability should be recognized more than her experience."
- "Increase of salary to enable teachers to take normal-school courses that are worth while."
- "The teachers are overworked and underpaid. I do not believe it is possible to do justice to the school, the children, the subjects to be taught, or to myself when I have to teach eight classes per day. I am supposed to have seven preparations, but every minute of the day is occupied in teaching classes of anywhere from 16 to 60 pupils. Also the equipment is very inadequate for the work to be done."
- "Pay better salaries and so free the teachers from financial worries. They will do better work."
- "Let training and degree of success in teaching be the basis for salary increase. Pretty difficult to arrive at latter here. Have taught five years here and can count the official visits on five fingers."
- "Give a sabbatical year to teachers."
- "An increase in salaries and more male teachers. Ten thousand dollars of this increase can now be saved by clearing Central High of a lot of 'dead wood.'"
- "Better salaries, so we can have better teachers. Some of our most efficient teachers have left the service because it was almost impossible to live on the salary received."
- "A better salary for the teacher, so that all his time and energy may be devoted to school work and preparation of school work and duties, and that he may be able to spend his vacations in doing special work in summer normals."
- "Better salaries for Negro teachers so they can give all their time to school work, can go to different parts of the country to attend summer schools and institutes and also that their living conditions may be improved."
- "Owing to the 'high cost of living' I recommend that the standard of salary be so raised as to enable the teacher to do her school work without worrying about how she is going to secure the necessities of life."
- "Better salaries. A salary that would permit the teachers to attend summer schools; subscribe for and take educational journals, etc., and support themselves; not live in debt and work all summer."

#### THE PRESENT SCHEDULE.

Not until last September (1918) was the board of education of Memphis able to make any response to the tremendous rise in living cost by increasing the salaries of school employees. For many years prior to 1917 the maximum tax limit for school purposes as fixed by the charter under which the schools operate was 25 cents on every \$100 of assessed property valuation. In 1917 this limit was raised to 40 cents, 3 cents of this amount, however, was set aside, it was stipulated, for buildings and equipment. By act of the last legislature a mandatory vote for school purposes of 50 cents was authorized. Although the act was not to become operative until July 1, 1919, nevertheless, in response to urgent demands by the teachers the board, on the strength of this increase in rate, advanced the salary of all of the regular teachers in the white schools \$10 per month, dating this advance back to the beginning of the fall term, Septem-

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ber, 1918. As it now stands, then, the salary schedule of the department is as follows:

TABLE 7.—Salary schedule of school employees, Memphis, 1919.<sup>1</sup>

Officers and teachers.	Per year.		Officers and teachers	Per year.	
	Minimum.	Maximum.		Minimum.	Maximum.
Superintendent.....	\$5,000		CUSTODIANS AND JANITORS. <sup>2</sup>		
Secretary of the board.....	2,800		White:		
Assistant secretary.....	1,020		Bruce School.....		\$1,500
SUPERVISORS.			Cummings.....		1,260
Music.....	1,080		Gordon.....		1,020
Art.....	1,080		Guthrie (\$15 rent).....		1,080
Assistant supervisor of music.....	1,300		A. B. Hill.....		1,200
Physical director.....	1,300		Idlewild.....		1,440
Supervisor music (colored schools).....	900		Lauderdale.....		1,280
PRINCIPALS.			Leath (\$15 rent).....		980
Elementary:			Leath No. 2.....		1,320
All white schools, irrespective of size.....	2,000		Lenox.....		960
All colored schools, irrespective of size.....	1,600		Madison Heights.....		960
High:			Maury.....		1,080
Central High.....	2,700		Merrill.....		1,080
Vocational High.....	2,400		Open Air.....		720
Kortrecht High (colored).....	1,620		Peabody.....		1,140
TEACHERS.			Riverside.....		1,140
Elementary, white:			Rozelle.....		1,275
First grade.....	\$720	1,140	Smith.....		1,500
Second to seventh grades.....	720	1,020	Snowden.....		1,020
Eighth grade.....	720	1,080	St. Paul.....		1,020
Elementary, colored:			Vocational High.....		1,320
First grade.....	504	840	Colored:		
Second to seventh grade.....	504	720	Caldwell.....		360
Eighth grade.....	504	840	Carnes.....		450
High school, white: All teachers.....	1,140	1,440	Grant.....		630
High school, colored: All teachers.....	720	1,044	Greenwood.....		480
AIDS TO TEACHERS.			Klondike.....		540
Elementary, white:			Kortrecht Grammar.....		450
First year of service.....	600		Kortrecht High.....		450
Second year of service.....	660		La Rose.....		585
Elementary, colored:			Porter.....		450
First year of service.....	420		Virginia Avenue.....		450
Second year of service.....	480		Attendance officer (white).....		1,020
Substitute teachers.....	18		Attendance officer (colored).....		480
			Superintendent repairs.....		1,680
			Superintendent's secretary.....		1,320
			Stenographer (superintendent's secretary).....		1,020
			Storekeeper (white man).....		900

<sup>1</sup> Salaries are paid in 12 monthly payments. For teachers they automatically increase \$60 per year until the maximum is reached.

<sup>2</sup> Custodians and janitors receive their rent free as they live in houses on the school ground. They also receive free fuel and light. On the other hand they have to provide out of their salaries for whatever help they need in caring for their buildings.

MEMPHIS HAS MADE SMALLEST RESPONSE TO INCREASED LIVING COSTS.

Until the salaries of white teachers of elementary and high-school grade were recently raised, their salary schedule had remained for many years at \$600 to \$900 for elementary teachers and \$1,020 to \$1,320 for high-school teachers. The flat advance of \$120 per year which the raise in salary brought meant an increase of about 16 per cent for the teachers of elementary grade and about 10 per cent for teachers of high-school grade, or an average advance of 13 or 14 per cent, colored teachers not included. It will be of interest to compare this increase with that made in other cities of the country.

A study which the Bureau of Education has just made of 149 cities of the country shows the following facts regarding the advances which have been made in teachers' salaries since 1914. Three report no advance; 22 report an average advance of 15 per cent or less; 58 report an average advance ranging from 16 to 25 per cent; 14, with most of them near the upper limit, report an average advance of from 26 to 30 per cent; 41, of 31 to 50 per cent; and 11, of more than 50 per cent. Memphis is seen, therefore, to fall into that group of cities which has made the smallest response to increased living cost, when the percentage of increase is considered.

#### HOW TEACHERS' SALARIES IN MEMPHIS COMPARE WITH THOSE IN OTHER CITIES.

In the questionnaire sent out to the teachers by the survey commission, each teacher was asked to state her total salary for the year 1918-19. In order to determine where Memphis stood with respect to the salaries which she paid her teachers, a comparison was made with the salaries paid elementary and high-school teachers in 392 cities of 100,000 population or more in all parts of the country.<sup>1</sup>

#### MEMPHIS COMPARED WITH CITIES OF THE SAME SIZE.

Table 8 shows that the largest group of teachers in Memphis (34.2 per cent) receive a higher salary (\$1,000 to \$1,199) than the largest group of teachers (32.2 per cent) in the 392 cities (\$800 to \$999). It should be borne in mind, however, that 105 of the 149 Memphis teachers who fall into the salary group of \$1,000 to \$1,199 received only \$1,020. No teacher in the elementary schools of Memphis received a higher salary than \$1,140, whereas 20.6 per cent of the teachers in cities of the same size as Memphis received between \$1,200 and \$2,000.

In other words, Memphis pays her largest group of elementary teachers a higher salary than other cities pay the largest group of their teachers, but she stops at that point. Her maximum for elementary white teachers falls \$1,000 short of the maximum in the 392 cities.

Among the negro teachers in Memphis, 121 teachers out of 137, or 88 per cent, receive only the minimum salary paid white teachers, or less. The maximum salary for the Negro teachers was \$960. Three teachers in replies to the questionnaire stated that they received that salary.

<sup>1</sup> The data in regard to the salary schedules of teachers in 392 cities were compiled by the National Education Association and are about to be published under the title "Teachers' Salaries and the Cost of Living." In the table showing this comparison the salaries of white teachers and negro teachers are given separately for Memphis, but the comparison with other cities is made on the basis of the salaries of both groups combined, since the salary schedule for the 392 cities includes both white and negro teachers.

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TABLE 8.—Elementary teachers' salaries for 1918-19—Memphis compared with other cities of 100,000 population or more.

Salary groups.	392 cities.		Memphis.				
	Number of teachers.	Per cent of total.	White teachers.	Per cent of total.	Negro teachers.	White and Negro.	Per cent of total.
\$200-\$399	35	3.0			11	11	2.7
\$400-\$599	370	2.6			38	38	8.7
\$600-\$799	3,204	22.3	50	18.8	72	128	29.4
\$800-\$999	4,627	32.2	94	31.4	16	110	25.2
\$1,000-\$1,199	3,457	22.0	149	49.8		149	34.2
\$1,200-\$1,399	2,350	16.2					
\$1,400-\$1,599	504	3.9					
\$1,600-\$1,799	61	.4					
\$1,800-\$1,999	18	.1					
\$2,000-\$2,199	1						
Total	14,397	100.0	299	100.0	137	436	100.0

HIGH-SCHOOL TEACHERS' SALARIES IN MEMPHIS AND OTHER CITIES OF THE SAME SIZE.

The highest salary which Memphis pays her high-school teachers is \$1,440, whereas in 392 cities in all parts of the country 47.5 per cent of the teachers receive from \$1,600 up to \$2,500. In other words, her maximum falls \$1,060 short of the maximum paid in the group of 392 cities. Only 7 teachers (out of 3,094) in other parts of the country received a lower minimum salary than that of Memphis. In Memphis 16.5 per cent of the teachers received less than \$1,000, while in other parts of the country only 5.8 per cent received less than \$1,000. (See Table 9.)

TABLE 9.—High-school teachers' salaries for 1918-19—Memphis compared with 392 cities of 100,000 population or more.

Salary groups.	392 cities.		Memphis.				
	Number of teachers.	Per cent of total.	White teachers.	Per cent.	Negro teachers.	White and Negro.	Per cent of total.
\$200-\$399	2	0.1					
\$400-\$599	5	0.1					
\$600-\$799	47	1.4			2	2	3.3
\$800-\$999	133	4.3	13	5.0	5	8	13.2
\$1,000-\$1,199	650	21.0	6	11.8	3	9	14.5
\$1,200-\$1,399	481	15.6	16	31.9		16	26.3
\$1,400-\$1,599	500	16.2	28	51.0		26	42.7
\$1,600-\$1,799	462	14.6					
\$1,800-\$1,999	605	19.6					
\$2,000-\$2,199	161	4.9					
\$2,200-\$2,399	37	1.2					
\$2,400-\$2,499	35	1.2					
Total	3,094	100	51	100	10	61	101

Three of the teachers listed in the high-school group (Negro) taught seventh and eighth grades. In two cases they received lower salaries than some high-school teachers; in one case a higher salary than a high-school teacher.  
Three teachers gave a salary less than that which is now stated as the minimum for high-school teachers.

SALARIES OF MEMPHIS TEACHERS COMPARED WITH THOSE OF OTHER CITIES  
DISTRIBUTED ACCORDING TO GEOGRAPHICAL LOCATION.

In order to determine how much Memphis paid her teachers as compared with other cities in the South and in other parts of the country, a comparison was made with different geographical groups in which the 392 cities were distributed, as follows:

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

A comparison of Memphis with these different geographical groups shows that Memphis upon the whole pays higher salaries to her elementary-school teachers than other cities in the South; 34.2 per cent of her elementary white teachers fall into the group receiving \$1,000 to \$1,199, whereas only 4.1 per cent of the teachers in the southern group (B) fall into that group.

Again, 95.1 per cent of the teachers in the southern group receive less than \$1,000, whereas in Memphis 65.8 per cent receive less than \$1,000. (See Table 9.) But if Memphis is compared with cities in the West and Middle West, Groups D and E, it is found that in Group D only 54.9 per cent and in Group E only 34.3 per cent of the elementary teachers receive less than \$1,000. In Memphis the maximum salary is \$1,140, whereas in Group D 21.7 per cent and in Group E 34.9 per cent of the elementary-school teachers are receiving salaries ranging from \$1,200 to \$2,000.

## HIGH-SCHOOL TEACHERS' SALARIES.

When the salaries of Memphis high-school teachers are compared with those of other cities in the South, it is found that 1 per cent of the teachers in the southern group get less than those in the minimum salary group of Memphis, but 10.2 per cent of the teachers in the southern group receive from \$1,600 to \$2,400, whereas no high-school teacher in Memphis receives more than \$1,440. In Group D 31.1 per cent and in Group E 43.4 per cent of the high-school teachers receive from \$1,600 to \$2,500 as against the Memphis maximum of \$1,440. (See Table 9.)

<sup>1</sup> See report of National Education Association, *Teachers' Salaries and the Cost of Living*.

TABLE 10.—Elementary teachers' salaries for 1918-19 in 32 cities, compared with those of Memphis.  
(Distributed according to geographical grouping and salaries received.)

Salary groups.	Group A.			Group B.			Group C.			Group D.			Group E.			Total.			Memphis.					
	Num-ber of teach-ers.	Per cent of total.		Num-ber of teach-ers.	Per cent of total.		Num-ber of teach-ers.	Per cent of total.		Num-ber of teach-ers.	Per cent of total.		Num-ber of teach-ers.	Per cent of total.		Num-ber of teach-ers.	Per cent of total.		White and Negro.	Per cent.	White and Negro.	Per cent.		
\$200-\$250	78	0.7	184	2.5	13	0.3	14	0.2	2	0.0	281	0.9	11	1.1	11	1.1	11	1.1	11	1.1	11	1.1	2.5	
\$250-\$300	925	9.1	1,065	15.2	43	1.0	308	4.2	25	0.5	2,523	8.1	28	2.8	28	2.8	28	2.8	28	2.8	28	2.8	8.7	
\$300-\$350	3,462	33.7	3,671	43.5	2,043	39.9	1,308	18.2	52	0.5	10,327	32.9	72	7.2	72	7.2	72	7.2	72	7.2	72	7.2	29.4	
\$350-\$400	3,748	36.0	2,619	30.7	1,502	30.7	1,024	11.4	1,274	13.2	11,157	37.1	148	14.8	148	14.8	148	14.8	148	14.8	148	14.8	35.2	
\$400-\$450	1,768	17.0	2,285	4.1	1,718	14.6	1,423	23.4	1,600	30.8	6,110	17.1	16	1.6	16	1.6	16	1.6	16	1.6	16	1.6	31.2	
\$450-\$500	1,202	2.9	45	0.6	231	4.3	1,224	20.0	1,344	24.9	3,144	9.1												
\$500-\$550	45	0.4	12	0.2	33	0.6	1,060	11.0	515	9.6	665	1.9												
\$550-\$600	28	0.3	1	0.0	15	0.3	26	0.4	10	0.4	89	0.3												
\$600-\$650	4	0.0	1	0.0	5	0.1	17	0.3	1	0.0	30	0.1												
\$650-\$700			1	0.0	1	0.0	1	0.0			2	0.0												
\$700-\$750																								
\$750-\$800																								
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\$2,200-\$2,399																								
Total	10,418	100.0	7,235	100.0	5,183	100.0	6,107	100.0	5,392	100.0	34,703	100.0	299	100.0	137	436	100.0							100.0

TABLE 11.—High-school teachers' salaries for 1918-19 in 893 cities, compared with those of Memphis.

Salary groups.	Group A.		Group B.		Group C.		Group D.		Group E.		Total.		Memphis.	
	Num-ber of teach-ers.	Per cent of total.	Num-ber of teach-ers.	Per cent of total.	Num-ber of teach-ers.	Per cent of total.	Num-ber of teach-ers.	Per cent of total.	Num-ber of teach-ers.	Per cent of total.	Num-ber of teach-ers.	Per cent of total.	White and Negro.	Per cent of total.
\$20-2300	1	0.5	1	1.0	2	0.1	2	0.1	4	0.4	4	0.4		
\$200-2400	11	4.8	13	7.5	3	1.4	3	1.4	20	3.3	20	3.3	2	3.3
\$200-2700	117	21.8	102	19.0	46	28.8	23	18.0	288	3.3	1,611	18.5	2	13.2
\$200-2800	528	28.2	259	39.5	347	22.4	339	20.5	1,611	4.5	1,698	22.9	5	8
\$1,000-3100	517	23.2	539	17.5	347	22.4	339	20.5	1,611	8.0	1,698	17.9	3	14.5
\$1,200-31,000	294	11.7	102	3.6	168	12.1	158	10.9	478	27.7	1,257	14.3	16	26.3
\$1,700-31,000	139	5.7	49	3.6	100	6.4	163	9.8	447	25.0	1,698	10.2	26	42.7
\$1,900-31,000	83	3.8	77	5.6	98	6.3	247	14.0	246	14.3	781	8.7		
\$2,000-32,000	33	3.8	14	1.0	43	2.8	74	4.5	56	3.2	278	3.2		
\$2,500-32,000	4	1.3			1	0.1	32	1.9	11	0.7	37	0.4		
\$3,000 and over	1	0.5			1	0.1			2	0.3	11	0.1		
Total	2,428	100.0	1,364	100.0	1,552	100.0	1,658	100.0	1,725	100.0	8,724	100.0	51	100.0

## SUMMARY.

## COMPARISON WITH OTHER CITIES OF THE SAME SIZE.

Memphis pays her largest group of elementary teachers (34.2 per cent) a higher salary than other cities pay their largest group (32.2 per cent), but she stops at that point. Her maximum salary for elementary teachers is \$1,140, whereas 20.6 per cent of the teachers in cities of the same size received between \$1,200 and \$2,000. Her maximum salary for Negro teachers is \$960. Three teachers receive this salary, but 88 per cent of the Negro teachers receive the minimum paid white teachers or less.

The minimum salary for high-school teachers in Memphis is about the same as in other cities, but her maximum, \$1,440, falls short by \$1,060 of the maximum in other cities of the same size; 41.5 per cent of the teachers in these cities receive from \$1,600 to \$2,500.

## COMPARISON WITH CITIES IN DIFFERENT SECTIONS OF THE COUNTRY.

Memphis pays higher salaries to her elementary teachers than other cities in the South; that is, 34.2 per cent of her elementary teachers fall into the group receiving \$1,000 to \$1,199, whereas only 4.1 per cent of the teachers in the South fall into that salary group. But when Memphis is compared with the West and Middle West, it is found that Memphis' maximum is only \$1,140, while in the Middle West 21.7 per cent of the teachers, and in the West 34.9 per cent of the teachers are receiving salaries ranging from \$1,200 to \$2,000. The maximum salaries for high-school teachers in the West and Middle West exceed Memphis' maximum by \$200 to \$1,000, and 31.1 per cent of the teachers in the Middle West and 43.4 per cent of the teachers in the West are receiving salaries exceeding the Memphis maximum.

In other words, if Memphis compares herself with the South, she can make a fairly good showing on her salary schedule. But Memphis does not compare herself only with the South in matters of trade and commerce and business enterprise; she invites comparison in these respects with any other city in the country. But when she compares herself with cities in other parts of the country with respect to the salaries she pays her teachers, it is found that her salary falls far short of the standard set by cities of the same size in other sections of the country. Moreover, when it is remembered that during the past four years the cost of living has more than doubled, while teachers' salaries all over the country have increased less than 20 per cent, it is easy to realize what Memphis' failure to come up even to that inadequate standard must mean to the teachers

of Memphis. The people and board of education of Memphis should also remember that nowhere in America is the pay of teachers anything like so liberal as it should be, when the difficulty of their work, the good of the schools, and the public welfare are considered.

#### THE IMPERMANENCE OF THE TEACHING STAFF.

The fact of the matter is that the teacher-salary schedule of Memphis is far too low to attract to the profession the type of young men and women which the profession needs and to hold them permanently in the service. Studies made in different cities of the tenure of teachers show that the extent of the period of service of the average of teachers is three years. This impermanency of the teaching corps is a very disconcerting and alarming matter, for with so many teachers coming and going, the superintendent and his supervisors are greatly handicapped in working out a unified, consistent, and well-coordinated school policy. Furthermore, it is clear that teachers who enter the department to leave it at the first opportunity are not going to give to their work that unremitting application necessary to secure the best results. Even under the most favorable conditions, there will always be many transients among teachers, but good instructional opportunity for the children demands that serious effort be made to stabilize the teaching force. Offering adequate salaries is one important means of accomplishing this object.

This instability in the teaching corps is in striking contrast to the situation which prevailed among the elementary schools of Prussia prior to the outbreak of the war. In these schools, which were remarkable for producing the kind of efficiency which Germany demanded, recent studies show that 45 per cent of the male teachers of the cities had been in service for more than 20 years, and only 6.69 per cent had had less than 6 years' service, while 77.67 per cent had served more than 10 years.<sup>1</sup> Conditions of salary, of tenure, of retirement provisions were such that teaching in Germany had become a profession wherein those who enter do so intending to remain in the work for life. The German elementary-school teacher does not receive a large salary, but it is sufficient to provide him with a comfortable home, an education for his children, a margin of savings, and a pension upon retirement which will keep him from want for the rest of his days. If teaching is ever to become a profession in America, it will be only after some such provisions are made to secure greater permanency in our teaching force.

<sup>1</sup>Alexander: *The Prussian Elementary Schools*. Macmillan, 1898, p. 197.

CONDITIONS ESSENTIAL TO SUCCESSFUL TEACHING.

Good business practice outside of the teaching profession is recognizing this need, for it is learning that success within the field of business enterprise is largely dependent upon offering to employees inducements such that long tenure and the taking of a vital interest in the business will inevitably ensue. If it be true that a happy, contented, and care-free employee is requisite for success within the domain of business, how much more must a serene mind be essential to work of a superior quality in the business of teaching. Good teaching, perhaps more than good work in any other activity, is dependent upon a buoyant, hopeful, joyous mind; for good teaching is a matter primarily of the spirit. A state of mind is contagious. Happy teachers mean happy children, and unhappiness in a teacher inevitably begets unhappiness among children. Men and women, as well as children, can never do their best work when they are dispirited, discouraged, and depressed. True, some teachers are able, however adverse the conditions; to live in the realm of the free spirit, but with most the response to external conditions is powerful and immediate. In the interest of the children, therefore, school officials should give much practical consideration to the ways and means of improving the material conditions which press in upon the life of their teachers.

The qualifications required of teachers are constantly rising. There was a time when young people who could do nothing else or who wished to gain a few dollars to enable them to attend a business college or a medical or law school turned to teaching with no intention of remaining in the work longer than a year or two at most; but those days have gone by never to return. It is now generally recognized that qualities of character and intelligence, as well as careful training, are essential; and, more and more, officials who are responsible to the people for the administration of their schools are raising the required standard of qualifications. The teacher should always be, and in most cases is, the equal of the men and women who enter other branches of professional life; and yet she, all too frequently, receives a recompense which is less than the wages of those who are doing the most menial and unskilled labor of the community.

Again, as standards of teacher qualifications are raised, an increasingly larger technical preparation is demanded. The best teachers in the grades are well grounded in the chief departments of human knowledge; they know what the big things are which are being accomplished in the broad fields of the world's work; they have developed well-defined standards of taste and appreciation in music, art, and literature, and know the best contributions which these

arts have produced; they keep abreast of political thought and discussion in their own community and in the larger community which lies beyond; and, moreover, within the field of education they are students of the general and special method of education and keep in touch with the progress of pedagogical investigation and discussion, working over continually into schoolroom practice the established results of such experiment and observation. Years of preparation are required, in the high school, in the college, or university, and in the professional course, followed up by vacations spent in summer schools, by Saturdays and holidays spent at lectures and teachers' meetings, by evenings occupied in intensive and detailed preparation for the classroom work of the following day. Besides time, effort, and strength of body and of purpose, the expenditure of considerable money is necessary in securing such preparation. It is no act of justice to those who have gone through with such a laborious and expensive course of training as is now required that they should, in the end, find themselves limited to a salary so small as to seem pitiful.

Furthermore, a teacher should purchase many books, she should attend conventions and conferences, and she should travel. Her growth can not be maintained unless she reads daily; unless she comes in personal contact with people outside her own community, who afford a corrective against the provincialism of localities; and unless she broadens her horizon through travel. But these things can not be accomplished without money. A teacher should be so situated financially that she can spend a fifth of her salary, at least, in such effort at self-improvement and in the acquisition of self-culture.

In short, a salary should be paid sufficient to enable teachers to live in reasonable comfort and still have left a margin adequate to permit them to take advantage of the various opportunities for personal growth offered by their own and other communities; and with a margin, too, generous enough to make it possible for them to command that respect and recognition in the community to which the dignity and worth of their profession entitle them. In addition, a teacher who has proved her worth in actual practice should be placed completely at ease with respect to tenure. Provisions should also be made, again with the welfare of the children in mind, for a retirement fund which will enable an allowance to be made to the one who has faithfully served her community during the active and virile period of her life span, and which will make it easy for her to be withdrawn from the classroom when her usefulness has ended.

Memphis, then, it must be pointed out, has still much to accomplish in improving the material conditions of her teachers in respect to salaries before she can command the uninterrupted service of teachers of the highest training and ability; before she can expect

to hold them up to the highest standards of teaching skill; and before she can properly insist upon evidence of a greater progress in self-culture than is now to be observed in the rank and file of the school corps.

An analysis of the problem of the individual teacher from the standpoint of the foregoing considerations shows that a compensation which can be considered adequate must cover the following items, at least: (1) Clothing and subsistence: (2) medical and dental care: (3) life insurance: (4) family support or support of dependents: (5) social and professional growth, such as books, magazines, music, art, the theater, membership in teachers' associations, and attendance upon summer schools: (6) incidentals: (7) establishing a reserve. At least \$300 per year should be saved and safely invested. At prevailing prices it is difficult to see how these items can be covered, even with severe economy, under a minimum salary of \$1,000 per year.

To find out what the facts are in Memphis in respect to this matter, the teachers were asked to report the amounts they were able to save out of their present salaries. The following table shows the results:

TABLE 12.—Amounts saved by Memphis teachers, year 1918-19.

Teachers, <sup>1</sup>	Number of teachers who saved—					Total number reporting.
	Nothing	\$1 to \$100.	\$101 to \$200.	\$201 to \$300.	\$301 or more.	
White:						
Elementary teachers.....	277	51	44	18	9	399
High-school teachers.....	44	7	4	7	7	69
Colored, all grades.....	142	17	9	0	2	170
Total.....	463	75	57	25	18	619

<sup>1</sup> The principals are included.

Many people have the idea that because most of the teachers are unmarried women they do not have others depending upon them for support, and that in consequence they can spend their salaries upon themselves. This belief is not correct, as the following facts show:

TABLE 13.—Teachers supporting dependents.

	Having no dependents.	Having one or more dependents.	Total number reporting.
White:			
Elementary teachers.....	187	212	399
High-school teachers.....	23	46	69
Colored teachers of all grades.....	27	143	170
Total.....	237	399	636

## A PROPOSED SALARY SCHEDULE FOR THE TEACHERS OF MEMPHIS.

To meet this situation adequately the following salary schedule is proposed as a goal which Memphis should earnestly seek to reach at the earliest possible moment:

TABLE 14.—Proposed salaries.

Teachers	Length of time of appointment.	Salary schedule for each group.				Yearly salary increase	Year in which group maximum can be reached.
		Elementary.		High school.			
		Minimum.	Maximum.	Minimum.	Maximum.		
1. One-year teachers (probationary).....	1	\$1,000	\$1,150	\$1,200	\$1,350	\$75	Third.
2. Three-year teachers.....	3	1,225	1,375	1,425	1,575	75	Third.
3. Five-year teachers.....	5	1,450	1,650	1,650	1,850	50	Fifth.
4. Permanent teachers.....	( <sup>1</sup> )	1,700	2,000	1,900	2,200	50	Seventh.

<sup>1</sup> Until retired.

When the maximum of each group is reached, the following alternative courses should be open to the board of education:

1. Termination of the contract (permissible each year in group No. 1).

2. Reappointment annually at the group maximum.

3. Promotion to the next higher group.

The promotion from group to group beyond that of the three-year teachers should be granted only to those who have shown special merit and have given evidence of valuable professional study. To satisfy the latter condition, the board might require the candidate for promotion to spend a year in study at some recognized college or university, or a year in teaching in some good school system in another part of the country, or perhaps a year in study and travel combined. In this connection a system of exchanging teachers might easily be established between Memphis and other cities to their mutual advantage.

This suggested schedule is designed to correct the weakness of the Memphis schedule in another particular, namely, in not providing any means for recognizing merit. Everyone knows that some teachers in a department are worth very much more than others, and they know, too, that this worth is not dependent upon length of service. Furthermore, a schedule such as that of Memphis offers no inducement for special industry or for effort for self-improvement, for the teacher who does just enough to escape dismissal gets quite as much as does the teacher whose heart is in her work. Again, there is a strong tendency among teachers, as among all workers on salary, when middle age is reached and the maximum salary is

attained, to permit the desire for a comfortable, easy-going life berth to outweigh the ambition for a steadily increasing personal efficiency which can be gotten only at the expense of hard work and many denials of personal pleasure. A salary schedule having a maximum which is reached early in the service, and beyond which no individual can advance, as does the Memphis schedule, operates powerfully to inhibit growth.

A schedule such as the one prepared would have teachers who enter the first group looked upon as being on a probationary status, subject to reelection each year for three years. Those who are rated as "successful" at the end of this period may be promoted to the group of three-year teachers, where they will advance automatically by \$75 increments for a period of three years. Those who are rated as "unsatisfactory" can in turn be continued from year to year at the maximum of the probationary group or dropped from the corps. When a teacher has reached the maximum of the "three-year" group, the board can then promote her to the "five-year" group if she has met the requirements demanded for promotion, reelect her from year to year at the maximum she has reached or dismiss her. And so when the maximum of the "five-year" group is reached, the teacher who has won promotion by her success in the classroom and by her efforts at self-improvement can be made a member of the "permanent teacher" group where she will remain until she retires. If, in the judgment of the officials, a teacher has not merited this promotion, she can be retained for a time at the maximum salary granted to the group she is in or be dropped. In this manner an adjustment can be worked out between the teachers' proper desire for security of tenure and the board's proper desire to eliminate the teachers who do not continue to grow in efficiency. At the same time the teacher knows that efforts at self-improvement will find tangible reward in terms of salary increase.

#### THE SALARY OF THE COLORED TEACHERS.

The survey staff would hold it to be fundamental, in arranging a schedule of salaries for colored teachers, that account be taken of the standard of qualifications and of success which are required for admission to the corps and for retention therein. If in matters of education, professional training, and experience colored teachers are held to the same requirements as are the white teachers, then the staff can see no justifiable reason for paying them at a less rate than obtains for white teachers. At present it is true that in Memphis the standard of qualifications for colored teachers is lower than that for white teachers, which fact, of course, justifies a difference in the rate paid, just as the difference in the standard set for elementary white

teachers and for high-school white teachers justifies a difference in their schedules. As rapidly as well-trained teachers are available, however, the standards demanded of colored as well as of white teachers should be raised. When this is accomplished, and the teacher source is placed on as high a level of training as that of white teachers, the staff would recommend that the foregoing suggested salary schedule be made operative for both and that both be made eligible to the same promotions, each within his own field of activity.

#### SALARY OF THE SUPERINTENDENT OF SCHOOLS.

For many years the salary of the superintendent of schools was \$2,500. In 1907 it was raised to an amount not to exceed \$3,600, where it remained until 1915, when the legislature passed an act amending the Memphis charter and raising the salary to an amount not to exceed \$5,000. The term for which the superintendent has been elected has for many years been two years.

The survey staff would urge that this charter limitation of salary be removed, thereby permitting future boards to go into the field anywhere and pay whatever is necessary to get the man who, in their judgment, is the one best equipped and qualified to do the work that the boards may wish done. It is also recommended that the practice governing tenure be so changed as to permit a board to elect a superintendent for any term it deems wise, not to exceed five years.

The Memphis school system has now reached a size and complexity which demands the highest skill in leadership it is possible to procure with the means available. This is particularly true if a serious effort be made to carry into effect the program which this survey report outlines. Obviously, if the salary which boards can pay remains at the present figure, the range of possible selection will be a limited one. Were boards, on the other hand, able to offer a salary of \$8,000 or \$9,000, coupled with a reasonable tenure, long enough to enable a superintendent to show what he could do, the range of available material from which a selection could be made would be greatly extended. The choice in such event might still fall upon a local man, but only after he had come into competition, in training and qualifications, with men of proved capacity in the field at large.

The Memphis schools have undoubtedly suffered through too frequent change in the office of superintendent. In the 12 years which have elapsed since Gen. Gordon's administration there have been seven different superintendents, no one of whom has remained long enough to enable him to establish an educational policy. There ought always to be an opportunity for a board to check up the work of its chief executive officer and determine whether or not the inter-

ests of the schools require a change. On the other hand, two years is too short a time in which to enable a superintendent coming in new to the system and to its problems to master the details and to demonstrate his ability to meet them with efficiency. A five-year period, it is suggested, would be a much fairer time in which to make the accounting which boards ought always to make at stated intervals.

The table which follows gives the salaries paid superintendents in 25 important cities of the country:

*Superintendent's salary in Memphis compared with those in other cities.*

Detroit.....	\$12,000	Milwaukee.....	\$7,500
Cleveland.....	12,000	Denver.....	7,000
Chicago.....	10,000	Buffalo.....	7,000
New York.....	10,000	Rochester.....	6,500
Cincinnati.....	10,000	Washington, D. C.....	6,000
Jersey City.....	9,000	Minneapolis.....	6,000
Philadelphia.....	9,000	New Orleans.....	5,400
Pittsburgh.....	9,000	Louisville.....	5,000
Los Angeles.....	8,000	Baltimore.....	5,000
St. Louis.....	8,000	St. Paul.....	5,000
Seattle.....	7,500	Providence.....	5,000
Newark.....	7,500	Memphis.....	5,000
Oakland.....	7,500	Average salary.....	7,600

#### SALARIES OF PRINCIPALS.

The arrangement in the elementary schools whereby all principals are on a flat salary rate is an admirable one. This is a much better plan than the one usually employed of making the salary of a given principal depend on the number of children attending his school, for it at once eliminates many points of friction and enables the superintendent more readily and easily to shift the attendance lines between schools as crowded classes require. The salaries paid—\$2,000 for the white schools, \$1,500 for the colored schools—should be raised to correspond more closely to the rise in living cost.

This latter suggestion applies with even greater force to the principals of the high schools. The training and general qualifications required of successful principals of large high schools is such as rightly to demand a better remuneration than the high-school principals of Memphis are now receiving. The office of principal of our large city high schools has come to be one of the most responsible as well as difficult positions in the entire range of educational work. Salaries should be paid which will attract to the office men of the highest qualities and of the best training and to hold them in their places for a period of years, for it is quite as demoralizing to the work of a high school to have frequent changes in the head of the school as it is to a system to be changing superintendents constantly.

It is quite as important, if not more so, to stabilize the executive and administrative corps, assuming that the personnel is efficient, as it is to stabilize the teaching staff. The payment of satisfactory salaries is, of course, one way of doing this.

#### THE JANITOR SITUATION.

There is much criticism of the janitor service in the schools of Memphis by both the school corps and school patrons. The contention is made that the buildings are not kept clean and in proper sanitary condition, and there is a disposition to hold the janitors of the department wholly responsible for this situation. The survey staff is convinced that, with certain notable exceptions, the school buildings of the city are not kept in the condition with respect to neatness that they should be in. Nevertheless, upon investigation it finds that the janitors themselves, except possibly in individual cases, are not to blame for the situation which has arisen. It is due, rather, the survey staff believes, to the method which has been in operation in the school department for a number of years whereby the board of education pays the janitor of the building a lump sum from which he is expected to provide whatever assistance he needs in keeping the buildings in the condition demanded.

The janitors contend, and there is much evidence to show that their contention is correct that, owing to the rise in cost of labor as well as in living costs, it is impossible for them to support their families out of the lump sum which the board is paying them, and still have an adequate margin left over with which to employ sufficient help. It is a fact that the wage scale which was authorized by boards of education prior to September, 1914, was, on that date, subjected to a flat cut of 25 per cent. Not until September, 1917, were the janitors allowed any increase, at which time a restoration of about 10 per cent was made to the janitors of the white schools but no restoration to the janitors of the Negro schools. This restoration of 10 per cent brought the salaries up to the schedule which they are now receiving and which is to be found on a preceding page of this report.

The amounts which the janitors of the larger schools are paying for additional help in cleaning the buildings ranges from \$30 to \$55 per month. These amounts, as urged by the janitors, being all that they can possibly afford to pay from their lump-sum amounts and still have enough left for themselves and their families. Although the board of education provides free of charge buildings in which the janitors live and also provides the fuel and light, nevertheless it is obvious, when the lump-sum amounts apportioned to each are reduced by an amount ranging from \$30 to \$50, that an unsatisfactory situation is likely to arise for two reasons, in the first place, for the

large buildings \$30 to \$55 per month is not sufficient to obtain the additional help which is needed, and, in the second place, the amount left for the janitor himself after assistance has been employed is not adequate.

#### A PLAN FOR JANITOR SERVICE.

The present arrangement, therefore, is bad, not only for the reasons already mentioned but for the further fact that it subjects the janitors always to the suspicion that they are not sufficiently liberal in providing helpers. As long as this plan prevails, the janitors of the schools, no matter how conscientious they are—and there are undoubtedly a number who are taking a deep personal interest in their work—are always likely to be subjected to criticism which may or may not be justified. It would seem a much better arrangement for the board of education to work out an adequate wage scale based upon the amount of floor space which the several janitors are required to care for, modified by special conditions which obtain in the several schools, pay the janitor a sufficient sum for the responsibility of supervising his helpers, and then employ directly whatever assistance the board deems is necessary in order to keep the buildings in the condition that the board demands. At the same time the board should hold the principal of a given school responsible for his building and should accept his recommendation in respect to the efficiency or lack of efficiency of both the janitors and the helpers which the board employs. Under this arrangement any standard of cleanliness and of efficiency in the upkeep of the buildings can be reached which the community demands and which the board requires without securing this at the expense of the janitors themselves, who are under the present wage schedule undoubtedly working on too close a margin.

#### THE BOSTON PLAN OF FIXING JANITORS' SALARIES.<sup>1</sup>

For 15 years or more Boston has had a plan for determining the schedule of salaries for janitors which has worked satisfactorily and which has been adopted widely. According to this plan compensation is allowed on five items: (1) Cleaning; (2) heating, ventilating, and superintendence; (3) washing of windows; (4) care of yards and sidewalks; (5) care of lawns.

In fixing compensation for cleaning, the cubic contents of a building are computed in accordance with the rule of the National Association of School Accounting and Business Officials and indorsed by the American Institute of Architects. Compensation, based on

<sup>1</sup> A Schedule of Compensation for Janitor Service of School Buildings, Boston, School Document No. 10, 1918.

this item, is reckoned at the rate of 4 mills for the first 10,000 cubic feet; 3.8 mills for the second 10,000 cubic feet; 3.6 mills for the third 10,000 cubic feet, and so on as per schedule up to the total cubic contents of the building.

In fixing compensation for the second item, "heating, ventilation, and superintendence," the cubic contents of the building are also used as a basis, except that buildings are classified into three groups, depending upon the type of heating system used, some requiring more attention and skill than others. For "class A" buildings the compensation runs 5 mills for the first 10,000 cubic feet, 4.7 mills for the next 10,000 cubic feet, and so on as with the item of "cleaning." The heating, ventilation, and superintendence of "class B" and "class C" buildings are compensated for at a lesser rate.

Compensation for "washing of windows," the third item, shall be on the basis of the total area of the sashes and at the rate of 5.5 mills per square foot for one washing on both sides. Additional washing per year when ordered by the board shall be at the same rate, which also applies to all windows, transoms, doors, and doors in permanent bookcases in the building.

The fourth item, "care of yards and sidewalks," shall be on the basis of their total area and at the rate of 3 mills per square foot. So also with the item "care of lawns," except that the rate allowed is 3.3 mills per square foot.

The annual salary of each janitor shall be arrived at by applying the rates of compensation for cleaning, heating, ventilation, and superintendence to the cubic contents of the buildings; and by applying the rates of compensation for washing of windows and the care of yards, sidewalks, and lawns to the several areas. The total of the amounts shall constitute the annual compensation for janitor service.

This schedule does not include compensation for evening schools, school centers, vacation schools, playgrounds, and lectures or concerts, for each of which additional compensation is allowed.

A schedule of salaries worked out on some such basis as the foregoing would be much more just than the haphazard and unscientific system which Memphis now employs. Such an analysis of the duties of janitors, furthermore, would make it easy for the board to discriminate wisely in securing the helpers needed in the larger buildings.

#### EXTRA DUTIES OF JANITORS.

With a better organization in many of the schools and with a more thoughtful cooperation with the janitors on the part of principals and teachers better results than now obtain can be secured, for, according to the present custom in many of the schools, janitors are

called upon to perform services and duties which do not properly fall within their field of activity. Some principals ask the janitors to be responsible for the conduct of the children before the teachers arrive in the morning and after they leave in the evening. In order that the janitors may supervise the children properly it is often necessary for them to drop their work, thereby causing delay in doing what is necessary in connection with the care of the buildings. This is especially objectionable in the winter months, when the attention of the janitor must be given to the heating of the building, for to be called away from the furnace at times when he is trying to get up sufficient heat to make the building comfortable is very disconcerting. This source of friction between the janitors and the school authorities, which is one of the causes for the apparent inefficiency of the work, could be greatly lessened if the principals were to organize the activities of their schools by having teachers in rotation on duty at an early hour and requiring them to remain in the afternoon as long as there are children in the building. By such an arrangement as this the janitors would be relieved to a large extent of disciplinary matters, about which they ought not to have anything to do anyway, and be left free to do the work that must be done promptly if the building is to be kept in a sanitary condition.

Not only in matters of this kind, but in many others, principals and teachers by a little forethought can lighten the duties of the janitors very greatly. For example, in some of the schools during inclement weather boys are permitted to march into the schools at the close of intermissions without cleaning the mud off their shoes; in consequence bushels of dirt are carried into the halls and classrooms, which have to be swept up and carried out as soon as the school session closes. By graveling the yards, by requiring the city to put in sidewalk approaches to all schools, and by expecting the principals to insist upon clean shoes before the children are permitted to enter the building, the problem of the janitors in this respect will be very greatly lightened. Cooperation can also be worked out in the matter of keeping the yards, as well as the rooms and halls, clean of refuse.

The survey staff would suggest, therefore, that the present situation in respect to janitor service can be greatly helped by a readjustment of the wage schedule, by abolishing the lump-sum payment to janitors out of which helpers are to be provided, by relieving the janitors of responsibilities for the discipline and control of children which fall within the province of the duties of the school corps, and by so organizing the several schools that refuse and dirt will be taken care of to a reasonable degree. (For a further discussion of the problem of the care of buildings see Chapters III and X.)

## A "SCHOOL" FOR JANITORS.

School janitors, like most people who work for the public, are rarely appreciated at their true worth. Few persons have any idea of the qualifications which ought to be required for the office. In fact, the impression is, very general that "most anyone will do for school janitor."

Very little has been written which will aid the janitors in their work, and there is scarcely a school or college in the United States that offers the kind of training they need. Their relation to other departments of the school organization has never been satisfactorily determined; and their qualifications have never been properly standardized, so that a school board might know what constitutes a good school janitor or that janitors can know wherein they fall short of what is expected of them.

In a few cities in the West, notably Portland, Oreg., Berkeley and Oakland, Calif., "schools" for janitors have been conducted which the janitors are obliged to attend.

These "schools" comprise a series of lectures given by experts called in for the purpose, each lecture being followed by a free discussion.

The following list of lectures, as given in Oakland, Calif., in 1917, indicates the nature as well as the value of such a "school":

1. What the board of education expects of the custodian.
2. What the superintendent expects of the custodian.
3. What the business manager expects of the custodian.
4. Cooperation between the principal and the custodian.
5. The custodian's relation to the pupils.
6. The custodian's relation to recreation and social center activities.
7. The custodian's part in the wider use of the school plant.
8. Some conditions in the school environment which may affect the child's health.
9. The use and care of the drinking fountains.
10. How to treat emergencies at school.
11. Fire prevention and fire control.
12. Heating and ventilation.
13. The operation of oil burners. (Oakland schools burn oil for fuel.)
14. The use and care of steam heating apparatus.
15. Automatic temperature regulation.
16. The operation and care of school electrical equipment.
17. The oiling of floors.
18. By way of review, "Am I a custodian, or only a janitor?"

<sup>1</sup> Board of Education (Oakland, Calif.) Bulletin No. 3 (June, 1917), The School Custodian, His Duties and Responsibilities.

#### 4. PUPIL PROMOTIONS AND FAILURES.

##### SUGGESTIONS MADE BY TEACHERS.

"The plan of promotion is not good. All depends upon the grade made in the final examination."

"Less stress on examinations."

"The process of memory is used rather than the processes of understanding, judging, and reasoning."

"No more putting up children who fail to pass examinations into the class with those who worked hard and passed. It lowers the standard and lessens the incentive of pupils."

"A better system of grading and promoting, so that the brighter ones may go ahead and not run around in circles, mentally and maddeningly waiting for the others."

"Allowed to stay, 'failed' and not 'squeezed' into the next grade."

"That children who fail be required to go over the work, and not promoted when they can not make a passing grade."

"A fixed, definite method of promoting pupils and raising the standard of scholarship."

"Do not try to teach them so much textbook facts but more research work."

"More weak children should be allowed to fail."

"Outlines are used which are long and clumsy. They suggest and even give answers, instead of leading the child to search for the truth."

"Make them more self-reliant by requiring them or leading them to find out for themselves."

"That children be trained from lower grades up to do some of the work and not to depend on the teacher for everything."

"Less written and more oral work throughout the grades."

"I think that there is too much work attempted in the schools of Memphis and too many subjects. I think the per cent of failures shows this."

"Teachers here do too much of the work and the children do too little; one, for instance, writes questions on board and writes answers on the same day. Where does the child gain by that? We have too many 'copyists.'"

"A change in the method of promoting pupils."

"A definite program for the year's work at the beginning of the year, so that teachers and pupils may know the extent of each term, whether there will be a summer school or not, what holidays will be given, etc. Especially do we of the high school need to know that when we begin a recitation it will not be interrupted."

"A definite assignment of work at least a term in advance. (We do not know until the day the term opens what subjects or grades we will teach.)"

"Have teachers reelected before term ends, that programs may be made for next fall."

"A definitely planned for and limited auditorium period which does not disrupt the day's program."

"Closer union between grammar and high school."

"Opportunity for high-school teachers to visit other schools, especially the grades 7 and 8."

"High-school teacher on committee for making course of study for the eighth grade. Of course, a junior high would help materially."

"Closer articulation between grammar and high school."

"Junior high schools to cover the wide breach between our grammar and high school."

THE PROMOTION PLAN.

For a number of years the promotion of pupils above the third grade in the Memphis schools has been determined by a formal examination held during the final week of the school term under the direction of the superintendent, who prepares, or has prepared for him, the questions which are asked. If the pupils fail in passing the required standard in a given subject in their examination, then their standing as shown by the teacher's rating based on the record of daily work and upon written tests given at various times during the term is averaged with the mark gained in the final examination. If this results in raising the pupil to the required level, then he is promoted; otherwise he fails.

A summary of the results obtained under the operation of the plan in respect to the promotion and failure of pupils in the elementary division for the term closing February 21, 1919, follows:

TABLE 15.—Failures in the grades, distributed by grades, February, 1919.

Grades.	Net enrollment.	Withdrawals.	Number remaining to end of term.	Failed.	
				Number.	Per cent.
WHITE SCHOOLS.					
First grade.....	2,142	207	1,935	329	17
Second grade.....	1,487	145	1,342	184	14
Third grade.....	1,461	136	1,325	185	14
Fourth grade.....	1,423	118	1,305	149	11
Fifth grade.....	1,412	111	1,301	269	21
Sixth grade.....	1,248	110	1,138	190	17
Seventh grade.....	944	63	881	111	13
Eighth grade.....	619	36	583	38	6
Total.....	10,736	926	9,810	1,425	15
COLORED SCHOOLS.					
First grade.....	1,853	402	1,451	449	31
Second grade.....	972	103	869	114	13
Third grade.....	859	103	756	117	15
Fourth grade.....	696	86	610	129	21
Fifth grade.....	584	65	519	87	17
Sixth grade.....	428	34	394	47	12
Seventh grade.....	303	50	253	34	13
Eighth grade.....	43	4	39	6	15
Total.....	5,763	847	4,917	968	19
Grand total.....	16,499	1,773	14,727	2,393	16

<sup>1</sup> Seventh and eighth grade pupils at Vocational High School and at Kortrecht High School not included.

An examination of the table suggests at once that, for whatever reason, an unduly large percentage of children are failing to pass their examinations and to win promotion; for, in general school practice where failures run higher than from 8 to 10 per cent of those remaining to the end of the term, it is made a matter of investigation by the superintendent's office. Among the white elementary schools the lowest percentage of failure is found in the eighth grades of the system and the highest in the fifth grades, the range being from 5 per cent in the former to 20 per cent in the

latter. With the grades of the colored schools the range of failures is somewhat different, running from 10 per cent in the seventh and eighth grades to about 30 per cent in the first grades.

A second observation which is apparent is this: That the table offers no evidence to show that there is any standardized basis of promotion and failure in the system. With this point of variation among schools in mind in respect to the percentages promoted and failed, another table was prepared showing the distribution of failures among schools within the limits of a single grade. The fifth grade was selected at random for this purpose. The following table shows the failures among the different schools of the system:

TABLE 10.—*Failed in the fifth grade distributed by schools, February, 1919.*

Schools.	Not en- rollment.	With- drawals.	Number remain- ing to end of term.	Failed.	
				Number.	Per cent.
<b>WHITE.</b>					
Bruce.....	426	6	120	1	1
Church Home.....	4	1	3	0	0
Cummings.....	68	2	66	19	29
Gordon.....	79	6	73	24	33
Quthrie.....	58	8	50	3	6
Hill.....	123	21	102	33	39
Idfewild.....	97	4	93	2	2
Lauderdale.....	114	10	104	7	7
Leath.....	77	6	61	17	28
Leath Orphanage.....					
Lenox.....	40		40	5	12
Madison Heights.....	45	3	42	3	7
Mauzy.....	91	6	85	24	29
Marrill.....	82	11	71	11	15
Open Air.....	4	1	3	1	0
Peabody.....	42	1	41	1	0
Pope.....	99	9	90	27	30
Riverside.....				46	
Rozelle.....	60	6	54	12	22
Smith.....	71	2	69	5	7
Snowden.....	57	5	47	7	13
St. Paul.....	75		75		
Total.....	1,412	111	1,299	248	19.3
<b>COLORED.</b>					
Caldwell.....	99		99	0	0
Carnes.....	228	6	219	4	2
Charles.....	28	0	28	0	0
Grant.....	219	8	211	9	6
Greenwood.....	149	11	138	12	10
Klondike.....					
Kortrecht (Gammisr).....	213	2	211	13	7
La Rose.....	355	15	340	28	9
Porter.....	247	8	239	6	3
Virginia Avenue.....	315	12	293	15	7
Total.....	1,623	63	1,788	87	5

Complete reports not available.

This distribution of failures in the fifth grade among the schools of the city brings out strikingly the great variation in practice. In some schools, such as the Bruce, Smith, Snowden, Idfewild, there were no failures at all, or practically none, while in other schools, such as in the Cummings, Gordon, Mauzy, Leath, Rozelle, Pope and the A. B. Hill, a fifth and even a third of the grade failed.

It is not reasonable to suppose that in large schools, such as the Bruce, Smith, Snowden, and Idlewild, the children have attained such proficiency that all deserve to be promoted; neither can one believe, under normal conditions, that such a large percentage of the same grade in the second group of schools should fail.

THE SITUATION IN THE CENTRAL HIGH SCHOOL.

An examination of the records of the Central High School, with respect to promotions and failures, was made for the same term, that ending in February, 1919. On account of space limitations, only the records of the ninth grade will be discussed. The following table shows the facts for the principal subjects studied by the pupils of this grade:

TABLE 17.—Promotions and failures, ninth grade, Central High School, February, 1919.

Class.	Number of pupils remaining.	Number of pupils who dropped out.	Promoted.		Failed.	
			Number.	Per cent- age.	Number.	Per cent- age.
Algebra:						
Ninth, first.....	262	14	184	70.6	78	30.0
Ninth, second.....	116	14	78	67.2	38	32.8
Total.....	378	28	262	69.3	116	30.7
English:						
Ninth, first.....	307	50	229	74.6	78	25.4
Ninth, second.....	152	18	139	91.4	13	8.6
Total.....	459	68	368	80.0	91	20.0
Latin:						
Ninth, first.....	118	2	74	62.7	44	37.3
Ninth, second.....	75		44	58.6	31	41.4
Total.....	193	2	118	61.2	75	38.8
French F:						
Ninth.....	242	34	113	46.7	129	53.3
Spanish F:						
Ninth.....	68		32	47.1	36	52.9
History:						
Ninth, first.....	153	14	137	90.0	16	10.0
Ninth, second.....	69	5	45	65.0	24	35.0
Total.....	222	19	182	82.0	40	18.0
General science:						
Ninth, first.....	84	7	37	44.0	47	56.0
Ninth, second.....	57	3	37	64.9	20	35.1
Total.....	141	10	74	52.5	67	47.5
Domestic science:						
Ninth, first.....	121	25	109	90.0	12	10.0
Ninth, second.....	69	9	66	95.7	3	4.3
Total.....	190	34	175	92.1	15	7.9

The foregoing table indicates that the number of failures in the ninth grade of the Central High School for all subjects taken except history and domestic science is appalling. In algebra, 30 per cent of

the grade failed; in English, 20 per cent; in Latin, 38.8 per cent; in French, 53 per cent; in Spanish, 33 per cent; in history, 10 per cent; in general science, 19 per cent; and in domestic science, 6 per cent. Besides this, during the term many of the pupils dropped out of their classes before the term ended, a number of them, doubtless, because they had become discouraged in their work. For example, in the classes in algebra, 28 pupils are reported to have dropped out; in English, 66; in Latin, 2; in French, 34; in Spanish, none; in history, 19; in general science, 10; and in domestic science, 34. These pupils, having left their classes before the end of the term, do not show in the failures as recorded in the preceding table.

COMPARISON WITH OTHER HIGH SCHOOLS.

In this connection it will be of interest to compare the failures in the ninth grade of the Central High School of Memphis with the failures in the same grade in the schools of other cities. This comparison is shown in the following table:

TABLE 18.—Ninth grade failures in several cities.

Subjects.	Central High, Memphis.	All high schools, Oakland. <sup>1</sup>	Los Angeles <sup>2</sup> High School.	All high schools, San Francisco.	All high schools, Denver.	All high schools, Trenton.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
English.....	20.0	9.6	10.1	10.2	14.8	5.0
History.....	10.0	8.8	6.0	10.8	13.7	11.0
Mathematics.....	30.7	19.9	20.1	16.0	23.5	27.0
Science.....	19.2	12.0	7.2	7.8	12.8	9.0
Ancient languages.....	38.8	28.1	25.3	15.0	22.0	22.0
Modern languages.....	50.0	24.8	12.3	15.0	6.0	6.0
Domestic science.....	6.8	3.6	.0	2.0	.0	8.0

<sup>1</sup> Report of Superintendent of Schools, Oakland, Calif. (1917-18), p. 114.  
<sup>2</sup> Report of Board of Education, Los Angeles, Calif. (1914), p. 1.  
<sup>3</sup> Survey Report, San Francisco Schools, U. S. Bureau Education, Bul. 1917, No. 46, p. 60.  
<sup>4</sup> Board of Education Report, Denver, Colo. (1917-18), p. 130.  
<sup>5</sup> Report of Board of Education, Trenton, N. J. (1918), p. 19.

VARIATIONS IN STANDARDS OF PROMOTIONS.

It is to be noted that, taken by subjects, there is a variation in the percentage failed in the Central High School ranging from 6 per cent in the domestic-science classes to a maximum of 53 per cent in the French classes. This would appear to indicate that as among the groups of teachers teaching algebra, English, French, etc., there is no correlation in respect to a standard of promotion and of failure. It will be of interest to carry this point of uniformity of standards a step further and inquire if there is any considerable variation in the percentage failed as among the teachers of a single group, among the teachers of algebra, for example, or among those

of English. The following table will show the facts for several groups of teachers who taught ninth-grade beginning classes:

TABLE 10.—Ninth, first, classes.

ALGEBRA.

Teachers.	Number in class.	Promoted.		Failed.	
		Number.	Percentage.	Number.	Percentage.
Teacher No. 1.....	87	55	63.2	32	36.8
Teacher No. 2.....	60	45	75.0	15	25.0
Teacher No. 3.....	56	38	68.0	18	32.0
Teacher No. 4.....	59	46	77.9	13	22.1

ENGLISH.

Teacher No. 5.....	94	62	66.0	32	34.0
Teacher No. 6.....	66	50	76.0	16	24.0
Teacher No. 7.....	55	53	96.3	2	3.7
Teacher No. 8.....	21	15	71.0	6	29.0
Teacher No. 9.....	53	32	60.4	21	39.6
Teacher No. 10.....	18	17	94.4	1	5.6

FRENCH.

Teacher No. 11.....	52	21	40.0	31	60.0
Teacher No. 12.....	127	51	40.0	76	60.0
Teacher No. 13.....	63	41	65.0	22	35.0

LATIN.

Teacher No. 14.....	31	22	70.0	9	30.0
Teacher No. 15.....	87	52	60.0	35	40.0

HISTORY.

Teacher No. 16.....	62	56	90.0	6	10.0
Teacher No. 17.....	91	81	90.0	10	10.0

The preceding table gives the records respecting promotions and failures of 17 different teachers who taught beginning ninth-grade classes in the several principal subjects. An examination of the column marked "percentage failed" will show that the range of variation in the entire list is from a minimum of 3.7 per cent by one teacher of English to the maximum of 60 per cent by two teachers of French. With the exception of two teachers of English and the two teachers of history, all apparently agree in having a percentage of failures among their pupils which is startling, to say the least, and indicates clearly that something is radically wrong somewhere, for a school system that is by its own records no more effective in getting pupils to do work of a satisfactory quality than is indicated by these reports needs to subject itself to a very thorough heart searching.

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The figures, too, it must again be pointed out, take no account of the pupils who became disheartened and dropped out before the term closed.

REASONS FOR NONPROMOTIONS IN THE GRADE SCHOOLS.

Fortunately, Memphis has an unusually excellent system of term reports, which are filed with the superintendent by the principals and teachers. Among other matters of significance, teachers are asked to enumerate the reasons which in their judgment account for the non-promotions. A summary of the reasons given by the teachers of the elementary schools for the term closing February, 1919, follows:

TABLE 20.—Causes for nonpromotions in elementary schools, term ending February, 1919.

Causes.	First grade.	Second grade.	Third grade.	Fourth grade.	Fifth grade.	Sixth grade.	Seventh grade.	Eighth grade.	Total.
<b>WHITE SCHOOLS.</b>									
Home conditions.....	0	1	0	0	0	0	0	0	1
Irregular attendance.....	34	37	42	24	39	43	15	8	232
Not prepared for grade.....	3	0	1	3	8	3	1	0	54
Physical defects.....	23	3	7	3	4	4	1	0	45
Personal illness.....	25	8	14	11	16	8	5	0	91
Incapacity (mental).....	49	1	28	24	50	18	7	1	207
Entered grade late.....	0	1	5	5	3	1	0	0	15
Indifference.....	33	35	33	49	90	80	65	15	400
Slow.....	17	1	0	0	0	0	0	0	18
Left.....	39	47	18	16	21	19	9	3	171
Failure.....	8	0	37	14	38	14	8	1	120
Undeveloped.....	10	0	0	0	0	0	0	0	10
<b>Total.....</b>	<b>329</b>	<b>164</b>	<b>185</b>	<b>149</b>	<b>209</b>	<b>180</b>	<b>111</b>	<b>28</b>	<b>1,425</b>
<b>COLORED SCHOOLS.</b>									
Home conditions.....									
Irregular attendance.....	272	47	51	60	26	32	6	3	497
Not prepared for grade.....									
Physical defects.....	13		6	2		1			22
Personal illness.....	115	13	3	14	4		2		151
Incapacity (mental).....	9	7	13	6	22		1		69
Entered grade late.....		1	10	10	8		5		40
Indifference.....	37	46	34	31	27	17	10		199
Slow.....									
Left.....									
Failure.....									
Undeveloped.....									
<b>Total.....</b>	<b>446</b>	<b>114</b>	<b>117</b>	<b>129</b>	<b>87</b>	<b>47</b>	<b>24</b>	<b>4</b>	<b>868</b>
<b>Grand total.....</b>	<b>775</b>	<b>278</b>	<b>302</b>	<b>278</b>	<b>356</b>	<b>227</b>	<b>135</b>	<b>32</b>	<b>2,393</b>

An examination of the preceding table shows that for purposes of analyzing the problem of retardation in the grades, several of the items can be grouped. For example, absence on account of illness can be combined properly with the item, "irregularity of attendance"; so another group could properly comprise "mental incapacity," "slow," and "indifference," for these terms, probably, for the most part are merely different ways of saying that the children of the group are not interested in their work. With this grouping of items in mind, we find that "irregularity of attendance," according to the teachers, will account for the nonpromotion of 383 cases, while so-

called "indifference" explains 626 cases. Thus 1,000 of the 1,425 instances of nonpromotion, in the judgment of the teachers, are to be attributed to irregularity in attendance and to indifference. In point of fact, much of the irregularity in attendance, though not all of it, can be set down to the pupils' lack of interest in their school work, for if they were vitally interested, there would be fewer absences than now appear.

ATTENDANCE AND ABSENCE IN ELEMENTARY SCHOOLS.

Fortunately, again, the records of the Memphis schools show the facts of attendance and absence in a significant way. The following table gives the facts according to the reports filed with the superintendent:

TABLE 21.—Distribution of attendance by periods in elementary schools, term ending February, 1919.

ATTENDANCE.	First grade.	Second grade.	Third grade.	Fourth grade.	Fifth grade.	Sixth grade.	Seventh grade.	Eighth grade.	Total.	Per cent of total.
WHITE SCHOOLS.										
Attending entire term.....	56	57	56	59	74	75	50	42	469	4.2
Attending at least 80 days.....	329	377	388	376	416	435	349	227	2,893	26.9
Attending at least 70 days.....	610	822	668	497	447	399	320	233	3,456	31.0
Attending at least 60 days.....	351	190	201	183	181	157	100	45	1,408	12.6
Attending at least 50 days.....	235	100	122	85	84	44	32	22	724	6.6
Attending at least 40 days.....	127	73	66	63	41	25	30	9	444	4.0
Attending at least 30 days.....	119	59	54	49	54	48	20	9	412	3.7
Attending at least 20 days.....	118	78	68	53	47	44	18	11	437	3.9
Attending at least 10 days.....	143	89	87	74	66	56	28	23	566	5.1
Attending less than 10 days.....	88	48	58	52	33	26	20	8	329	3.0
Total.....									11,137	
COLORED SCHOOLS.										
Attending entire term.....	78	40	41	29	31	31	10	1	238	4.3
Attending at least 80 days.....	156	198	155	142	149	92	43	5	940	16.8
Attending at least 70 days.....	314	231	209	168	139	97	68	7	1,233	21.7
Attending at least 60 days.....	218	131	115	110	89	59	34	11	757	13.3
Attending at least 50 days.....	183	75	66	66	42	39	13	10	499	8.0
Attending at least 40 days.....	144	51	57	38	20	23	10	9	345	6.1
Attending at least 30 days.....	209	68	75	72	35	21	13	8	485	8.7
Attending at least 20 days.....	195	63	55	55	32	18	8	1	427	7.5
Attending at least 10 days.....	238	82	44	60	30	9	6	2	471	8.3
Attending less than 10 days.....	132	29	27	30	28	8	15	2	281	5.0
Total.....									5,678	
Grand total.....									16,815	

[Note: The records of the Riverside and Klondike schools do not appear in this table, neither do the 7th and 8th grades of the Vocational High School and of the Korrecht High School.]

According to this table only 4 per cent of the white children in the elementary schools attended the full term; 30 per cent attended four months or more (80 days); 61 per cent attended three and one-half months or more (70 days); about three-fourths of the children (73 per cent) attended three months (60 days) or more; while the

remaining quarter of the children failed to attend as much as three months. While there is nothing to show the correlation between the number who failed of promotion and the facts of nonattendance, nevertheless it is probable that there is such a correlation, for it stands to reason that a pupil who, for whatever cause, is absent a great deal from his recitations can not expect to fare so well in terms of school credits as one who is always in his place, and who therefore gets all the benefit of instruction. Methods, then, directed toward cutting down the irregularity of attendance which is shown in this table will undoubtedly help in lessening the number of failures in school work. In the view of the teachers themselves, however, irregularity will account for a percentage of nonpromotion only.

#### OTHER CAUSES FOR NONPROMOTION.

A number of possible causes suggest themselves as among the factors accounting for the unusual and disturbing percentage of failure in the work of the schools. Obviously lack of supervision in the grades and in the high schools is an important factor in nonpromotion, for the preceding tables indicate that there is little or no team work in the system. Again, teachers, especially the high-school teachers, are not taking the children where they find them in point of preparation, but are assuming a preparation which the teachers of the elementary schools have not given. Probably there is a lack of cooperation between the high school and elementary school teachers. Possibly not enough attention is being given to children by way of teaching them how to study. Again, it is not improbable that parents do not take a sufficiently serious view of school work, and in consequence permit the attention of the children to be diverted from their work by too many distractions of a social character. Perhaps, too, there have been too many interruptions to the work of the schools themselves. While doubtless all these reasons and more are factors in the situation, nevertheless the survey staff is convinced that a more weighty factor than any of these is to be found in the fact that promotions are based upon formal examinations, and that these examinations dominate the work of the system and color everything which the teachers do. For a further discussion of the factors entering into failure, see Chapter V.

#### PROMOTION BY FORMAL EXAMINATION.

Written examinations given in the form of tests at intervals during the term have a place in school procedure for which it is impossible to find a complete substitute, but as a basis for determining a pupil's fitness for promotion the formal examination held at stated times has

fallen into disrepute. It is a useful means, for example, of showing the teacher where the preparation has been weak and where it has been strong; it trains the pupil to use language concisely and with precision under sharply drawn limits of time; it requires the quick exercise of judgment in respect to what is essential and what is relatively less essential; and it tests the ability quickly to organize knowledge and information in a new setting. But, in general, when promotion is made to turn upon it, in whole or in any considerable degree, the examination inevitably leads to "cramming," to undue worry and nervousness, and to working with the sole end in view of passing, causing the entire work of the school to center about the one idea. It puts a premium upon wrong methods and stresses what should be but a mere incident in the plan of education; it provokes bitterness and unseemly strife between parents and teachers; and it occasions a vast amount of unnecessary and unprofitable labor for the teacher in reading an endless number of papers, in keeping records, and in making out reports.

This is precisely the situation which the survey staff found in Memphis during the month of May, when they observed the work of the schools. Everywhere everybody was "getting ready for the examinations," which meant that with but discouragingly few exceptions the children were being drilled almost constantly upon memory facts. Old examination lists were much in evidence, as these, it was thought, would give a line on the nature of the forthcoming examination. What the nature of the instructional activities were prior to the visits of the members of the staff of course we can not know, except by inference, but certainly during the month which the staff spent in the classes they saw very little teaching of the kind which really educates through getting the child to think for himself, but they did see an immense amount of the "cramming" of memories with isolated facts and unrelated definitions which were without value except as these might help the child to get by the prospective examinations. More discussion in teaching and less memorization is needed. A system, however, which is dominated by the formal examination will inevitably stress memory work, and thereby to a dangerous degree teaching tends to become formal and mechanical and not educative.

Furthermore, that the formal examination is no criterion for determining ability is a conclusion abundantly supported by an examination of the school careers of men who have become famous. For example, Thomas A. Edison never could pass his school examinations, and when his teacher reported that it was a waste of time for him to attend school, he was taken out and never returned. Charles W. Eliot, while president of Harvard University, once remarked that he would not have been able to pass the entrance examinations of his own university. Henry Ward Beecher stood

sixty-fourth in an examination in grammar, while the boy who ranked first became a barber in a southern city. It is related that a Japanese university once appointed a faculty committee to investigate and report upon the question as to what examination could be given the youth of that land in order that young men of the greatest promise for the future might be selected. After an exhaustive study of the biographies of eminent men the report submitted was: "The one most prevalent characteristic of men of mark in their school days is that they could not pass their examinations." McAndrew,<sup>1</sup> who mentions these instances, among other illustrations, reports that he once took the examination records of 90 pupils entering a private high school and divided them into 10 groups, according to rank. At the end of each year for a period of years he reclassified them into the same groups, and expressed the progressive standing of each pupil by a diagram consisting of lines which theoretically should have run in nearly a straight line across the page. Actually, however, the lines crossed and recrossed as lowest-group pupils rose to the highest group and the highest fell into medium or low places.

#### THE INACCURACY OF TEACHERS' MARKS.

It is inconceivable that there is any such variation in the actual ability of the children of Memphis as is disclosed in the foregoing study of their promotion records, for children are pretty much the same the world over in respect to their reaction to school instruction. That is to say, the average of a group in one part of the country will measure up pretty close to the average of a group of the same age in any other part of the country. The variation comes, not among the children, but among the teachers, in their estimate of what the pupils have accomplished. A number of studies have been made during the last few years to determine the accuracy and reliability of the marks which teachers give to pupils. An interesting summary of several of these investigations is to be found in Monroe, DeVoss, and Kelly: "Educational Tests and Measurements." Houghton Mifflin Co., 1917.

Carter,<sup>2</sup> for example, in 1911, took the marks of the eighth-grade pupils who had entered high school from three elementary schools and compared them with the marks received in the high school. He reasoned that if the marks were an accurate rating of the pupil's ability, in general the same relative position obtained in the elementary schools would be maintained in the high school. He found,

<sup>1</sup> McAndrew, Our Old Friend, The Examination, Nat. Educ. Assoc., 1910, p. 527.

<sup>2</sup> Carter, R. E. Correlation of Elementary Schools and High Schools. *The Elementary School Teacher*, vol. 12, pp. 108-112.

however, that there was a complete reversal from what one would expect, for the pupils coming in from the school which gave the lowest marks outstripped the others in maintaining or increasing their original rank.

Kolley,<sup>1</sup> in 1913, made a similar study of the marks of sixth-grade pupils coming into a common departmental school for seventh-grade work from four ward schools. To quote his conclusion:

This means that for work which the teacher in school C (one of the ward schools) would give a mark of "G" (good) in language, penmanship or history, the teacher in school D (another ward school) would give less than a mark of "F" (fair).

Starch and Elliott,<sup>2</sup> to mention but one other of many investigations of the accuracy of teachers' markings, made a facsimile reproduction of an examination paper handed in by a pupil in plane geometry and sent a copy to the teachers of geometry of all the high schools included in the North Central Association of Colleges and Secondary Schools, requesting that they mark the paper on a scale of 100 per cent. One hundred and sixteen teachers complied, with the following results: Two of the ratings were above 90, while one was below 30; 20 were 80 or above, while 20 others were below 60; 47 teachers gave a passing mark or above, while 69 teachers gave a mark which would have failed the writer of the paper.

These and other investigations of similar character point inevitably to the conclusion that teachers' marks, as determined in most schools, are inaccurate and unreliable records of the performance, or ability, or accomplishment of pupils, and that the faith which both pupils and teachers have placed in traditional systems of marking is a blind, unreasoning one. Is a teacher rating merely the performance of a pupil in the particular examination set? Or does she take into account the pupil's ability? Or, again, is it his accomplishment extended over a period of considerable time that she is rating? Others, again, may have in mind the pupil's effort. Still others may try to show the degree of improvement the pupil has made within a given period. The question: "What do we mark?" was put down by one superintendent to his teachers' and the following were some of the answers he got: "Improvement," "ability," "serious purpose," "moral qualities," "interest in work," "accomplishment," "accuracy, neatness, and promptness," "acquisition of knowledge." Again, what is the 100 per cent ideal which the teacher has in thought? What would the zero point represent on a percentile scale? "Does 50 per cent," to quote a writer of school prob-

<sup>1</sup> Kelly, F. J. Teachers' Marks. Teachers' College Contributions to Education, No. 86, p. 7.

<sup>2</sup> Starch and Elliott. Reliability of Grading High School Work. Sch. Rev., vol. 20, 21.

<sup>3</sup> Camp, Frederick S. Marks: An administrative problem. Sch. Rev., Dec., 1917.

lems, "mean half knowing a lesson, knowing half a lesson, knowing half as much as the teacher knows, half as much as the text, half what the pupil ought to know, or half what he could know?" The problem is not simplified because letters, meaningless in themselves, are adopted to register a pupil's rank, for usually these are merely symbols into which the percentile scale is translated.

The difficulty is at once apparent. The teacher has but a hazy and ill-defined theoretical standard of excellence in mind by which she judges as best she may the standing of her pupils. It is not an accurate basis of measurement, for the reason that it is shifting and variable in her own mind, and furthermore because she is trying to use one standard by which to express a judgment on a number of qualities which she wishes to take into account. As the standard of one teacher will be different, naturally, from that held by another, as long as the marking system is as it is, no other result can be expected than one in which there is a wide variation in expressed judgment. When, furthermore, there is a lack of coordination of work and of standards of judging the results, which invariably ensues if there be inadequate supervision, this variation in the percentage of pupils promoted in different classes will be greatly accentuated. The situation, then, in Memphis, bad as it is, in respect to lack of uniformity of standard, is not unusual except in degree. It will always obtain so long as the present marking system is retained and so long as teachers are not more closely supervised.

#### A PLAN BASED ON THE NORMAL DISTRIBUTION OF ABILITY.

The whole problem, however, would be greatly simplified were the teachers to discard the theoretical standard of excellence which they severally hold and frankly recognize that in relation to ability or effort or accomplishment, or, for that matter, any other quality they care to consider, their school class is a normal group of pupils, comprising a few individuals of marked proficiency, many of average attainments, and a few who are poor. Or, putting the fact another way; In every group not artificially selected there is a normal distribution with respect to any trait or qualification. The majority of the class will be found clustering pretty closely about the average or mean position, while the further above or below this mean one goes the fewer will be the individuals found.

For example, many careful studies have shown that in any class there are a few who are excellent as compared with the remainder of the class; about twice as many are very good; 40 to 50 per cent are somewhere around the average; about as many are poor as are good; and about as many are very poor as are excellent. It is very difficult

to measure the precise ability of a pupil; there is no known precise standard to use in measuring it, but it is not difficult for a teacher to pick out from 3 to 10 per cent of her class who are excellent and to place the others in four or five groups with respect to these. Furthermore, she does not need a week of formal examinations at the end of the term to make such a distribution. In short, as Bennett<sup>1</sup> says, "We can not presume to state how much ability a pupil has, nor how valuable his work has been, but we can state his relative standing in the class with reasonable accuracy."

Finkelstein,<sup>2</sup> in his study of marks given at Cornell University, recommends a five-division marking system based on the following distribution of the individuals of a given class: Three per cent, excellent; 21 per cent, superior; 45 per cent, medium; 19 per cent, inferior; 12 per cent, very poor. Of this last group, approximately 11 per cent should be conditioned and 1 per cent failed, he asserts. He holds that this distribution conforms to theoretical requirements and that it expresses fairly well the practice of Cornell University, as shown by the tabulation of more than 20,000 marks, extending over a period of three years and taken from 163 courses. His recommendations are made primarily for the high school and the university.

Other investigators have reached somewhat different conclusions regarding the distribution. Some of these are:

TABLE 22.—Distribution of students in examinations.

Investigators.	A		B		C		D		E	
	Per cent.									
Cattell.....	10	20	40	20	10	10	10	10	10	
Smith.....	10	15	50	15	10	10	10	10	10	
Ruediger.....	4	24	44	24	4	4	4	4	4	
Meyer.....	4	21	50	18	7	7	7	7	7	
Foster.....	3	22	50	22	3	3	3	3	3	
Dearborn.....	2	23	50	23	2	2	2	2	2	
Gray.....	7	20	42	21	7	7	7	7	7	
Calvert.....	7	24	38	24	7	7	7	7	7	
Statth:										
Elementary.....	10	39	39	8	4	4	4	4	4	
Advanced.....	15	44	33	6.5	2.5	2.5	2.5	2.5	2.5	

<sup>1</sup> Bennett, Henry E. *School Efficiency*. Ginn & Co., 1917.

<sup>2</sup> Finkelstein, I. E. *The Marking System in Theory and Practice*. Warwick & York, Baltimore, 1918.

These differences of opinion easily fall within the range of variation which a system, to be flexible, should permit. Such a scale could be stated as follows: Of the total number of marks given, let the A's comprise from 3 to 10 per cent; the B's from 15 to 22 per cent; the C's from 40 to 50 per cent; the D's from 15 to 22 per cent; and the E's, or failures, from 2 to 10 per cent.

A simple plan, discussed by Bennett,<sup>1</sup> which has worked satisfactorily is essentially of the same type as these, but with the proportions modified somewhat. It operates in this way: As early in the term as possible the teacher divides her pupils, not physically but for purposes of instruction, into four tentative groups; the first being the "best quarter" of the class; the second consisting of the "second-best quarter"; the third comprising all the others who have done work which will entitle them to be passed; and the fourth being those whose work is considered of a doubtful quality. These groups can be lettered, for convenience of reference, A, B, C, D, or for that matter, any other letters or symbols would do just as well. The special attention and effort of the teacher throughout the term should, of course, be devoted to those in group D, in order that the number therein who are finally required to repeat the term's work, designated as E, shall be as few as possible. And none should be failed, finally, without the sanction of principal and supervisor after careful review and consideration and with the question consciously in mind: Where will the pupil profit most, in the old grade or in the new?

In practice, it should be observed, the teacher will occasionally find it necessary to deviate from the adopted form of distribution. She should not hesitate to make such deviation if it seems to her to be necessary, but in every instance of failure to adhere she should be expected to make a full and satisfactory explanation to supervisor or superintendent.

Such plans as the foregoing are based upon two assumptions: That the work of a given grade and the standards demanded therein shall be so shaped that the large majority of the class shall at all times be doing successful work; also, that in every class the normal distribution of ability is approximately the same. Neither of these assumptions can be seriously questioned, we feel. Furthermore, the adoption of some such plan as this would make impossible such wide variations in standards of promotions as are to be found among the teachers of the schools of Memphis; for in each instance, under its operation, it is clear the class itself would virtually determine its own standard by which the individual members shall be judged in respect to promotion. Such a promotion basis as this would do away, too, with the necessity of spending so much of the all-too-limited time of the school on formal examinations and in grading the papers and recording and averaging the results.

In promoting children from one grade to another only one question need be asked, Is the child able to do the work of the grade with other children who are promoted?

<sup>1</sup> Bennett, Henry E. *School Efficiency*. Glencoe & Co., 1917.

### 5. THE ABILITY OF MEMPHIS TO FINANCE THE PROPOSED PROGRAM.

The practicability of any plan for the advancement of education must ultimately rest upon the ability of a community to pay for it. It is the purpose, then, of this section to discuss the question whether or not Memphis is able to give her children the advantages which progressive cities throughout the country are giving theirs. The first point to consider is the income which Memphis receives with which to conduct her various activities and to see how she distributes this amount.

#### THE WAY MEMPHIS APPORTIONS HER INCOME.

It will be of significance to see how the municipality of Memphis apportions the money which she receives and particularly to note what the proportion of it is which she gives to her schools in comparison with what other cities of the country are doing. The basis for coming at the rank of Memphis among cities in this respect is to be found in the statistics compiled by the Census Bureau for 1917 and published under the title "Financial Statistics of Cities Having a Population of over 30,000." Table 13. of this publication, shows that Memphis expended during 1917 \$14.18 per capita of population, on all her activities, and that the amount was distributed among these activities in the following way:

For general government, \$0.82; for police protection, \$1.75; for fire protection, \$1.53; for health and sanitation, \$1.38; for the extension and improvement of streets, \$2.63; for charities, \$0.97; for libraries, \$0.23; for parks and playgrounds, \$0.91; and for schools, \$3.68. The remaining \$0.28 of the aggregate amount was used for other miscellaneous purposes, all important but difficult to classify.

In themselves these figures mean very little. Not until they are compared and contrasted with the expenditures of other cities for the same purposes do they begin to take on meaning. The table which follows shows how the distributed expenditures of 219 cities look when viewed as an average:

TABLE 23.—Distribution of city expenditures, 1917.

Purposes.	Memphis.	Average of 219 cities.
General government.....	\$0.82	\$2.18
Police department.....	1.75	2.03
Fire department.....	1.53	1.65
Health and sanitation.....	1.38	1.94
Street department.....	2.63	2.04
Charities.....	.97	1.35
Libraries.....	.23	.25
Parks and playgrounds.....	.91	.57
Schools.....	3.68	5.91
All other purposes.....	.28	1.02
<b>Total per capita expenditure.....</b>	<b>14.18</b>	<b>19.97</b>

While this comparison helps us to see where Memphis stands in relation to the actual average expenditure of the 219 cities considered, yet, as her total expenditure is considerably less than the total average expenditure of the list, another table is needed to make her rank in this matter perfectly clear, and that is a table showing the proportion each item bears to the entire expenditure. This table follows:

TABLE 24.—Percentage distribution compared with other cities.

Purposes.	Memphis.		Average of 219 cities.
	Per cent.	Per cent.	Per cent.
General government .....	5.8		11.3
Police department .....	12.3		10.9
Fire department .....	10.8		8.6
Health and sanitation .....	9.8		10.1
Street department .....	18.6		10.6
Charities .....	6.8		7.1
Libraries .....	1.6		1.8
Parks and playgrounds .....	6.4		8.6
Schools .....	28.9		31.0
All other purposes .....	2.0		5.6

From this table it is apparent that, as compared with the average of 219 cities, Memphis's chief interest is in the police, fire, and street departments and also in her parks and libraries; that her interest in health and charities is somewhat less than the average of the cities listed; while in the expenses of general government and in the percentage of her income which goes to the schools she is far below the average of the 219 cities listed by the Census Bureau. Less than 26 per cent of Memphis's expenditure goes to the maintenance of her school department, whereas of the 219 cities of the country considered in these statistics the average expenditure for the schools is 31 per cent. That is, Memphis's proportionate expenditure for the schools would have to be increased nearly 20 per cent to bring her rank up to the average of the cities of the country.

Of 21 cities in the group of cities having a population of 300,000 and above, only 5 expended a smaller proportion of their income on their schools than did Memphis. Of the 45 cities in the next lower group, 100,000 to 300,000 population, the group to which Memphis belongs, she was lowest of all. Of the 62 cities in the group of 50,000 to 100,000 population, there were only 7 ranking lower than Memphis, and finally of the group of 91 cities having a population of 30,000 to 50,000, there were only 8 whose expenditures on their school departments, proportionate to that expended upon other lines of municipal activity, were less than that expended by Memphis. Thus of 219 cities enumerated by the Census Bureau having a population of 30,000 and above, there was an aggregate of only 20 ranking lower than Memphis in this particular. The following table gives the list of these cities, together with the percentage which the school department in each instance received:

TABLE 25.—The only cities spending proportionately less on schools than Memphis.

	Per cent of total expenditure given to schools.
Population of 300,000 and above (21 cities):	
Boston.....	25.5
Detroit.....	15.9
Baltimore.....	22.6
Buffalo.....	25.0
San Francisco.....	20.6
Population of 100,000 to 300,000 (45 cities):	
Memphis.....	25.9
Population of 50,000 to 100,000 (62 cities):	
Augusta.....	24.2
Jacksonville.....	16.5
Savannah.....	19.9
Charleston, S. C.....	19.5
Chattanooga.....	24.7
Mobile.....	22.5
Tampa.....	18.7
Population of 30,000 to 50,000 (91 cities):	
Montgomery, Ala.....	24.1
Butte, Mont.....	25.8
Galveston, Tex.....	21.3
Shreveport, La.....	24.9
Columbia, S. C.....	20.3
Lynchburg, Va.....	25.7
Brookline, Mass.....	23.3
Wilmington, N. C.....	23.6

PER CAPITA EXPENDITURE FOR SCHOOLS COMPARED.

The foregoing ranking is based on the proportionate expenditure for schools among the several municipal departments of the 219 cities listed. It will be interesting to learn where Memphis stands in relation to these cities in respect to the amount actually expended on the basis of per capita of population. The number of cities expending on their schools more than \$3.68 per capita of population, which is the amount expended by Memphis; also, the number of cities expending less than this amount are shown in the following table:

TABLE 26.—Per capita school expenditure of 219 cities in 1919.

Cities.	Number above Memphis.		Number below Memphis.	Total number of cities.
	\$3 and above.	\$3.68 to \$4.00		
All cities 300,000 and more.....	17	3	3	21
All cities 100,000 to 300,000.....	27	15	3	44
All cities 50,000 to 100,000.....	23	17	13	53
All cities 30,000 to 50,000.....	22	20	16	58
Total.....	121	55	35	211

Memphis, then, is seen to stand No. 34 from the bottom of the list of 219 cities in respect to the amount spent on school maintenance per capita of population. In the group of 45 cities to which Memphis belongs, the group whose population ranges from 100,000 to 300,000, there are only two cities below her, namely, Birmingham, whose expenditure was \$2.83, and Fort Worth, with an expenditure of \$3.11.

Of the 185 cities of the list which expend more than Memphis does, 25 of them expend double the amount or more per capita. This list follows:

TABLE 27.—*Cities which expend on their schools more than double that of Memphis in 1917.*

	Per capita.		Per capita.		Per capita.
Memphis.....	\$3.68	Grand Rapids.....	\$7.42	Lincoln.....	\$8.33
Boston.....	7.73	Hartford.....	7.97	Newton.....	10.64
Los Angeles.....	10.56	Des Moines.....	9.00	East Orange.....	8.25
Newark.....	7.65	Yonkers.....	7.71	New Rochelle.....	7.70
Washington, D. C.....	7.69	Atlantic City.....	8.33	Cedar Rapids.....	8.87
Minneapolis.....	7.62	Siox City.....	7.31	Moulton Vernon.....	9.82
Oakland.....	7.42	San Diego.....	10.01	Preson.....	8.33
Worcester.....	7.38	Pasadena.....	10.05	Stockton.....	8.22
Brookline.....	8.96	Madison.....	7.94		

This apparent indifference of Memphis toward the financial needs of her schools, as compared with other cities, is even more strikingly shown in the fact that whereas Memphis expended an aggregate of \$14.18 on her municipal activities during 1917, including the schools, there were 117 cities which expended a less amount than this. That is to say, in 1917, whereas Memphis stood No. 118 from the bottom in the aggregate of city expenditures for all purposes, she stood No. 34 from the bottom in the proportion of that expenditure which was given to the schools.

#### AMOUNT EXPENDED PER PUPIL.

A method frequently employed of determining whether or not a city is expending enough money in the maintenance of its schools is that of comparing cities in respect to the amount each is expending per pupil in attendance. The statistical facts needed to make this comparison are to be found in the reports which are made annually to the United States Bureau of Education by the school officials of the cities of this country. From these reports for 1917-18, not yet published, 24 cities were selected, representative of different sections of the United States. The following table shows how Memphis stands in comparison. The cost is reckoned in two ways: (1) On the number of pupils in average daily attendance; and (2) on the net enrollment of pupils, i. e., the number of different individuals who enrolled in the system during the year.

TABLE 28.—Amount expended per pupil on school maintenance, in 24 cities, in 1917-18.

Cities.	Total amount expended on maintenance.	Amount based on average daily attendance.		Amount based on net enrollment.		Percentage of net enrollment in attendance.
		Average daily attendance.	Amount per pupil.	Pupils net enrollment.	Amount per pupil.	
Memphis.....	\$279,129	14,865	\$51.82	21,218	\$36.38	70.0
Birmingham.....	639,849	21,302	30.03	30,946	20.67	64.8
Syracuse.....	847,374	19,545	43.35	23,809	35.59	82.0
Los Angeles.....	5,002,381	65,672	76.17	90,689	55.16	72.4
Oakland.....	1,757,285	26,466	66.40	31,083	50.66	76.3
San Francisco.....	2,519,629	46,381	54.98	61,244	41.63	75.7
New Haven.....	1,081,576	24,856	43.51	29,611	36.52	83.9
Louisville.....	1,081,361	24,825	43.59	32,308	33.37	75.5
Boston.....	6,347,478	102,464	61.94	132,848	47.08	77.1
Worcester.....	1,228,969	22,745	54.02	27,638	41.07	82.3
Petroit.....	4,301,014	84,922	53.76	117,812	38.71	72.0
Minneapolis.....	3,299,284	48,445	68.92	58,433	55.77	82.9
Omaha.....	1,321,991	21,933	61.16	30,596	49.09	81.7
Albany.....	1,539,988	10,152	56.83	12,878	44.80	78.0
Rochester.....	1,679,747	28,755	58.41	39,813	45.59	78.4
Paterson.....	786,134	18,673	42.09	22,844	31.35	82.5
Columbus.....	1,513,798	26,547	57.02	31,693	48.68	85.3
Dayton.....	842,021	17,654	47.47	21,443	39.30	83.3
Portland, Oreg.....	2,051,333	29,331	69.93	40,237	50.98	72.9
Providence.....	1,493,948	29,539	50.58	38,067	38.24	77.5
Nashville.....	457,469	13,389	34.16	17,859	25.61	75.5
Richmond.....	874,449	20,230	43.22	26,243	33.32	77.0
Seattle.....	2,403,655	33,965	71.76	44,439	54.76	76.5
Spokane.....	913,872	15,149	62.30	19,906	47.41	76.1

This table shows that during 1917-1918 Memphis expended on her schools \$51.82 per pupil in average daily attendance for the entire year, or \$36.38 per pupil reckoned on the basis of net enrollment. These amounts give her the rank of No. 10, counting from the city expending the smallest sum in the one case, and No. 12 in the other case. That is to say, in the group of 24 cities there are 13 expending more than Memphis per pupil on the basis of average daily attendance and 11 cities expending more when the net enrollment is considered as the basis of calculation.

In comparing the Memphis expenditure with the average expenditure of the other cities of the list we find that on the basis of average daily attendance Memphis fell short of the average for the cities, which was \$54.38, by \$2.56 per pupil, while on the basis of net enrollment the difference is still greater, being \$5.65 per pupil, the average for the cities of the list being \$42.03 per pupil.

This difference in the rating of Memphis in comparison with the other cities of the list, when the two bases are considered, is due to the fact that there is a lower percentage of the net enrollment in attendance in Memphis than in the other cities, as a reference to the last column of the preceding table will show. With the exception of Birmingham, Memphis has the poorest record of any of the cities in respect to the percentage of net enrollment in average daily attendance.

## THE MEMPHIS TAX RATE.

Almost invariably when effort is made to secure increased maintenance for the schools of Memphis the general property tax of the city is pointed to as a sufficient answer, the implication, of course, being that the tax rate is already too high. It will be of interest to consider this question in the light of the facts:

Referring once more to the Census Bureau's figures, this time turning to Table 32, we find that the property owner of Memphis paid for all purposes during 1917 a tax of \$29.70 on every \$1,000 of assessed valuation. Of the remaining 218 cities listed by the Census Bureau, we find that the general tax for all purposes of 152 of them fell below that of Memphis, while that for 66 cities was greater. In this particular, then, Memphis seems to be somewhat above the average of the list in the tax rate levied. But this, it must be made clear, does not take into account the great variation which obtains among cities in respect to the proportion which the assessed values bear to the actual values, for in some cities the assessed value is no more than 25 per cent of the real value, while in other cities property is assessed at its full market value. For example, the assessment rolls of Memphis are made out on the basis of 60 per cent of the estimated actual values for city taxes and 50 per cent for State and county taxes. To compare rates among cities fairly, therefore, they must be corrected on the basis of actual property values. This the Census Bureau has done, showing that the Memphis rate, corrected in this manner, is \$17.08. Comparing this figure with the rates of the other cities, corrected in the same way, we find that the rank of Memphis changes. Instead of there being only 66 cities outranking her in tax rate, as is true when the rate based on assessed values is considered, she is now outranked by 127 cities, with only 91 cities of the entire list of 219 having a lower true general tax rate. That is, when rates are made comparable, it is seen that Memphis, instead of having a higher rate than the average city, is found to be considerably below the average.

And when the city tax rates alone, corrected as before, are compared, we find that Memphis with her corrected city rate of \$9.77 drops in her rating to No. 24 from the bottom of the list.

It is clear, then, that the true tax rate (State, county, and city) of Memphis, in comparison with other cities, is not high; it is low.

## THE PER CAPITA VALUE OF MEMPHIS PROPERTY.

Memphis is a rapidly growing city with rising property values. It will be of interest in this connection to compare Memphis with the other cities of the Census Bureau's list in respect to the per capita property value. Table 32, *Financial Statistics of Cities*

(1917), again gives the true value, estimated by the city officials themselves, of the property in 219 cities of 30,000 population or more which is subject to general property tax. This estimate is given in terms of per capita of population, so that a comparison on exactly the same basis among these cities is easily made.

The facts are that Memphis, with a per capita true value of \$1,288, as stated therein, exceeds that of all the cities of the list except 77.

It is clear, then, when viewed from every possible angle, that Memphis is much below the average of American cities in the amount she expends upon the education of her children and far above the average in her financial ability to maintain her schools. Furthermore, it is perfectly clear that Memphis is well able financially, in comparison with other cities, to pay enough to make her school system the equal of any system in this country. Moreover, there can be no doubt of her financial ability to carry into execution the school program which this survey staff has outlined, in the doing of which Memphis will not exceed the financial limits under which cities progressive in matters educational are working.

ATTITUDE OF THE TAXPAYERS OF MEMPHIS.

It is confidently believed that when these facts are fully understood by the taxpayers of Memphis each will feel as does the writer of the following letter, which appeared recently in an Oakland, Calif., paper:

A LETTER FROM A TAXPAYER.

[From Our Public Schools, Oakland, Calif.]

I am a taxpayer. At this time of year taxpayers feel the stress of tax payments, and many of them make critical remarks because of this stress—I among them. In this frame of mind it occurred to me that I would like to know where the tax money goes; so I proceeded to figure. My home is a comfortable one, perhaps a little better than the average. The real estate is assessed at \$850, the improvements at \$750, and my personal property at \$450. My total city taxes for the year are \$33.21, at a rate of \$1.84. My total county taxes are \$44.75, at a rate of \$2.21. My annual city taxes are apportioned approximately as follows:

Police department.....	\$4.21
Fire department.....	4.95
Street lighting.....	1.81
Health department.....	.90
Streets.....	4.54
Harbor.....	2.15
City Hall and Auditorium upkeep.....	.93
Public parks.....	1.50
Playgrounds.....	.82
Public Library.....	1.22
Bonds for City Hall, parks, waterfront, Auditorium, and city schools.....	2.13
City officials' salaries and expenses.....	2.07
Miscellaneous.....	6.08
<b>Total.....</b>	<b>\$33.21</b>

\*The expense for these bonds would be about three times that total, except that other revenues for the city are applied on bond redemption.  
 \*\*This includes woodyard, pound, garbage collection, pensions, insurance, charities, service bonds, etc.

This tabulation set me to thinking. It is worth more than \$5 a year for me to have a fire house located not far from my home. It is worth a good deal more than \$4.54 a year to have good streets, or \$1.50 a year to have our beautiful parks, and \$1.22 a year to have our public library and branches. I pay as much for my daily morning paper as I do for police and fire protection. My monthly bill for house lights is double my yearly bill for street lighting. I pay less than a dollar a year for the health department that has just carried Oakland through an epidemic much more successfully than is the case in other places.

My annual county tax bill, amounting to \$44.75, is apportioned, approximately, as follows:

Salaries of regular county officials.....	\$2.84
Expenses of county offices.....	3.36
Charities and corrections.....	6.19
Bridge bonds.....	1.51
Miscellaneous.....	3.28
County high schools.....	3.85
County elementary schools.....	5.47
Oakland high schools.....	3.17
Oakland elementary schools.....	6.08
Oakland kindergartens.....	1.22
School buildings.....	3.01
School building bonds.....	3.44
Total.....	44.75

\*This includes \$3.80 for permanent buildings for hospital.

I do not know whether all the offices which we now have are needed, or whether some matters could be done more economically, but we need the courts of justice and their officials. The title to my property is recorded and protected by county officials. For this and many other things I pay \$6.20 per year. There is a large item for charities and corrections, amounting to \$6.19 a year. For this amount the county is taking care of hundreds of unfortunates, for any one of whom a person more heartless than I would subscribe an amount as large as the total contributed to the county.

The schools are a big item—taken altogether, the largest item on the tax list. I pay \$9.20 a year for high schools in Adams County and Oakland, \$11.40 for elementary schools, \$1.20 for kindergartens, and \$6.40 for school buildings. Therefore my total taxes for schools are \$28.20. I understand, however, that good high-school education costs \$100 or more per pupil per year. Private schools charge more. I understand that elementary education costs \$50 per year per pupil.

I have a child in high school whom I desire to have educated and whom the community desires to have trained for American citizenship. THE COMMUNITY SPENDS MORE ON HIS EDUCATION THAN THE TOTAL OF MY COUNTY AND CITY TAXES. The cost of two children in elementary school is greater than my total annual taxes. Here, I am unable to locate any item on which I feel sure that I am expending too much. The big business men may pay more taxes than I, but I am willing to buy goods from them in order that they may pay their taxes, and I am more willing now to patronize men who help support our institutions. All I can ask is that we get full service out of every dollar.

AN OAKLAND TAXPAYER.

## 6. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

1. Amend the charter to provide for an unpaid board of education of seven members whose terms of office shall be six years, except that at the first election two members shall be elected for two years, two

for four years, and three for six years, and that, after the first election there shall be an election every two years for either two or three members, as the case may be.

2. Candidates for election to the board should be nominated by a committee made up of representative men and women chosen for the purpose from the various civic bodies in the community which are working in a nonpolitical way for the progress of the city.

3. Remove the charter limits on the salary of the superintendent and make it permissible for the board to elect him for any term of years not exceeding five.

4. Make the superintendent the executive head of the school system in reality and hold him responsible for results. The board should refrain from executing details, concerning itself only with defining general policy.

5. Raise the qualifications required of teachers in the elementary schools to a two-year course at a State normal and graduation from a four-year high school, or the equivalent to these. Require college graduation or its equivalent of all high-school teachers.

6. Adopt a plan for eliminating the inefficient and the inadequately prepared teacher.

7. Abolish the "aid-teacher" system.

8. Arrange with local Negro institutions to give two years of professional training to graduates of colored high schools who desire to teach in the Memphis schools.

9. Gradually build up an adequately trained supervisory staff and organize the high schools on a department basis.

10. Provide for a supervisor of colored schools.

11. Urge teachers and principals to improve their work, and give tangible recognition to those who do, and drop from the department those who do not.

12. Place the salary schedule of the department on such a basis that competent people will be attracted to and be held in the corps, and provide for promotions to those who are increasingly efficient.

13. When the requirements of the colored employees are put upon the same basis as that of white employees, pay them the same wages.

14. Abolish the plan of paying the janitors a lump sum for the care of buildings, and provide sufficient help direct. Readjust the wage scale for both white and colored janitors on the basis of some such plan as the Boston plan, and relieve them of the responsibility for the discipline and control of children.

15. Provide a series of lectures and discussions for the janitors of the department which will serve to increase the efficiency of their work.

16. Abolish the system of promotions which is based on formal examinations and introduce the plan by which the class itself determines its own standards of promotion by reason of the quality of the work it does.

17. Based on 1917-18 figures, the proportion of the total expenditure of Memphis which went to the schools will have to be increased nearly 20 per cent to reach the average proportionate school expenditures of the cities of this country, and of 219 cities only 20 ranked lower than Memphis in this particular. Of the 219 cities, 185 expended more on their schools per capita of population than did Memphis, 25 of them expending more than double the amount. Of 24 cities considered for 1917-18 relative to expenditures per pupil in average daily attendance, Memphis ranked No. 10 from the bottom, falling short of the average amount expended by \$2.56 per pupil. Reckoned on net enrollment, Memphis ranked No. 12 in the list, falling short of the average in this particular by \$5.65 per pupil. In respect to the general tax rate of 1917-18, of 219 cities Memphis had a lower corrected rate than 127 of the cities. When the city tax rates alone are compared, it is found that 195 cities had a higher corrected rate than Memphis. Again, Memphis, with a per capita true property value of \$1,288, exceeded that of all the cities of the list except 77. It is clear, therefore, that Memphis is below the average American city in the amount expended upon her schools, and that she is financially able to carry into execution the program which this survey staff recommends.

It should also be remembered that no American city supports its schools as well as it could or should. Memphis should ask only, "What amount of money is necessary to make her schools fully efficient?"

## CHAPTER III. THE BUILDING PROBLEM.

CONTENTS.—I: The Problem—A farsighted building program needed; the school population; where congestion is greatest; one method of relief; a second method of relief; the work-study-play plan; the principle of the multiple use of school facilities; a building program based on the work-study-play plan; repairs needed; summary. II: General recommendations—The selection of sites; lighting and window space; cloak-rooms; blackboards; furnace rooms; heating and ventilation; drinking fountains; toilets; janitor service; suggestions for individual buildings.

### I. THE PROBLEM.

#### A FARSIGHTED BUILDING PROGRAM NEEDED IN MEMPHIS.

The city of Memphis has been unusually farsighted in planning for certain phases of its material development, such as, for example, the inauguration after the epidemic of 1878-79 of the pure water supply system, by Col. Waring; the sewerage system; and the recent development of the Farm Bureau and the Alluvial Land Association, both of which organizations are working with a view not only to the present prosperity of Memphis, but for its future development as the great distributing center of the central South.

Everything that has to do with the business life of the city is planned on the assumption that Memphis is to be a metropolis. Even the office buildings are put up on a scale which anticipates that Memphis will become an increasingly important trade center. But the schools are planned as though it were assumed that Memphis is to be a small town or village.

What Memphis needs primarily, in order to solve her school building problem, is a realization of the fact that providing for the present and future growth of school population is an engineering problem that demands the same deliberation and farsighted planning which she has so well displayed in other phases of the city's life. What the board of education and people of Memphis need to ask themselves is not whether one group of people want a building more in one section of the city than another group in another section, but rather, What is the present school population of Memphis? How much has it increased in the last 8 or 10 years? Where is the congestion greatest? In what direction is the tide of population moving? What kind of buildings should be put up and in what parts of the city in order to provide for growth as well as for present enrollment? How much playground space is needed? What kind of activities should be provided in the school buildings in order that the children of Memphis shall grow to be healthy, intelligent, self-reliant, and worthy to carry on the tradi-

tions of the city? Considering the funds available for building purposes in the present and in the immediate future, what items in a comprehensive building program should be taken up first, and what items can be left for future building appropriations?

Believing that the board of education and the people of Memphis wish to approach their school-building problem in a farsighted manner which will solve their problem for a number of years to come, the survey staff has undertaken to answer the above questions and to outline a building program which will meet the most pressing needs of the present, and also provide for the future growth of the school population extending over a period of years.

#### THE SCHOOL POPULATION OF MEMPHIS.

It is difficult to ascertain the exact number of children of school age in Memphis. The school census has not been taken during the past four years. The department of education does not give the number of children of school age. It gives the number of children enrolled, and records the figures under three different headings. First, there is the *gross enrollment*, which includes all children whose names have been entered on the roll of all schools during the year. This means that the same child's name may appear in two or three schools. Second, there is the *net enrollment*, which includes all the children entering any school during the year but excludes transfers. Third, there is what is called the *number belonging*, which means all those who have not been absent more than a certain number of days in succession.

If the purpose of the public school system is to give an education to all children in a given neighborhood, then obviously the "net enrollment" of any school rather than the "number belonging" more nearly represents the number of children which that school should reach. The "number belonging" may be much smaller than the "net enrollment" because it does not take into account the number of children who attended for a time and then dropped out. In fact, a discrepancy between the "net enrollment" and the "number belonging" may be significant as showing that the school is not reaching and holding the total school population of its district.

The nearest approximation to a correct estimate of the children of school age in the city is obtained by applying the ratio of children of school age to the total population, as given by the 1910 United States Census, to the estimated population for 1917, as given in the report called the Financial Statistics of Cities. According to the Census of 1910, the total population of Memphis in 1910 was 131,165. The total number of children 6 to 14 years of age was 17,444, or 13.3 per cent of the total population. According to the Financial Sta-

<sup>1</sup>U. S. Census, 1910, Statistics of Tennessee, p. 012.

tistics of Cities<sup>1</sup> of the United State Census, the estimated population of Memphis in 1917 was 148,995. If the proportion of children (6 to 14 years of age) to the total population was the same in 1917 as in 1910, then the total number of children within this age group in 1917 was 19,816.

The net enrollment in all day elementary schools in 1918-19 was 19,460 (see Table 29). This is approximately the number of children of 6 to 14 years of age which the estimate of the Financial Statistics of Cities would lead us to expect.

Inasmuch as a building program must make provision for housing all children of school age, it is obvious that the net enrollment is a safer figure to use as the basis for such a program than the "number belonging" or the "average daily attendance."

The table which follows gives the significant facts regarding the growth of the school population.

TABLE 29.—Original capacity of 31 day elementary school buildings—Net enrollment for 1911-12 and 1918-19—Per cent increase in enrollment, 1911-1919.—Number of pupils in excess of seating capacity—Additional capacity needed.

Names of schools.	Original capacity on basis of 45 pupils per class.	Net enrollment in—		Excess of pupils over seating capacity of school.	Number of regular classrooms now available.	Total classrooms required for present enrollment.	Excess of classrooms required over those available.	Per cent increase in enrollment, 1911-1919.
		1911-12	1918-19					
<b>WHITE SCHOOLS.</b>								
The 8 most congested white schools:								
A. B. Hill.....	540	787	993	453	12	23	11	33.2
Bruce.....	585	722	922	337	13	21	8	27.7
Cummings.....	300	574	677	317	8	15	7	18.0
Idlowild.....	360	520	741	381	8	17	9	42.5
Lauderdale.....	540	822	921	381	12	21	9	12.0
Madison Heights.....	360	320	447	87	8	10	2	39.7
Mauzy.....	585	525	671	86	13	15	2	27.6
Peabody.....	300	392	675	315	8	15	7	72.4
Total.....	3,690	6,062	6,047	2,357	82	137	55	30.0
Other day elementary white schools: <sup>2</sup>								
Gordon.....	360	423	474	114	8	11	3	12.1
Guthrie.....	675	408	624	41	15	13	1	56.2
Leath.....	765	782	782	33	17	17	0	6.0
Lenox.....	450	311	387	63	10	9	1	24.4
Merrill.....	630	546	688	88	14	16	2	25.5
Pope.....	540	720	738	198	12	15	3	2.0
Riverside.....	720	781	857	137	16	19	3	18.9
Roxelle.....	675	142	573	102	15	13	2	303.5
Smith.....	540	697	489	45	12	11	1	30.6
Snowden.....	380	283	430	70	8	10	2	52.0
St. Paul.....	270	435	419	99	6	20	4	44.0
Open Air.....	45	.....	24	21	1	1	0	.....
Total.....	6,030	5,308	6,461	421	134	146	12	17.1
Total day elementary white schools.....	9,720	10,170	12,468	2,778	216	283	67	22.4

<sup>1</sup> Financial Statistics of Cities, 1917, Bureau of the Census, p. 16.

<sup>2</sup> Church Home and Leath Orphanage are excluded because the board of education does not supply rooms for these schools; and Jefferson Street School is excluded because it is a special school.

<sup>3</sup> Decrease.

<sup>4</sup> Enrollment of 1914-15, the year the school was opened.

<sup>5</sup> Surplus classroom capacity.

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TABLE 29.—Original capacity\* of 31 day elementary school buildings—Net enrollment for 1911-12 and 1918-19—Per cent increase in enrollment, 1911-1919—Number of pupils in excess of seating capacity—Additional capacity needed—Continued.

Names of schools.	Original capacity on basis of 45 pupils per class.	Net enrollment in—		Excess of pupils over seating capacity of school.	Number of regular classrooms now available.	Total classrooms required for present enrollment.	Excess of classrooms required over those available.	Per cent increase in enrollment, 1911-1919.
		1911-12	1918-19					
<b>COLORED SCHOOLS.</b>								
<b>The 5 most congested colored schools:</b>								
Carnes.....	540	767	734	194	12	17	5	14.3
Charles.....	90	118	87	3	2	2		26.3
Kortrecht High School <sup>2</sup> .....	540	265	408	4	12	9	3	54.0
Le Rose.....	380	1,054	1,190	830	8	27	19	12.9
Virginia Avenue.....	495	684	967	472	11	22	11	41.3
Total.....	2,025	2,888	3,386	1,361	45	77	32	17.2
<b>Other day elementary colored schools:</b>								
Caldwell.....	180	146	258	78	4	6	2	76.7
Grant.....	675	729	870	195	15	20	5	19.3
Greenwood.....	360	457	546	186	8	12	4	25.0
Klondike.....	360	450	384	24	8	9	1	14.7
Kortrecht Grammar Porter.....	630	861	814	184	14	18	4	15.6
Porter.....	495	739	704	209	11	16	5	14.7
Total.....	2,700	3,362	3,576	876	60	81	21	6.3
Total day elementary colored schools.....	4,725	6,250	6,962	2,237	105	158	53	11.3
Grand total all day elementary schools.....	14,445	16,420	19,460	5,015	321	441	120	18.6

<sup>1</sup> Decrease.

<sup>2</sup> See note on p. 113.

<sup>3</sup> Kortrecht High School is included because part of its enrollment is made up of seventh and eighth grade pupils.

<sup>4</sup> Surplus classroom capacity.

<sup>5</sup> Enrollment for 1913-14, the year the school was opened.

### SCHOOL CONGESTION GREATEST IN THIRTEEN ELEMENTARY BUILDINGS.

As usually happens, however, this school population is not evenly distributed throughout the city, but has congregated in certain sections which are growing more rapidly than other sections. For example, there are 31 day elementary schools in the city, but approximately one-half of the total elementary school population is found in 13 schools, white and colored, situated in the southern and southeastern sections of the city. Furthermore, these 13 schools, as might be expected, are also the most crowded schools in the city (see Table 29); that is, with the year just closed (1918-19), the net enrollment in the 31 day elementary schools (white and colored) was 19,460, whereas there was a normal seating capacity for but 14,445. This means that there were 5,015 children in excess of the normal seating capacity of these schools. But the significant facts, from the standpoint of a building program, are that 9,433 of the

total 19,460 elementary school pupils were in the 13 schools in the southern and southeastern sections; and, moreover, of the 5,015 children in excess of seating capacity in all elementary schools, 3,718 were in these 13 schools, 2,357 in the 8 white schools and 1,361 in the 5 colored schools.

In other words, approximately 50 per cent of the total enrollment in the 31 elementary schools is found in these 13 schools, and 74.1 per cent of all the children in excess of seating capacity is also found in these schools. These 13 schools are: *White*—A. B. Hill, Cummings, Lauderdale, Bruce, Idlewild, Madison Heights, Peabody, and Maury; *colored*—Carnes, Charles, Kortrecht High School, La Rose, and Virginia Avenue.<sup>1</sup> Again, the extent to which congestion is concentrated in these 13 schools is shown by the fact that whereas only 12 additional classrooms are needed in the 12 least congested white schools, 55 additional classrooms are needed in the 8 most congested white schools; and whereas 21 additional classrooms are needed in 6 colored schools, 32 are needed in the 5 most congested colored schools.<sup>2</sup> (See Table 29.)

There are two chief methods by which this school congestion can be relieved, both of which are submitted for the consideration of the board of education, with a summary of the buildings, sites, and equipment required, and the total cost of such items under each method.

#### ONE METHOD OF RELIEVING SCHOOL CONGESTION.

The first method would attempt to solve the situation by the usual procedure of adding classrooms or new buildings without changing the traditional school organization. All children would be expected to be in school seats at the same time, and if provision were made for special activities, such as shops or cooking rooms, the classrooms would remain vacant when such facilities were in use. If such special facilities were provided, therefore, they would have to be in

<sup>1</sup> Estimates of the number of classrooms needed are based on the assumption that no class should have more than 45 pupils.

<sup>2</sup> Although the Charles and Carnes Schools at present have no classes in excess of classrooms, yet they are included in this group because the general sanitary conditions are such that the classrooms should not be used unless relief is afforded. The Charles School is not fit for occupancy; and a morgue directly back of Carnes makes the school unfit for children unless the morgue is removed or a new site chosen. Kortrecht High School has been included because it is a combination of elementary and high school, and although there are excess classrooms, the building is so situated and of such a character that the children should be transferred to a new building at the earliest possible moment. In other words, conditions in these buildings are so deplorable that the classrooms should not be considered as "available," and additional accommodations should be provided for them in any adequate building program.

addition to a classroom for every class. Let us consider the cost of meeting the school congestion problem of Memphis by this method.

In order to accommodate the children in excess of seating capacity in the 8 white and 5 colored schools, 87 additional classrooms are needed (55 for the white schools, and 32 for the colored schools). (See Table 29.)

Without knowing the local conditions in Memphis, it is impossible to give the exact cost of these classrooms, but, inasmuch as the Rozelle School cost \$150,000 (which means \$10,000 per classroom), and inasmuch as the cost of building has gone up since its erection about 60 per cent. we should estimate the classroom cost at about \$16,000. On this basis alone, an immediate expenditure of \$1,392,000 would be necessary in order to furnish the 87 additional classrooms needed to relieve the most pressing congestion. This amount, however, would not furnish any of the modern educational facilities such as shops, cooking rooms, and laboratories.

Neither, it is clear, would this amount provide for future growth. Enrollment in the 8 congested white schools alone has increased 30 per cent during the past 8 years (see Table 29), while in the 5 colored schools considered there has been in the same period a growth of 17.2 per cent. If these rates continue during the next 8 years, obviously an increased population aggregating 1,814 white and 447 colored children, or a total approximating 2,261, must be housed in these 13 schools alone. On the basis of 45 children to a classroom, 51 classrooms costing approximately \$816,000 would be required to care for this increase. Therefore, to the original figure of \$1,392,000 this item of \$816,000 must be added, making a total of \$2,208,000 which would be required.

But providing accommodations for the school population is not merely a mathematical matter of adding classrooms; it is a question of where and how they can be added. Some of the school buildings in Memphis are so constructed that they can not be readily added to; others have not sufficient ground to admit of additions; others are in parts of the city where it would not pay to spend any large sums of money on them. For example, Cummings has not enough ground for additions, and the building is old and badly constructed. These facts are true also of Madison Heights. It is a question also whether it would pay to add to a building like the Idlewild. Again, the population is increasing so rapidly in the neighborhood of Peabody, and that school has such a small seating capacity that it would seem to be a shortsighted policy to try to meet that situation by merely putting up an addition. It is also a question whether it would pay to put up additions at Lauderdale, as there is apparently a general

feeling that this district is likely to become a colored district, in which event the school would probably be turned over to colored children.

That is to say, an accurate estimate of the amount needed can not be gotten by considering merely the aggregate number of classrooms which will be required; it can be secured only by analyzing the situation at each school. This detailed analysis follows:

TABLE 30.—Estimated cost of meeting present school congestion and providing for future growth under the present plan of organization.<sup>1</sup>

## WHITE SCHOOLS.

*Cummings and Lauderdale:*<sup>2</sup>

Present enrollment.....	1,508
Growth for 8 years at 15 per cent.....	240
<b>Total enrollment to provide for.....</b>	<b>1,838</b>
Total classrooms needed.....	41
Cost of new building of 41 classrooms at \$16,000.....	\$656,000
Site.....	20,000

*Peabody:*

Present enrollment.....	675
Growth for 8 years, at 72.2 per cent.....	487
<b>Total enrollment to provide for.....</b>	<b>1,162</b>
Total classrooms needed.....	26
Present number of regular classrooms.....	8
Additional classrooms needed.....	18

*First alternative.*

Erection of new building of 26 classrooms.....	416,000
Site.....	20,000

*Second alternative.*

Annex of 18 classrooms on present site.....	288,000
Additional land.....	20,000

*Idlewild and Madison Heights:*

Present enrollment.....	1,188
Growth for 8 years at 41 per cent.....	487
<b>Total enrollment to provide for.....</b>	<b>1,675</b>
Total classrooms needed.....	38
Present number regular classrooms—	
Idlewild.....	8
Madison Heights.....	8
<b>Total.....</b>	<b>16</b>

*First alternative.*

(Combine Idlewild and Madison Heights in new building.)

Erection of new building for both schools of 38 classrooms.....	608,000
Site.....	20,000

<sup>1</sup> Cost estimated on the basis of \$16,000 per classroom unit.

<sup>2</sup> Both buildings should be abandoned and the two schools combined in a single new building to be erected to the south of the present sites.

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Second alternative.

(Send half of Madison Heights to Idlewild and half to Maury.)

*Madison Heights:*

Present enrollment.....	447
Growth for 8 years at 30.7 per cent.....	177
Total enrollment to provide for.....	624

*Idlewild (take half of Madison Heights):*

Present enrollment.....	741
Growth for 8 years at 42.5 per cent.....	314

Total enrollment to provide for.....	1,055
Total classrooms needed.....	24
Present number regular classrooms.....	8
Number classrooms needed for Idlewild.....	16
Plus half of Madison Heights.....	7

Total needed..... 23

Cost of annex of 23 classrooms for Idlewild.....	\$368,000
Additional land.....	20,000

*Maury (take half from Madison Heights):*

Present enrollment.....	671
Growth for 8 years at 27.6 per cent.....	185

Total enrollment to provide for.....	856
Total classrooms needed.....	19
Present number regular classrooms.....	13
Number classrooms needed for Maury.....	6
Plus half of Madison Heights.....	7

Total..... 13

Cost of annex of 13 classrooms for Maury.....	208,000
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*Bruce.*

Present enrollment.....	922
Growth for 8 years at 27.7 per cent.....	255

Total enrollment to provide for.....	1,177
Total classrooms needed.....	26
Present number regular classrooms.....	13
Cost of annex of 13 classrooms.....	208,000

*A. B. Hill.*

Present enrollment.....	993
Growth for 8 years at 26.2 per cent.....	260

Total enrollment to provide for.....	1,253
Total classrooms needed.....	28
Present number regular classrooms.....	12
Number additional regular classrooms needed.....	16

Cost of annex of 16 classrooms.....	256,000
Additional land.....	20,000

COLORED SCHOOLS.

*Carnes:*

Present enrollment.....	734
Growth for 8 years at 4.3 per cent decrease <sup>1</sup> .....	
<hr/>	
Total enrollment to provide for.....	734
Total classrooms needed.....	17
Present number regular classrooms.....	12
Total needed.....	5.
Cost of annex of 5 rooms.....	\$80,000
Additional land.....	6,000

*Charles:*

Present enrollment.....	87
Total classrooms needed.....	2
Cost of 2 portables, modern type, at \$1,000 and equipment (\$1,000).....	8,000

*Kortrecht High School:*

Present enrollment.....	408
Growth for 8 years at 54 per cent.....	220
<hr/>	
Total enrollment to provide for.....	628
Total classrooms needed.....	14
Cost of new building of 14 rooms.....	224,000
Site.....	20,000

*La Rose:*

Present enrollment.....	1,100
Growth for 8 years at 12.0 per cent.....	154
<hr/>	
Total enrollment to provide for.....	1,344
Total classrooms needed.....	30
Present number regular classrooms.....	8

*First alternative.*

Cost of new building of 30 classrooms.....	480,000
Additional land.....	20,000

*Second alternative.*

Cost of annex of 22 classrooms.....	352,000
Additional land.....	20,000

*Virginia Avenue:*

Present enrollment.....	967
Growth for 8 years at 41.3 per cent.....	390
<hr/>	
Total enrollment to provide for.....	1,308
Total classrooms needed.....	31
Cost of new building of 31 classrooms.....	496,000
Site.....	20,000

<sup>1</sup> The decrease in the school is not considered, as it may be due to bad conditions surrounding the school.

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TABLE 31.—Summary of estimated cost of meeting present school congestion and providing for future growth under the present plan of organization.

WHITE SCHOOLS.			
First alternative.		Second alternative.	
<i>Cummings and Lauderdale:</i>			
New building	\$656,000	New building	\$656,000
Site	20,000	Site	20,000
<i>Peabody:</i>			
New building	416,000	Annex	228,000
Site	20,000	Additional land	20,000
<i>Idlewild and Madison Heights:</i>			
New building	608,000	Annex, Idlewild	368,000
Site	20,000	Additional land	20,000
		Annex, Maury	208,000
<i>Bruce:</i>			
Annex	208,000	Annex	208,000
<i>A. B. Hill:</i>			
Annex	256,000	Annex	256,000
Additional land	20,000	Additional land	20,000
<b>Total</b>	<b>2,224,000</b>	<b>Total</b>	<b>2,004,000</b>
COLORED SCHOOLS.			
<i>Carnes:</i>			
Annex	\$80,000	Annex	\$80,000
Additional land	6,000	Additional land	6,000
<i>Charles:</i>			
Movables	3,000	Movables	3,000
<i>Kortrecht High School:</i>			
New building	224,000	New building	224,000
Site	20,000	Site	20,000
<i>La Rose:</i>			
New building	480,000	Annex	352,000
Additional land	20,000	Additional land	20,000
<i>Virginia Avenue:</i>			
New building	496,000	New building	496,000
Site	20,000	Site	20,000
<b>Total</b>	<b>1,349,000</b>	<b>Total</b>	<b>1,221,000</b>
<b>Grand total</b>	<b>3,593,000</b>	<b>Grand total</b>	<b>3,225,000</b>

DIFFICULTY OF RELIEVING CONGESTION.

At the present time the board of education has only \$500,000 available for building purposes, although a request for an additional \$2,000,000 is contemplated. Obviously, under the traditional plan of school organization, this amount falls a million dollars short of the amount needed to relieve the present congestion and to provide seat-

ing capacity for the estimated growth of these 13 schools during the next eight years. As for the expenditure of the \$500,000, it is important that at least \$50,000 be set aside for repairs to present buildings.

Let us consider what could be done with this \$500,000 in relieving the present congestion only.

First, it would be possible to put up an annex of 7 rooms at Cummings (\$112,000 and \$20,000 for land) and an annex of 9 rooms at Lauderdale (\$144,000 and \$20,000 for land). This would be a shortsighted policy, however, and a waste of money, since Lauderdale may be abandoned in the future as a school for white children, and Cummings is an old building, so situated that it would not pay to add to it.

Second, annexes could be put up at A. B. Hill (11 rooms, \$176,000 and \$20,000 land), and at Bruce (8 rooms, \$128,000). But the growth in these schools is such that, in order to take care of future enrollment, twice these amounts is needed. Therefore, the board of education would have to provide additional annexes for these two schools by the end of eight years, or else have as bad a congestion problem on their hands as obtains now.

Third, it would be possible to put up annexes at Idlewild (9 rooms, \$144,000 and land \$20,000), and Peabody (7 rooms, \$112,000 and land \$20,000) and a new building for Madison Heights (10 rooms, \$160,000 and site \$20,000). This would be an extremely shortsighted policy, however, since Idlewild, Madison Heights, and Maury should be considered together in order to relieve congestion adequately; and, also, by the time the new building for Madison Heights could be erected, the enrollment would be, at the present rate of growth, greater than the capacity. Moreover, the addition at Peabody would take care merely of the present congestion, whereas the increased enrollment in that school of 72.2 per cent in the past eight years and the trend of population in that direction show how inadequate such an addition would be.

Clearly, then, if the present form of school organization be adhered to and the attempt be made to meet the building problem by erecting new buildings and putting up annexes to the present buildings, in order that classrooms may be provided for every class, a sum approximating three and one-half million dollars (\$3,573,000) will be required. It is also clear that with no more than \$500,000 available within two years, \$50,000 of which, at least, must be devoted to repairs, the board is confronted with a well-nigh hopeless task.

Moreover, it is to be borne in mind that this large expenditure of three and one-half million dollars would not provide for any junior high schools, or a new vocational school or additions to the present Vocational School building, nor would it provide such modern educa-

tional facilities as science rooms, shops, drawing and music studios, nature study rooms, and swimming pools, which are now generally recognized as necessary parts of modern elementary public schools. Such facilities are particularly important in a growing city like Memphis. As we have pointed out in the first chapter, it is evident that if the city is to grow and prosper both commercially and in civic welfare, it is necessary that the children have a good foundation of physical health; that they have a practical knowledge of modern science, which is the very root of the agricultural and industrial life on which Memphis is being built up; that they have the knack with tools and the mechanical ability which the earlier generation had, and which is the rightful heritage of every normal boy and girl; and that they be given the opportunity to develop their power of expression in music, dramatics, and social organization, and to cultivate a taste for wholesome recreation.

For Memphis to plan a building program on the basis of providing merely classrooms for her school population, and to ignore her obligation to furnish such modern educational facilities as shops, laboratories, and nature study rooms, would be to fail in her duty to the rising generation, and to the best interests of the city. On the other hand, to provide such facilities in addition to the three and one-half millions dollars necessary to meet congestion would represent an expenditure difficult for Memphis to meet under present conditions.

Memphis is not peculiar in respect to her school congestion situation. Cities all over the country, even before the war, were having the greatest difficulty in meeting the increase in school enrollment. The rapid growth of population and the crowded conditions make the congestion and financial problems extremely difficult of solution on the traditional plan of a reserved seat for every child, as the Memphis situation so well illustrates. One peculiarly trying feature of the situation is that often there is bad congestion in one part of the city while there are surplus classrooms in another section. For example, in Memphis there is bad congestion in eight white schools, and yet there are surplus classrooms and a decreasing enrollment in six other white schools in other parts of the city. To keep pace with growth, therefore, merely on the basis of adding classrooms where they are needed at a given time, presents difficulties both administrative and financial. But when to this problem is added the obligation to provide the other necessary facilities such as shops and laboratories, auditoriums and playgrounds, the problem assumes formidable proportions.

Indeed, were this plan the only alternative the situation which the board is now facing would be a most discouraging one. Fortunately, however, there is another alternative which suggests the way out.

**A SECOND METHOD OF MEETING THE SCHOOL CONGESTION PROBLEM.**

A second possible method of solving the school building problem of Memphis is what is commonly known as the work-study-play plan now in operation in some 30 or 40 cities in this country. The chief advantages of this plan for Memphis are (1) that it offers suggestions for meeting the congestion problem within the financial ability of the city and (2) it also makes provision for such educational facilities as auditoriums, gymnasiums, shops, laboratories, drawing and music studios, nature study rooms, and swimming pools, which are now considered a necessary part of a modern school system.

This plan developed in an attempt to solve the peculiar school problems created by the modern city. It grew out of a recognition of the fact that the rapid growth of cities makes the educational problem far more difficult than formerly; in fact, has created a new school problem.

The education of all children has, of course, always consisted of work and study and play, but formerly the farm and small shop supplied the opportunity for work and play, and the school needed to make provision only for academic study. In those days, the environment of the average boy and girl furnished an education in wholesome activities that developed intelligence, initiative, and industrious habits. But during the past 50 years has come the growth of the modern city, until now half the population of the country is concentrated in them. And the city with its overcrowding, its factories, its office buildings, apartment houses and tenements which go up on all available vacant lots, is depriving children of the opportunity for the healthy, wholesome work and play which are essential elements in their education. The city home or apartment, unlike the farm, with its many necessities of "learning by doing" can offer few educational opportunities in the way of healthful work which develops the ability to think by attacking problems to be solved. There is no planting and harvesting to be done; few, if any, animals are to be taken care of; and it is a rare city home that has a workshop or laboratory. Yet children, until recently, have received much of their education through the opportunity to handle tools, to take care of animals, and to experiment in making and using things. But the city not only fails to educate children in the right direction; it educates them in the wrong direction, for the street, with its dangers to the physical and moral life of children, too often becomes their only playground; and street play means education, not in health and strength and wholesome living, but precocious education in all the vicious side of a city's life.

For these reasons, it has come to be recognized that the city school must not only supply the opportunity for study in good classrooms under wholesome conditions, but it must also return to the children the opportunity for the healthful work and play which the home can no longer supply.

Memphis provides an excellent illustration of these new educational problems presented by city conditions, because Memphis is apparently in the transition stage from a comparatively small city to what appears likely to become one of the largest cities of the South. The present generation of its men and women grew up under the conditions of a town where there was plenty of play space, and sufficient opportunity for work in and about the home to keep them wholesomely occupied, and to develop the initiative and ingenuity and ability to think, which is now such an asset in the development of the city. These men remember when a large part of the eastern section was an unoccupied area, and when there was little difficulty in finding playground space for a game of ball. Yet a few years ago the question of playground space became such a serious problem that a survey commission was called in to point out how and where to save play space from the encroachments of a rapidly growing city.

Again, these men and women who had the advantages of growing up in a simpler environment are already deploring the fact that "children in these days do not seem to know how to think"; "they don't know how to work"; "they have no initiative, no mechanical ability, nor resourcefulness." The implication is that there is some moral lack in the children. But, as a matter of fact, the city environment, whether at home or at school, does not tend to provide for children the practical, everyday problems to be solved which develop these qualities. Hours spent at a school desk do not develop either initiative or mechanical ability; and a love of good workmanship and resourcefulness in solving problems do not develop from reciting lessons merely, but from the opportunity to create things and to solve problems that have meaning. Another illustration of how the conditions of city life are failing to give the training which is considered necessary in the development of the city is the reply of a leading citizen, who, when asked what he thought the school should do, said, "Give the children a knowledge of science, so that they can develop more by-products in our industries"; and "The whole life of Memphis depends upon the agricultural development of the surrounding country. Whether a boy is to be a farmer or not, he should be intelligent about farming." And, finally, the answers received to a questionnaire sent out to leading citizens, asking them what they thought could be done to improve the schools, showed in many cases a grave concern over the fact that city life with its cheap amuse-

ments and excitements and lack of healthy normal recreation does not provide a wholesome environment for children.

Play, an opportunity to develop mechanical ability and initiative, a practical knowledge of science, a wholesome social life and recreation—these have always been part and parcel of an all-round education; and these are the things which Memphis, like many other cities, is not giving to her children.

The duplicate school plan represents an attempt to meet these new problems in education, and to make it practicable, both administratively and financially, for school administrators to provide not only classroom accommodations, but also such modern educational facilities as gymnasiums, auditoriums, shops, and laboratories where children may be kept wholesomely occupied in study and work and play.

#### HOW THE PLAN WORKS.

Briefly, the plan is this: A school is divided into two parts, each having the same number of classes, and each containing all the eight or nine grades. The first part, which we will call the "A School," comes to school in the morning, say, at 8.30, and goes to classrooms for academic work. While this school is in the classrooms, it obviously can not use any of the special facilities; therefore the other school—B School—goes to the special activities, one-third to the auditorium, one-third to the playground; and one-third is divided among such activities as the shops, laboratories, drawing and music studios. At the end of one or two periods, that is, when the first group of children has remained, according to the judgment of the school authorities, in school seats as long as is good for them at one time, the A School goes to the playground, auditorium, and other special facilities, while the B School goes to the classrooms.

#### EXAMPLE FROM A MEMPHIS SCHOOL.

This work-study-play method can best be explained, however, by applying it to one of Memphis's own schools, the A. B. Hill. This school had an original seating capacity of 540 pupils. It now has 993 children, or 11 classes in excess of seating capacity. There are 19 classrooms and one auditorium at present in the school. There are no other special facilities. The surplus classes are accommodated in two basement rooms and a portable building, all of which are really unfit to be used as classrooms. Needless to say, there are far more than 45 pupils to a class. To relieve only present congestion under the traditional plan, it would be necessary to put up 11 additional classrooms, which, at a cost of \$16,000 per classroom, would amount to \$176,000, and would accommodate only the present enrollment.

It would also be necessary to buy land for playground purposes, as the site is too small.

Under the work-study-play plan, this school would be made into a 24-class school. These 24 classes would be divided into two schools of 12 classes each. There are at present 12 classrooms in the school. These would continue to be used as classrooms. An annex would be put up containing two gymnasiums (3 units) on the ground floor, one for boys and one for girls; a shop (1 unit), a cooking room (1 unit), a science laboratory (1 unit), a drawing studio (1 unit), and a music studio (1 unit), making 8 units, which, at a cost of \$16,000 per unit, would come to \$128,000. In other words, the cost would be \$48,000 less than on the traditional plan; there would be provision for growth for at least one more class; and, in addition, there would be four types of special activities, none of which the school has at present, and which under the traditional plan would have to be provided by erecting additional classrooms.

But the important point about this reorganization is that all the children would have not only the same amount of time for reading, writing, arithmetic, geography, and history as formerly—210 minutes—but also 50 minutes of play every day, 50 minutes a day of auditorium, and 50 minutes a day of shopwork every day in the week for a third of the year; science every day for a third of the year, and drawing or music every day for a third of the year. At present the children get a 10-minute recess period for play, a few minutes for opening exercises in the auditorium, and little or no time for these special activities. Of course, each community would decide what special activities it wanted the children to have.

The following table gives a possible program for the "A School." It will be recalled that there are 12 classes in this A School, which are divided into three divisions of four classes each: Division 1, upper grades; Division 2, intermediate grades; Division 3, primary grades.

The "A School."

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8:30-9:30	Arithmetic—Divisions 1, 2, 3	.....	.....	.....
9:30-10:10	Language—Divisions 1, 2, 3	.....	.....	.....
10:10-11:00	.....	Division 1.....	Division 3.....	Division 2
11:00-12:00	.....	Entire "A School" at luncheon		
12:00-1:00	Reading—Divisions 1, 2, 3	.....	.....	.....
1:00-1:30	History and geography—Divisions 1, 2, 3	.....	.....	.....
1:30-2:30	.....	Division 1.....	Division 2.....	Division 1.
2:30-3:30	.....	Division 2.....	Division 3.....	Division 1.

## The "B School."

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8.30-9.20	.....	Division 2.....	Division 3.....	Division 1.
9.20-10.10	.....	Division 3.....	Division 2.....	Division 1.
10.10-11.00	Arithmetic—Divisions 1, 2, 3.	.....	.....	.....
11.00-12.00	Language—Divisions 1, 2, 3.	.....	.....	.....
12.00-1.00	.....	Entire "B School" at luncheon.		.....
1.00-1.50	.....	Division 1.....	Division 3.....	Division 2
1.50-2.40	Reading—Divisions 1, 2, 3.	.....	.....	.....
2.40-3.30	History and geography—Divisions 1, 2, 3.	.....	.....	.....

This program represents a change in the traditional method in several important points. In the first place, it breaks up the custom of having all children in classrooms at the same time, and letting the classrooms lie idle when the children go to the auditorium, shops, and playground. In other words, it applies to the public school the principle on which all other public service institutions are run—that is, the multiple use of all facilities all the time. For example, it is evident that our transportation system is made possible because of the fact that all people do not wish to ride at exactly the same time; concerts and theaters are made available to many people because one person can use another's seat when he does not want to use it; hotels can accommodate thousands of people because they are not run on the principle of reserving each room for the exclusive use of a single individual during the whole year. On the other hand, the public school system has been run on the principle of reserving a seat for each child during the whole year. All children have to be in school seats from 9 to 12 a. m. and from 1 to 3 p. m., all have to go home to lunch at the same time; and at 3 o'clock all are dismissed and turned out to play.

There would, after all, seem to be no good reason why the principle of other public service institutions, i. e., multiple use of facilities all the time, should not apply to the school, nor any reason why all children should be in classrooms at the same time, nor why the special facilities should be used only a fraction of the day, provided, of course, that the children receive during the day the required amount of academic work. In fact, it is difficult to see how the problem of providing enough classrooms, or playgrounds, or auditoriums for the mass of children is ever to be met if all children have to be in classrooms at the same time, and if all children have to play at once. Moreover, there seems to be no good reason from an educational standpoint why children should all have to do the same thing at the same time.

## PRINCIPLE OF MULTIPLE USE MAKES MODERN EDUCATIONAL FACILITIES FINANCIALLY PRACTICABLE.

Fortunately, however, if the principle of multiple use is applied to public school facilities, it is possible to provide not only adequate classroom accommodations but also auditoriums, gymnasiums, and shops for the mass of children. In fact, accommodations may be provided in all facilities, if they are in use constantly by alternating groups, at less cost than regular classrooms alone may be provided on the basis of a reserved seat for every child. For example, in a 48-class school, under the traditional plan 48 classrooms are needed in addition to all the other special facilities. Under the work-study-play plan, only 24 classrooms are needed. The classroom, however, is the most expensive unit in the school, therefore, since only half the usual number of classrooms is needed, i. e., 24 classrooms in a 48-class school, the cost of the remainder is released for all the other special facilities.

## FLEXIBILITY OF THE PROGRAM.

A program based upon the multiple use of facilities not only makes possible modern educational advantages for the children, but it also makes it possible to have a flexible program. A study of the different types of these schools in different parts of the country shows that it is possible for a community to adapt the program to its particular needs. For example, it is possible to arrange to have the school begin at 8.30, 8.45, or 9 a. m., or any other hour desired. Or, if the school begins at 8.30 and certain parents object to having their children leave for school so early, it is possible to put these children in the "B School," which begins the day with special activities; in this case the children can omit the play period from 8.30 to 9.20 and arrive at school at 9.20. Or again, many parents prefer to have their children take special music lessons after school. It often happens that home work or staying after school interferes with these lessons. Under the work-study-play plan, it is possible to put such children in the "A School" and let them omit the play period or the auditorium in the afternoon from 2.40 to 3.30 p. m. There is, of course, no reason why children should not be given credit for these out-of-school activities if so desired. Again, a child who is backward in a special subject, such as arithmetic, and is being held back in a grade because he can not master that subject, can double up in arithmetic for a number of weeks by omitting the auditorium period until he has made up the work and is ready to go on with his grade. As for the special activities, each community and each section of the city can have the special facilities which the school authorities and parents

desire. Possibly one of the most desirable features of the program is that the children are given an opportunity for experience in various lines of work and study from the third or fourth grade through the eighth or ninth, so that they have some idea by the time they reach the upper grades what particular type of activity they are most interested in.

#### THE SCHOOL TAKES OVER THE STREET TIME OF THE CHILD.

As has been pointed out, one of the most undesirable elements in the life of city children is the street life in which they have hitherto spent so large a part of their time. For example, the schools of Memphis were in session in 1917-18 about 172 days in the year. This means that even though all the children attended the entire time, they would still be out of school 193 days in the year. On the basis of the 365 days in the year, it will be seen that children are under the supervision of the school on an average of not more than two and a half hours a day. Investigation has shown that all other child welfare agencies do not occupy a child's time on an average of more than 10 minutes a day. It is safe to say that the city home can not keep a child wholesomely occupied for more than 6 hours a day. Adding 10 hours for sleep, there are still more than 5 hours to be accounted for, and, as is well known, these hours are spent by the children on the city streets. In other words, a city child spends practically twice as much time on the street being educated in the wrong direction as in school being educated in the right direction.

It is imperative, therefore, that the school take over not only the opportunities for work and play which the home no longer supplies, but also the time now wasted on the city street. The work-study-play plan does this by lengthening the school day an hour or more as each community may desire, and by offering to the children wholesome activity in shops and laboratories and on the playgrounds. It should be borne in mind, however, that this lengthening of the school day does not necessarily lengthen the number of teaching hours of any teacher. It is necessary that she be around the building six hours, but she need not teach more than five hours.

#### PROVIDES FOR THREE OR MORE JUNIOR HIGH SCHOOLS.

Finally, one of the advantages of the work-study-play plan is that it makes possible the junior high schools, which the people of Memphis so much desire. At present there is no question but that the city school system is failing to hold the children of the seventh and eighth grades. These children are drifting out of school at the very time in their lives when they most need its guid-

ance. With the enriched school life, which the junior high school would give these children, it would be possible to hold a far larger number than is now the case. But under the cost of the traditional plan there seems little prospect of the city having more than one junior high school within the next four or five years, and even then it could be put up only by leaving some elementary school in the midst of the present deplorable congestion. Under this plan, however, there is no reason why the city should not have three or four junior high schools by putting up new buildings which would accommodate nine grades. The upper three grades could then be grouped as a junior high school, and the pupils in these grades, as well as those in the lower grades, would have in these larger schools much richer facilities than if the two divisions were housed in separate buildings. Indeed, it is possible to have all 12 grades in the school, if the community desires it.

#### A BUILDING PROGRAM FOR MEMPHIS BASED ON THE WORK-STUDY-PLAY PLAN.

The board of education has asked the survey staff to suggest a building program based on the fact that \$500,000 is immediately available, with a possible \$2,000,000 two years hence. We have suggested how far this would go under the traditional school plan. Let us now consider what could be done with it under the work-study-play plan.

In the first place, as we pointed out at the beginning of this report, the school buildings in Memphis are inadequate for the type of city which Memphis is rapidly becoming. They are far too small even for the present enrollment, and are entirely inadequate for future growth. If Memphis has reached the point where it wishes to solve its school building problems in as farsighted and scientific a manner as it is using in developing Memphis as a trade center, it will deliberately plan not only to relieve the present congestion but to approach the whole problem in a way calculated to prevent a repetition of its present difficulties. Believing that such an approach would yield the best results for the education of the children and also be most economical for the city, we would recommend that three things be done.

##### 1. ERECT FIVE NEW BUILDINGS.

*A new building for Cummings and Lauderdale.*—As we have pointed out before, Cummings is of an obsolete type to which it would not pay to add, and Lauderdale is in a section which apparently may become a Negro district, in which case the school would probably become a Negro school. The net enrollment of the two

schools at present is 1,598 pupils. We would therefore recommend that a new building to accommodate 48 classes (2,160 pupils) be erected at some place to the south of these schools, since the population is growing in that direction. Such a building would cost approximately, \$512,000 and the lot approximately \$20,000.

The cost is arrived at in the following way: The cost of a classroom unit is estimated at \$16,000. A work-study-play school of 48 classes requires only 24 classrooms instead of 48, and also 8 special activity rooms, making a total of 32 units at \$16,000 each. The total cost, therefore, of a 48 class school under this plan is \$512,000, whereas, the cost of such a school under the traditional type of school organization would be \$768,000. Putting this fact another way, a building under the traditional plan which cost \$512,000 would accommodate 32 classes, whereas a building under the work-study-play type of organization costing the same amount would accommodate 48 classes. That is to say, the building capacity which can be obtained by a given expenditure is increased 50 per cent under this plan. Moreover, under the work-study-play plan such a building accommodates not only 48 classes but also provides 8 special activities, an auditorium, 2 gymnasiums, and 2 swimming pools, whereas under the traditional plan it is possible for the same amount to have only 32 classrooms, an auditorium, and 1 gymnasium.

A school of 48 classes of this type would not only accommodate the present register of Cummings and Lauderdale and the increase of possibly four classes (180 pupils) which would take place before the building could be erected, but it would also provide for growth in that section after the erection of the building and accommodate the upper grades of A. B. Hill as well, in case the school authorities wish to make the new school into an elementary school and junior high school combined.

*A new building in the neighborhood of Idlewild, Lenox, and the eastern section of Madison Heights.*—The enrollment in these three schools at present is 1,575. A new building of 48 class could be put up at a cost of approximately \$512,000. The land would require \$20,000 additional. Idlewild is an old building of the same obsolete type as Cummings, to which it would not pay to add. Lenox is too small for economic use by a city of the size of Memphis. Madison Heights should be abandoned as soon as possible, as it is an old building and with no available land near it. The children should be transferred to Maury and Idlewild.

*A new building for Peabody.*—This school at present has a register of only 675 pupils, but the population in that part of the city is increasing so rapidly that it would be wise to plan for a 48-class school in that general neighborhood. Considering the present register, however, it would be best to put up only half of this building first

and the other half as enrollment grows. Half of a building which can ultimately accommodate 48 classes would cost \$256,000. The land would cost about \$20,000.

*A new building for La Rose and Kortrecht High School (colored schools).*—The conditions in La Rose are nothing short of disgraceful. The original building accommodates only 8 classes, and at present there are 27 classes in the school. These surplus classes are taken care of in portable buildings of the most undesirable type, and the conditions are so bad that in some rooms there are 88 children and 50 seats, so that two children have to sit in one seat. Kortrecht High School is an old building near the railroad tracks which should be abandoned as soon as possible.

Under the work-study-play plan it is possible to house the eight grades of the elementary school and four grades of the high school in the same building. The two schools are separate, but such an arrangement means that the elementary school children would have the advantage of richer facilities than otherwise could be afforded them, and the high-school pupils would have the advantage of being a part of a large school community which can make demands upon them for the practical application of their work along such lines as chemistry, physics, shopwork, and mechanical drawing. Moreover, such a plan tends to keep children in school longer, so that they do not feel that they have graduated when they reach the eighth grade. In a modern city a school should be not an institution for the children, but a school community full of wholesome activities for children of different ages in which all can take part according to their ability, and thereby develop a spirit of social helpfulness as well as the power of individual expression. A school of 12 grades gives the variety of age and of activities necessary for such a community.

The cost of such a combination elementary and high school would be about \$512,000 and the lot approximately \$20,000. If, however, the school authorities and parents prefer a separate high school, it will be necessary to relieve conditions in both La Rose and Kortrecht High Schools by separate buildings. This would mean an additional expense of about \$154,000, which with the cost of land would come to an additional expense of about \$175,000. This provision for a separate high-school building has not been included in our estimate.

*A new building for Virginia Avenue.*—The Virginia Avenue building is situated between two railroad tracks, one within 20 feet of the rear of the building and the other across the street. There are 22 classes of children and 11 classrooms, but the building is not fit for occupancy. A new building should be built to the south and a

little to the east of this location. In order to provide for growth—this is the only colored school in the section—the building should accommodate a 48-class school. But as there are at present only 967 pupils, only half the building should be put up at first. The cost for this would be \$256,000. The lot would cost approximately \$20,000.

2. CERTAIN BUILDINGS SHOULD BE FIXED UP WITH A VIEW TO ABANDONING THEM IN THE NEAR FUTURE WHEN THE NEW BUILDINGS ARE COMPLETED.

The buildings to be included in this group are: White schools—Cummings, Lauderdale, Peabody, and Idlewild; colored schools—Charles, Carnes, and La Rose.

Inasmuch as these buildings should be abandoned when the new buildings are built, and inasmuch as the board of education has only \$500,000 to expend immediately, we would recommend that the congestion in these buildings be taken care of temporarily by erecting modern movable buildings, a particularly desirable type of temporary structure now in use in certain parts of the country. The portables in use in Memphis are of such a poor type and so disliked by teachers, pupils, and parents that they should be abandoned. The type of movable structure, however, to which we refer has no resemblance to these portables to which Memphis is accustomed. It is possible to secure in this new type of structure the following units: An auditorium 30 by 60 feet costing approximately \$1,500; and \$1,000 for furnishing and setting up; a gymnasium costing the same amount; a classroom, set up, \$1,000; and the special activity rooms also, \$1,000. These different units can be obtained separately or in combination, so as to make a complete addition. Furthermore, these units can be combined so as to make a school with corridors, offices, storerooms, and equipped with showers, toilets, and other accessories if desired. They are sanitary, can be well heated and ventilated, and are kept clean easily. The children in the schools under discussion would be far better off in these modern movable buildings than in their present congested basement rooms and undesirable portables. When the new permanent buildings for these schools are erected, these movable rooms can be transferred to other schools which are less congested but which need relief. Therefore, although buildings of this character are used for temporary purposes, they are a permanent asset to any school system, since it is possible through their use to take care of temporary congestion as the need arises.

The following are detailed recommendations for each of the above schools:

*Cummings.*—Cummings now has 15 classes and 8 regular classrooms. It has no auditorium, no gymnasium, and no special activities. Two old buildings that should be abandoned immediately are used to house the surplus classes.

This school should be made into a 16-class school. The 8 rooms under the plan which we are suggesting would continue to be used as classrooms. One of the rooms in the basement could be turned into a shop and the other into a cooking room. Inasmuch as the children would be in these rooms for only 50 minutes at a time, it would be far less objectionable to use them for special activities than for classrooms as is now the case. There should be four movable rooms—one for music or drawing, one for nature study, one for gymnasium, and one for auditorium. Under this arrangement the children could have a six-hour day and an opportunity for healthful work, play, and study, which would be far better for them than sitting four or five hours in classrooms under the present congested conditions. The following is the cost of such movable rooms for Cummings:

Equipment for shop in basement.....	\$1,000
Equipment for cooking room—basement.....	2,000
One movable for music.....	1,000
One movable for nature study.....	1,000
One movable for auditorium.....	2,500
One movable for gymnasium.....	2,500
Additional equipment.....	1,000
<b>Total.....</b>	<b>11,000</b>
Rent of land for playground.....	1,000

*Lauderdale.*—Lauderdale has 21 classes and only 12 regular classrooms, no auditorium, no gymnasium, no special facilities. The surplus classes are taken care of in 4 basement rooms and in 2 portable rooms. There are 9 more classes than rooms.

This school should be made into a 24-class school on the work-study-play plan. The 12 classrooms should be used as classrooms. The cost of movables for the special activities would be as follows:

Equipment for shop in basement.....	\$1,000
Equipment for cooking room, basement.....	2,000
One movable for auditorium.....	2,500
One movable for gymnasium.....	2,500
One movable for music.....	1,000
One movable for nature study.....	1,000
One movable for drawing.....	1,000
Additional equipment.....	1,000
<b>Total.....</b>	<b>12,000</b>
Land for playground (rental or purchase).....	5,000

*Peabody.*—Peabody has 15 classes and 8 classrooms, 7 classes in excess of its capacity. It has an auditorium but no gymnasium and no special facilities. The surplus classes are taken care of in basement rooms and portables.

This should be made into an 18-class school. The present 8 classrooms should be used as classrooms. The cost of movables would be as follows:

One movable for classroom.....	\$1,000
One movable for gymnasium.....	2,500
Equipment for shop in basement.....	1,000
Equipment for cooking room, basement.....	2,000
One movable for music.....	1,000
One movable for drawing.....	1,000
Additional equipment.....	1,000
Total.....	9,500
Land for playground (rental or purchase).....	5,000

*Idlewild.*—Idlewild has 17 classes and 8 classrooms, 9 classes in excess of capacity. It has no auditorium and no gymnasium and no special facilities.

This should be made into an 18-class school and the present 8 classrooms used for classrooms. The cost of movables would be as follows:

One movable for classroom.....	\$1,000
One movable for auditorium.....	2,500
One movable for gymnasium.....	2,500
Equipment for shop in basement.....	1,000
Equipment for cooking room, basement.....	2,000
One movable for music.....	1,000
One movable for drawing.....	1,000
Additional equipment.....	1,500
Total.....	12,500
Additional land (rental or purchase).....	5,000

*Charles (colored).*—This school has 87 pupils and 2 classrooms. There are no excess classes, but the classrooms are unfit for occupancy and two modern movables should be put up immediately until it is possible to ascertain whether there is likely to be an increase in population in this neighborhood.

Two movables for classrooms.....	\$2,000
Equipment.....	1,000
Total.....	3,000

*Carnes (colored).*—This school has 17 classes and 12 classrooms. It is situated directly in front of the city morgue. Either the school or the morgue should be moved.

Assuming that the morgue is moved, this school should be made into an 18-class school; 9 of the 12 rooms should be used as class-

rooms, and of the remaining 3 rooms one should be used as a drawing studio, one as a music room, and one could be used for a cooking room. The cost would be as follows:

Equipment for cooking room.....	\$2,000
One movable for auditorium.....	2,500
One movable for gymnasium.....	2,500
One movable for shop.....	2,000
Additional equipment.....	1,000
Total.....	10,000
Additional land.....	5,000

*La Rose (colored).*—La Rose has 27 classes and 8 regular classrooms. It has no auditorium, no gymnasium, and no special facilities. The surplus classes are accommodated in overcrowded old buildings.

This school should be made into a 30-class school. The 8 present regular rooms should be used as classrooms. The cost of movables would be as follows:

Seven classrooms, movable.....	\$7,000
Auditorium, movable.....	2,500
One movable for gymnasium.....	2,500
One movable for science.....	1,000
One movable for drawing.....	1,000
One movable for cooking.....	3,000
One movable for shop.....	2,000
One movable for music.....	1,000
One movable for library.....	1,000
Total.....	27,000

These different units should be arranged so as to make a school with corridor, offices, stores, showers, and toilets. The whole would come to about \$35,000.

8. A CAREFUL STUDY SHOULD BE MADE OF THE REMAINING SCHOOLS TO DETERMINE WHETHER IMPROVEMENTS SHOULD BE PERMANENT OR TEMPORARY AND WHETHER THE SCHOOLS SHOULD BE FOR FIVE OR SIX CLASSES OR EIGHT OR NINE.

The schools in this group are A. B. Hill, Bruce, Maury, and Madison Heights.

*A. B. Hill.*—There are two alternatives possible in dealing with the A. B. Hill situation, and only a careful study can determine which is more desirable. An annex of eight units could be put up at a cost of \$128,000, which would take care of congestion and provide modern educational facilities. On the other hand, the school authorities may consider it desirable to send the upper grades of A. B. Hill to the new building to be erected for Cummings and Lauderdale.

In that case, it would not be necessary to enlarge A. B. Hill. Considering the fact that it will probably be impossible to reach a decision in this matter until the new building for Cummings and Lauderdale is at least started, and until it becomes evident also whether the school population to the east and south of A. B. Hill is increasing, and therefore whether an addition to A. B. Hill would be justified, it would seem advisable at this time to erect movable buildings at this school pending a final decision. The cost would be as follows:

The school should be made into a 24-class school and the 12 regular rooms used for classrooms.

Equipment for shop, basement.....	\$1,000
Equipment for cooking, basement.....	2,000
One movable for gymnasium.....	2,500
One movable for music.....	1,000
One movable for drawing.....	1,000
One movable for science.....	1,000
Additional equipment.....	1,000
 Total.....	 9,500
Additional land (rental).....	5,000

*Bruce.*—It is a question whether an annex should be added to this building to take care of congestion, or whether the school population in this section is likely to increase sufficiently to justify a new school plant on the present site. In the latter case, it would be desirable to put up movables pending the erection of a new building. But since the present building is a good one, and since it will be impossible to determine for some time whether the erection of a new building would be justified, it is recommended that a permanent annex of 6 units be erected. The school now has an enrollment of 922 pupils. It has 13 classrooms. The school should be made into a 24-class school; 12 rooms should be used as classrooms, the remaining room to be used as a library; the two basement rooms should be used for a cooking room and a shop. The annex would contain 2 gymnasiums (8 units), a science laboratory, music room, and drawing studio. The annex should be so built that it can be added to as the school grows so that it could include an auditorium and other special activities such as the shops which could be transferred from the basement of the main building. Pending this growth and the enlargement of the annex, a movable auditorium should be erected temporarily, since it would probably be undesirable to add one to the present old building, as there is hardly sufficient room or light at the rear of the building to warrant it. Such an annex would cost \$98,000, and the auditorium \$2,500.

*Maury and Madison Heights.*—Maury has 15 classes and 13 classrooms. It could be reorganized on the work-study-play plan with

no additions except the auditorium, but this would leave Madison Heights with no relief and there is no land at Madison Heights for movables.

A second alternative would be to transfer Madison Heights to Maury, with the possible exception of two classes to be sent to Idlewild or Bruce. Maury could then be made into a 24-class school. The 12 classrooms could be used as classrooms; the extra room could be used as a drawing room; the two rooms in the basement could be used as a cooking room and a shop. An annex, or additions to the two wings of the building, could then be put up containing a nature-study room and music studio on the second floor, and two gymnasiums on the first floor. This addition of 4 units would cost \$64,000, and an auditorium at the rear of the building would cost approximately \$12,000, making a total of \$76,000.

There is a strong desire in Memphis for a new vocational school, although it is also recognized that this need should not be met until the congestion situation for the majority of children is taken care of. If, however, the board of education wishes to reorganize the Vocational School on the work-study-play plan, it would be possible to relieve the situation in that building and add four or five shops to the present school. This can be done as follows:

The Vocational School has 20 rooms, of which 15 are classrooms, 2 are shops, and 3 are laboratories. It also has a gymnasium, which is now used as an auditorium. The enrollment in 1918-19 was 770. Under the proposed plan, the school could be made into a 24-class school; 12 of the rooms could be used as classrooms, 2 could continue to be used as laboratories, 1 for chemistry and 1 for physics, 1 could be used as a mechanical drawing room, and the remaining 5 for the shops which are now desired—i. e., woodworking, and printing, which exist at present—and also automechanics, sheet metal and electrical work. An expenditure of \$20,444 would be sufficient for these shops, and certainly this would be as much as should be spent on the present building.

Under such a reorganization, all the children in the building would have the opportunity for a greater variety of work with better equipment than would be possible if no appropriations were forthcoming until a new building could be built.

#### REPAIRS.

A large number of buildings in Memphis are in such bad repair that one of the first items to be considered in the expenditure of the \$500,000 now available should be that of repairs. At least \$50,000 should be set aside for this purpose. Detailed recommendations in regard to repairs to the existing buildings, together with recommendations for guidance in the choice of school sites and erection of

buildings, in order to avoid some of the mistakes of the past, are given on page 142.

TABLE 82.—Summary of cost of building program for Memphis on the work-study-play plan.

1. Permanent investment for new buildings.	
Cummings and Lauderdale <sup>1</sup> :	
New building (48 classes).....	\$512,000
Land.....	20,000
Idlewild, Lenox, and Madison Heights <sup>1</sup> :	
New building (48 classes).....	512,000
Peabody:	
One-half of 48-unit building.....	256,000
Land.....	20,000
La Rose and Kortrecht High School:	
New building (48 classes).....	20,000
Virginia Avenue:	
One-half a 48-unit building.....	256,000
Land.....	20,000
Total.....	\$2,128,000
2. Some buildings to be fixed up temporarily until new buildings are built.	
<i>White schools.</i>	
Cummings:	
Movables.....	11,000
Land rental.....	1,000
Lauderdale:	
Movables.....	12,000
Land (rental or purchase).....	5,000
Peabody:	
Movables.....	9,500
Land (rental or purchase).....	5,000
Idlewild:	
Movables.....	12,500
Land (rental or purchase).....	5,000
Total white.....	61,000
<i>Colored schools.</i>	
Charles:	
Movables.....	3,000
Carnes:	
Movables.....	10,000
Land.....	5,000
La Rose:	
Movables.....	35,000
Total colored.....	53,000
Total for white and colored schools.....	114,000

<sup>1</sup> The cost of land for this building can be met by the sale of sites to be abandoned.

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3. Debatable.

A. B. Hill (Item No. 3, p. 134):	
Movables.....	\$9,500
Land.....	5,000
Bruce (Item No. 3, p. 135):	
Permanent annex.....	98,000
Movable auditorium.....	2,500
Maury and Madison Heights (Items No. 3, p. 136):	
Permanent addition to Maury.....	76,000
	\$189,000
4. Vocational High School shops (p. 136).....	20,000
5. Repairs (p. 136).....	50,000
Grand total.....	2,501,000

Two alternative plans for expenditure of \$500,000.

Plan 1.

Movables for 7 white and colored schools (see item No. 2, p. —).....	93,000
Land for the above.....	21,000
A. B. Hill (see item No. 3, p. 134):	
Movables.....	9,500
Land.....	5,000
Bruce (see item No. 3, p. 135):	
Movables.....	12,000
Peabody (see item No. 1, p. 133):	
New building.....	250,000
Land.....	20,000
Vocational High (see item No. 4, p. 136):	
Shops.....	20,000
Repairs (see item No. 5, p. 136).....	50,000
Total.....	480,500

Plan 2.

Movables for 7 white and colored schools (see item No. 2, p. 131).....	93,000
Land for the above.....	21,000
A. B. Hill (item No. 3, p. 134):	
Movables.....	9,500
Land.....	5,000
Bruce (item No. 3, p. 135):	
Permanent annex, 6 units, movable auditorium.....	98,500
Maury and Madison Heights (item No. 3, p. 136):	
Permanent addition to Maury.....	76,000
Peabody (item No. 1, p. 133):	
Site for new building and one wing erected (one-fourth final building).....	128,000
Vocational High School (item No. 4, p. 136).....	20,000
Repairs (item No. 5, p. 136).....	50,000
Total.....	801,000

The board has the sum of \$250,000 immediately available and \$250,000 available after July 1, 1920. We have considered the two amounts as a lump sum and have suggested two plans for disbursement, each of which is in harmony with the larger plan which has been outlined.

An examination of these two plans discloses that both provide for the immediate relief of the crowded conditions at Cummings, Lauderdale, Peabody, Idlewild, Bruce, Charles, Carnes, La Rose, and A. B. Hill. Both plans also provide temporary relief for the Vocational High School and in both an item of \$50,000 for repairs is to be found. Neither plan affords any relief for Virginia Avenue and the Kortrecht High School (both colored) where conditions are so bad that there seems no chance for betterment until through a bond issue permanent buildings can be provided.

The plans differ in that the first proposes that a site near the Peabody School be secured and a new and permanent building (one-half the size which it ultimately should become) be stated at once and that temporary relief only be given Bruce. Furthermore, it should be noted that Maury and Madison Heights are given no relief.

The second plan suggests that a site for a new building near Peabody be secured but that only one wing of the permanent building be erected at this time. It provides, however, that a permanent annex be erected at Bruce, and that the congestion at Maury and Madison Heights be cared for by erecting a permanent addition at Maury.

It will be interesting to compare the two proposed plans in respect to the amounts which are to be invested for temporary and permanent purposes. A table showing this distribution follows:

TABLE 83.—Distribution of expenditures under the two plans.

	Amounts expended in—				
	Permanent buildings.	Movable buildings.	Land.	Repairs.	Total.
Plan No. 1.....	\$276,000	\$114,500	\$46,000	\$50,000	\$486,500
Plan No. 2.....	307,500	103,500	41,000	80,000	\$532,000

While, as has already been pointed out, money invested in modern movable buildings is not wasted, as these are always needed in every rapidly growing city, nevertheless, inasmuch as Plan No. 2 calls for an investment of somewhat more in permanent buildings and, more especially, as this plan cares for all the present congestion that the first plan does, and, in addition, relieves the acute situation at Maury and Madison Heights, which the first plan does not do, it would seem to the survey staff the wiser step to adopt the second.

## SUMMARY.

*A comparison of the cost of a building program under the traditional plan of school organization, and under the work-study-play plan.*—The board of education faces a serious situation in regard to school congestion. The school buildings, as originally planned, were inadequate for a growing city like Memphis. The congestion has been steadily growing worse until in the present year (1918-19) there are 19,460 children, and a seating capacity for only 14,445. That is, there are 5,015 children in excess of seating capacity. Approximately 50 per cent of the 19,460 children in the 31 day elementary schools are found in 13 schools in the southern and southeastern sections of the city, and 72.5 per cent of the 5,015 in excess of seating capacity are also found in these schools. These 13 schools are: *White schools*—A. B. Hill, Cummings, Lauderdale, Bruce, Idlewild, Madison Heights, Peabody, and Maury; *colored schools*—Carnies, Charles, Kortrecht High School, La Rose, and Virginia Avenue. The children in excess of seating capacity are being housed in basement rooms which are often damp and cold; in portables of a most undesirable type, overcrowded, badly heated, and poorly ventilated; and in old dwelling houses utterly unfit for classroom purposes.

These conditions are such a menace both to the health and to the education of the children that the city of Memphis can not afford to let them continue. Moreover, in the Memphis schools there are few auditoriums and practically none of the modern educational facilities such as shops, laboratories, cooking rooms, drawing rooms, and gymnasiums, which are essential parts of modern elementary schools and which should be provided for in any farsighted building program.

There are two methods of meeting the school congestion problem in Memphis. One is the traditional method of reserving a seat for every child and leaving the classrooms unused when the children are using other facilities. The other method is known as the work-study-play plan by which all facilities are in use all the time for the children.

*Under the traditional plan of school organization.*—It would cost \$3,573,000 to relieve present congestion in the 13 most crowded schools and provide for growth in these schools.

This expenditure, however, would provide only classroom accommodations and practically none of the modern educational facilities such as shops, laboratories, drawing and music studios, gymnasiums, swimming pools, and auditoriums.

Moreover, since only \$500,000 is immediately available, it would be impossible, under the present plan of school organization, to do more than relieve congestion in two schools, Bruce and A. B. Hill, during the coming two years. That would leave 11 schools without relief.

Furthermore, the annexes for the two schools could not be erected in less than a year or two, so that for the present there would be no relief at all.

*Under the work-study-play plan.*—An expenditure of \$2,501,000 would give the following results:

1. Five new buildings of the most modern type could be erected—one for Cummings and Lauderdale, one for Peabody, one for Idlewild, Lenox, and Madison Heights, one for La Rose and Kortrecht High School (colored), and one for Virginia Avenue (colored).

2. Immediate relief could be given to the children in 8 of the 13 most congested schools. By reorganizing these schools on the work-study-play plan and by using modern movable buildings until the new buildings for these schools can be erected, all the children in the eight schools could be given not only classroom accommodations for the regular amount of time in academic work but also opportunity every day for work in such special activities as shops, nature-study rooms, gymnasiums, auditoriums, and playgrounds.

3. A permanent annex to Bryca could be erected immediately which, with the main building, would accommodate a 24-class school. An addition could be erected at Maury which, with the main building, would take care of both Maury and Madison Heights.

4. Additional shops could be provided for the Vocational School.

5. Fifty thousand dollars could be expended in general repairs to all buildings.

To sum up: As was pointed out, there are now 8,438 children in the 13 most congested schools in the city, 8,718 of whom are at present in excess of the seating capacity of the schools. But the organization of these schools under the work-study-play plan would do more than relieve congestion. It will give not only classroom accommodations for the full amount of time for academic work, but it will also give to all the children in the schools an opportunity for play every day in well-equipped playgrounds and gymnasiums, and an opportunity for work in well-equipped shops, laboratories, drawing and music studios, libraries, cooking rooms, or any other special activities desired by the community and school authorities.

Moreover, by lengthening the school day, this plan eliminates the street time of the child and keeps him wholesomely busy at work, study, and play. It also makes possible a better cooperation between the school and other child-welfare agencies. For example, the work in the library can be part of the regular school work, so that the excellent work already being done by the Memphis libraries in cooperation with the schools can be enlarged and extended. Again, as this plan provides for playgrounds in connection with each school, and as these playgrounds are in use every hour of the day, under the supervision of trained playground instructors, it is

not necessary for the city to support separate playgrounds, as is usually the case. Moreover, the playgrounds are used more because they become the natural recreation centers for the children and the adults of the neighborhood.

The work-study-play plan, though not the traditional school plan, has had sufficient trial to show that it is sound not only from an economical but from an educational standpoint. Since under the present plan of school organization it would cost \$3,573,000 for the city of Memphis to meet its school congestion problem without providing for the modern educational facilities, whereas the expenditure of \$2,501,000 under the work-study-play plan would not only solve the present congestion problem, but provide modern educational facilities and a far richer school life for the children than is possible under the former plan, it would seem obvious that the work-study-play plan is the best solution of the school problem of Memphis. It is therefore recommended that the 13 most congested schools in the city be reorganized on this plan, not only as a means of relieving congestion, but of giving an enriched education to the children of Memphis.

## II. GENERAL RECOMMENDATIONS.<sup>1</sup>

### THE SELECTION OF SITES.

The unit of the school building is the classroom. Because of the very important fact that classrooms should be furnished with east and west light, the shape and position of a lot with reference to the cardinal directions have much to do with the planning and practical use of the building. For example, if a site is selected whose long side faces toward the north or the south, and the lot is too narrow to receive the long axis of the building, then most of the rooms are bound to receive either the south or north light, and this is always bad, because, if the lighting is from more than one side, either the teacher will have to face the light or the pupils will have to face it. Either is unjustifiable and unnecessary if window spacing and proportions are properly arranged.

An example of a good building properly orientated is the Rozelle School. The majority of the classrooms in this building face toward the east or west and the lot is large enough to accommodate the building with its long axis from north to south. If the lot, however, had been so restricted that insufficient space had been furnished to set the broad side of the building to the east, another type of building with most of the class rooms opening toward the north or south would have been almost imperative. The board should select lots which will per-

<sup>1</sup>In compiling this report the Educational Survey staff wishes to acknowledge its indebtedness to the Memphis Rotary Club for the many valuable suggestions contained in its excellent report on the school buildings of Memphis.

mit the architect to meet the foregoing requirements. To take another example in order to show how a lot too shallow from north to south is likely to lead the architect astray, we cite the Peabody School. Here, because the lot is comparatively shallow, the building was planned and set so that its broad sides, with its classrooms, face to the north and south. If the lot had been deep enough to set the building with its long axis from north to south, then the classrooms would have received the east or west light, to the advantage of the children and of the teachers. If a block of ground is furnished, then most of the difficulties mentioned can be readily overcome.

Sites should be selected which can be easily drained, and, particularly, so that the basements of buildings can be drained readily. The Snowden School, for example, is situated on a lot that is rather low and inclined to be wet, and to make matters worse, the building is set on ground which is lower than the street level. If this building had been set higher, and the lot filled in so that the drainage would have been away from the building instead of toward it, as is not the case, much difficulty which is bound to come soon would be avoided. The woodwork in the basement rooms is now rotting. These rooms are bound to be damp in summer, and, to some extent, in the winter. All basement walls and floors should be above the water line to keep the building dry. This can be secured most economically and safely by surrounding the building with a form tile drain set at least deeper than the lowest point in the basement floor or foundation. On a site with this type of drainage, ground water will not rise in the basement, and there will not be soggy, damp walls, provided, of course, that roof waters are safely carried away from the building. If a lot is selected where an outlet for such a drain is impossible, then, at best, damp walls are inevitable. It is almost impossible to cement successfully against the inflow of ground water in basements, especially when comparatively deep basements are used.

#### LIGHTING AND WINDOW SPACE.

In this climate if an amount of window space is properly placed to equal one-fifth of the floor surface for the rooms as above outlined, ample light will be afforded. This plan has been well tested and is represented in the Guthrie and the Rozelle Schools. The windows should be closely grouped, slightly to the rear of the left side of the pupils as they sit at their desks. They should be set full 4 feet above the floor and reach within 6 inches of the ceiling. In this particular one of the few serious mistakes was made in the splendid Rozelle School building. The rule is that the bottoms of all windows should be above the eyes of the children when seated at their desks and the reasons for this demand may be briefly stated as

follows: If the bottom of the window is below the eyes of the children, then the light reflected from without will enter the pupils' eyes directly and their eyes be automatically adjusted to this light, which is usually stronger than that reflected from their books or the work in hand. There is a conflict in adjustment, for the children will be intent upon focusing their eyes upon their book, while the stronger direct light will be constantly demanding a different adjustment. Hence, they will either have to shade their eyes or suffer the strain due to these conflicting demands. No one who has not studied this experimentally would imagine the relief that comes to the children when the windows are set as indicated. In this connection we should like to recommend that in all buildings where the windows are not less than 4 feet above the floor, window boards be used to lift the line of light to this height. These will cost little and not only give the children relief as suggested, but aid in window ventilation in cold weather by allowing the entrance of the air without producing disturbing drafts.

#### CLOAKROOMS.

In all elementary schools the cloakrooms should open only from the classrooms, for then the teacher can most effectively guard the wraps, umbrellas, and other belongings, and command better and more seemly behavior among the children. In many cases, in the present schools, the hooks for the wraps and hats of the children are placed at the same height for all the grades, and this is generally a height proper for adults. In many instances, the small children can not reach them, and consequently their belongings find lodgment in the umbrella trough or on the floor. This is another example of how little builders and architects know and think about the varied demands of school life. Careful and competent criticism of plans and construction would have prevented this mistake, and hundreds of others of a similar nature.

#### BLACKBOARDS.

The board of education is to be commended for the almost universal excellence of the blackboards in the city schools. Probably no city in the country can make a better showing in this regard. While the initial cost of the excellent slate boards used has been greater, in the long run they will prove the most economical and satisfactory that could have been selected. But they should be set at the proper height for the children who occupy the various rooms. This principle has been neglected in nearly all of the Memphis school buildings, for in most cases they are set at the same height for all grades. This has

resulted in useless expense and has given much trouble. The black-board should be set approximately 26 inches from the floor for the first and second grades; 28 inches for the third and fourth grades; 30 inches for the fifth and sixth grades; 35 inches for the seventh and eighth; and 36 inches for the high-school grades.

#### FURNACE ROOMS.

It is cheaper and safer to fire-proof all furnace rooms, stairways, and halls than to build outside fire escapes and depend upon them for the safety of the children. The outside fire escapes in the Memphis school buildings are steep and often have their exit from the classroom, where in case of panic, a jam could easily occur and make it much more difficult for the children to get out than if the ordinary interior stairs were used. It would take practically double the time to get the children out by means of the fire escapes, as by the well-placed stairs. A test was made of this, and it was found that it took  $3\frac{1}{2}$  minutes to get a building emptied. The usual time for a school of corresponding size is less than  $1\frac{1}{2}$  minutes. In cold weather, when fires are most frequent, outside iron steps may be slippery, and even more dangerous than usual. The best modern practice is to construct the coal rooms, furnace rooms, halls and stairways of fireproof materials, and then, with carefully planned and frequent practice fire drills, to depend entirely on the regular stairways for safety.

#### HEATING AND VENTILATION.

Owing to the fact that the investigations of the school buildings were made during the warm season when no fires were needed, investigations of the heating plants had to be limited to general observations, and to such information as could be obtained from the janitors, principals, and teachers. The general use of the low pressure steam heating system is to be commended and save in a very few instances, no complaint was made as to the effectiveness of the installations. In some schools, however, an extremely objectionable feature of the heating plants was noted, i. e., openings have been made in the floors of the lower halls through which heat may arise through a grating from a radiator. Foul air from the basements is thus drawn into the halls and classrooms above. Some of these openings issue from points not far removed from toilets, and furnace rooms, while others open from parts of the buildings not ordinarily furnished with clean, pure air. Such a situation is unjustifiable and should under all circumstances be prevented in future buildings. It is usually safer, cleaner, and cheaper to use radiators in halls, for these can be set and easily arranged to accommodate the children who need to warm their feet, or dry their clothing.

Most of the buildings have not been furnished with sufficient and convenient space for the storage of coal. Doubtless anxious times come in extreme weather when difficulties of immediate delivery are encountered. In future buildings provision should be made for larger and safer rooms for the storage of fuel. Prices are generally reduced for summer delivery, and if the winter's supply can be stored during vacation much annoyance, as well as money, will be saved. As it is unsafe to bank slack coal very deep, larger rooms should be provided. In many instances much fuel could be saved by covering the exposed steam pipes with asbestos. It is poor economy to neglect this saving.

Ventilation in the various buildings is secured through the use of open windows. This is probably the best method for the climate of Memphis during either winter or summer, if the teachers are scrupulously careful in regard to opening the windows from both top and bottom. It was observed, however, that very few windows were lowered from the top as well as lifted from the bottom. The reason for this neglect was due largely to the fact that no window poles were furnished; in fact few of the upper sashes were provided with catches to receive the hook of a window pole. This ought to be remedied before the beginning of another school year. Doubtless one reason why the upper sash is infrequently lowered, arises from the fact that the window shades in use are fastened to the top of the casing. Unless they are completely rolled up when the sash is lowered the shade is caught by the incoming air and blown about noisily. In the future some sort of an adjustable shade should be used.

#### DRINKING FOUNTAINS.

Strange to say, one of the most difficult things to get into the heads of adults is the fact that children are not so big as adults, nor so tall as adults. In a great majority of the buildings, the drinking fountains are set a little too high even for adults to use easily. Many of them indeed are so high that the small children can reach them only by tiptoeing or climbing up on the fixtures, or on a bench. It would have cost less to set them lower, moreover if they were lower all the children could lean directly over the bubble, drink without touching the fixtures with their mouths, and save themselves from wetting their clothing. Under the present conditions, common cups would be almost as sanitary as the fountains now in use. We recommend either that all the fountains be lowered, or benches set so that the children may bend over the cups and drink without touching the fixture with their mouths. In all future buildings the board should see to it that a better type of fixture is used, and they be set to suit children.

## STOREROOM.

Broken furniture, supernumerary desks, and other supplies should be stored in a centrally located storeroom rather than in the basements of school buildings. The basements could then be cleaned up, and materials checked in and out as needs dictate. There should also be a shop for a mechanic where furniture may be repaired and accurate check kept on all valuable materials.

## FLOORS.

Scrubbing schoolroom floors is a serious blunder, except in very rare instances. Nothing will ruin a good floor more quickly than frequent scrubbing. It should be cleaned by sweeping with a brush, broom, and dustless sweeping compound, as is generally done in the Memphis schools, and when necessary to insure a more thorough cleansing should be scrubbed with sandpaper. If, however, floors are kept well waxed or properly oiled so as to keep the joints tight and the pores of the wood well filled, this will rarely be needed. In some of the buildings scrubbing is still customary and the floors are in bad condition.

## TOILETS.

In a large number of the older buildings the old type of latrines is used. That is to say, a seat is not necessarily flushed immediately after use, but all are flushed at the same time by an automatic tipple, which, as it fills with water will ultimately reach a plenum point where it becomes overbalanced and discharges enough water to cleanse all the seats at once. Some of these are set to fill rapidly and discharge frequently; others are set to discharge only during or after intermissions. It is plain that this system is either wasteful of water, when set to insure frequent regular flushings, or open to the objection of retaining waste too long. Such a condition fills rooms with odors, necessitates that seats be used more than once before being flushed, or that the janitor be on guard constantly to see that they are flushed whenever needed. It is bad policy to waste water, but it is unreasonable to expect the janitor to be always on guard, not only during intermissions but more or less during the entire day. In many cases, we found that waste from the previous day would remain in the toilets all night because the janitor had cut off the water apparently immediately after recess and took no account of conditions thereafter. Most of them were open to flies and of course were insanitary and objectionable.

It is asking too much of any janitor both to save water and to keep this type of toilet entirely sanitary. It is recommended that no more of this type be installed, and that at the earliest possible date

those now in service be taken out and a modern individual wash-out system installed. Further it is recommended that until this is possible the janitors be all directed to adjust the flow of water so that during the entire school day the toilets will flush frequently and automatically; be cut off at night only after all children have gone, and turned on again as soon as the children arrive at school. This will necessitate the use of more water, but it will save the janitor's time and make conditions much more wholesome. All outside toilet buildings should be locked immediately after school and kept locked until the children return. This is not always done, and as a result outsiders may enter, and are likely not only to misuse the building, but frequently to leave obscene scribblings.

The automatic sanitary individual flush toilets we found in the newer buildings are perhaps as good as any for the larger children, but they are not satisfactory for the smaller children, because they are too difficult to mount and frequently too slow to fill for good flushing. It is indeed strange that there are no juvenile sizes of toilet seats in the Memphis schools or, for that matter, in the schools of nearly all the other cities of this country. Toilet seats are all of the adult size and set at a height to accommodate adults. Consequently, the little folks have to climb upon them, and slide off them, much to their discomfort and to the disadvantage of cleanliness both for the children and the seats. If adults were subjected in a time to such inconveniences, possibly they might come to think more carefully of the needs of the children. A barrel would be but a little less too tall or too large for an adult than adult toilet seats are for the little ones. It is recommended, therefore, that in all buildings constructed in the future and designed to accommodate children of the primary grades, the architects be directed to specify a proportionate number of juvenile seats and to segregate them from the larger ones. This will automatically segregate the smaller children from the larger in these rooms, accommodate them more decently, and also save expense and space.

Many of the toilet rooms are dark and badly ventilated. This is generally true of those in detached buildings as well as of those in the basements of the school building proper. These conditions are due most frequently to the faulty planning of the building, and in many instances conditions have been made worse by faulty placing of the seats and the urinals. It is a serious mistake, in planning school buildings, to think of the toilet least, or at least not to have in mind from the start that these necessities demand the best possible position with reference to the proper accommodation of the children as well as of the requirements of sanitation. In all future buildings the toilet rooms (a) should be placed with their long side to the east, west, or south side windows so that they may receive as much

direct sunshine as possible, for under no other conditions can they be kept so sanitary and decent; (b) they should be made not over 14 feet wide for the boys, or 12 feet wide for the girls. The reason for these recommendations may be briefly stated as follows: (1) If you wish children to preserve decency and cleanliness in school toilets, *turn in the light*; (2) if you wish children to avoid gathering and loitering in the toilets, make the rooms just large enough to meet legitimate needs; (3) if you wish to render the toilets free from odor, and keep them sanitary, let in the sunshine and fresh air. The prevailing practice in Memphis has been to place the seats and urinals in rooms with the short side to the light, so that the seat stalls are dark, and the urinals get little direct ventilation. Many have a double row of stalls set back to back. This arrangement always makes the room quite dark and necessarily makes one set of stalls face directly from the light. Furthermore, it makes it impossible for a principal, teacher, or janitor to make a quick inspection of the room and thus forestall license and carelessness on the part of children whose standards of decency and propriety are still relatively low.

Many of the seats in the various toilet rooms are broken and should be repaired at once and kept in order. The moment a toilet fixture gets out of repair that moment an increased carelessness on the part of the children will begin. It is a curious phenomenon that children will express their disapproval of conditions in toilets by deliberately making them worse.

In practically all the buildings furnished with the slot and stall urinals the floors instead of being sloped to wash out into them and thus insuring the minimum of saturation of the cement floor with urine, slope into an outlet in the floor some distance from the slot. Consequently, the urinals fail to get the advantage of an extra flushing whenever the floor is washed. This could all have been avoided by setting the slot of the urinal lower and setting the floor to slope to it instead of to a separate drain in the floor. Here, again, the need of sunny, well-ventilated toilet rooms is emphasized. The more soiled the floor becomes in front of the stalls the farther back the boys will stand and the more liberties they will take. There are better types of urinals now than the slot form, though in justice we must say that these represented about the best at the time they were installed in these buildings. We recommend that in the future the individual enameled small type be used. They are liable to be more expensive in their initial cost, but in the long run cheapest and best. The trough urinals used in many of the buildings are generally rusty and discolored. They should be painted and put in good condition at once. Here, again, is an illustration of how little architects and

builders think of the actual needs of children. Nearly all of the urinal troughs are set so high that the little boys either have to tip-toe to use them or in some cases have to climb up to them. How long would such conditions last if adults had to endure them? In general, the trough type is objectionable, but since they have been installed it will doubtless not be feasible to substitute a better type in the immediate future. It is, therefore, recommended that either they be lowered to suit the needs of small boys, or benches of a suitable height be set for the little boys to stand on. The use of white tile and glazed brick for the floors and walls of toilet rooms is to be commended.

#### JANITOR SERVICE.

The janitor service for the schools of Memphis is for the most part below the standard which should be maintained. The causes for this situation may be stated as follows;

The salaries paid are too low to attract and keep in the service those who might be expected to study their work intelligently and professionally, and to have sufficient vision to appreciate the educational and sanitary significance of the proper care of school buildings and school grounds. (A salary schedule is suggested in Chapter II.) Boards of education will never serve their people properly until they come to realize that one of the most important persons about the school is a well-qualified, capable janitor. He must be able to understand the proper use of all the equipment connected with a modern school and know how to care for it and keep it in order. He must know why cleanliness is demanded and take a pride in the care of his building. He must know how to sweep, set desks, ventilate, how to use and adjust thermostats, how to build fires to save coal, how to minimize fire hazards, how to deport himself in the presence of teachers to command their respect and appreciation, how to guard the morals of the boys, especially in toilets and on the school ground, and how to command their respect and secure their good will in every way possible. He must have sufficient initiative and skill to meet emergencies, and to devise better ways to keep the building and grounds neat and attractive. The time has passed when anyone who can wield a broom and build a fire has fulfilled the requirements of a janitor. He, too, must teach, not from books, but through standards of decency, neatness, sanitation, and that sense of propriety and orderliness which every community needs more and more.

While the school buildings of Memphis were doubtless seen under the most favorable conditions, since the coming of the survey staff was anticipated, and the janitors had made ready for such visits as does the average housewife for visitors, yet the evidence of lack of proper supervision of janitor service was more or less general. The survey staff was told that the janitor was directly responsible to the

principal of the school, and therefore under his immediate supervision. This is as it should be, but it carries with it the necessity on the part of the principal of making frequent and careful inspection of all parts of the building and grounds, in order to cooperate with the janitor and to direct him intelligently in his work where this direction is necessary. There is an evident lack, however, of such supervision. Either, there is no practical authority allowed the principals, or else many of them have not taken that vital daily interest in their buildings and grounds that one would expect them to take in their homes.

The janitor service apparently reflects a general lack of close supervision of the system as a whole. That is to say the standards of sanitation and tidiness observable in general would be improved to a marked degree by closer and more minute supervision from the central office. For example, we believe it would be eminently advisable that a school for janitors should be instituted and maintained through which the superintendent of schools could set up higher standards of service and develop a real professional interest in this very important branch of the school work. During the coming year a schedule of lectures, demonstrations and conferences for the janitors should be instituted, so that they could be brought together at least once a month in some central place, with the opportunity to organize themselves by electing one of their most efficient members as chairman, and working out a regular program bearing on the problems they meet daily. Included in this program there should be occasional lectures by the superintendent of schools, city health officers, the department mechanic or engineer, a representative of the fire department, and any others competent to teach them the fundamental significance of their work, and in a measure to dignify it and make it of real interest, not merely a task.

One of the big problems of the schools in the South, where the climate makes larger demands on sanitation and cleanliness than in other sections, is that of inculcating in our children a permanent taste and an intelligent understanding of the importance of sanitation and neatness. The schools should do this by setting the example and by direct teaching. Who is responsible, for example, that in certain public school buildings of the city we should find that parts of the basement are used as hen houses, or to store furniture not belonging to the school, or where much useless debris has accumulated to gather dust and dirt as well as create a fire hazard, or where drains are clogged to the detriment of the buildings and grounds, or where barrels and cans furnish breeding places for mosquitoes, or where schoolhouses are menaced by insanitary conditions of adjacent property, or where shrubbery is allowed to grow so near to the build-

ings as to shut out the sunshine from basement rooms, and hundreds of other details calling for improvement. It can not all be laid to the janitor, to the principal, to the superintendent or to the board of education, or the city health authorities. All are involved, and all should cooperate to set things in order and make the janitor service a real educational service as well as a housekeeping necessity.

The authorities are to be commended that so-called "dust-down" is used in sweeping, but we were surprised to find feather dusters just as frequently used. Feather dusters do not remove dust—they merely scatter it in the air—and as the dusting is generally done in the morning before school begins, the children breathe more of it than they would if it were left on the desks. They would get it on their hands, in that case, which would be bad, but not so bad as to breathe it. Dusting of all furniture should be done with prepared cloths or mops, so that it may be removed from the rooms and not merely stirred up to be inhaled or to settle again. We recommend that feather dusters be at once abolished and that dustless cloths or mops be used instead.

The method of paying a lump sum per month for the total janitor service and then of permitting the janitor to hire his own help is open to the objections that there is a constant temptation for him to hire cheap labor, to do too much and, consequently, slight some parts of it, and at times to introduce people into schoolrooms who, for health or moral reasons, have no right there. Let us illustrate by taking a single example, though for several reasons omitting names: One large building was visited where obviously there was too much work for any one person, however energetic and competent, to do thoroughly and satisfactorily. But, in order that the total income might be for personal use, no help was secured. As a result the building was not clean and, indeed, in many places disreputable dirty. It is recommended that the superintendent of schools, with the aid of the principals, determine the amount of service needed for each building and select personnel to do it. While there should be a chief janitor, he should receive a definite and direct salary for his work and be held personally responsible for its successful completion. (See Chapter II for further discussion of this point.)

In several of the buildings we found the janitors serving lunches to the children, and thus dividing their time and possibly being tempted to use this opportunity as a source of income. In some of the buildings we observed that the lunches were being served under insanitary surroundings and the food being handled by unclean hands. This should not be permitted. If no better method than this can be devised, serving lunches at schools should at once be abandoned.

There is an evident lack of definite program of service for the janitors, and as a result many of them are being called on for services which they should not be asked to perform. We found that at times they serve as messengers, take care of the children who report to school before the teachers arrive, look after the boys on the playground and in the basement, and do various other services not strictly germane to their jobs. The first duty of a janitor is to keep the building and lot in as good condition as possible, and this includes a surprisingly large number of things. Teachers sometimes forget that the janitor's day is a very long one. In cold weather his fires must be burning very early, and sweeping must be done after schools have closed, and "acres of floor" are not quickly cleaned. It is, in general, a bad policy for janitors to be called on to do any sort of personal service, for their time and strength has been purchased by the board of education for another purpose. Teachers should be detailed to look after the children on the school grounds and see that they clean their shoes, refrain from scattering paper from luncheons, or in any way misusing the building. These are educational opportunities and should be utilized for the sake of the training of the children as well as from the point of view of caring for school property. (See Chapter II.)

We recommend that better means at most of the schools be provided for removing mud and cinders from the shoes of the children before they enter the building. The cost will be very little, and if the teachers demand of the children that they clean their shoes carefully the building will be much easier to keep clean, the floor will last longer, and the hygienic condition of the building much improved.

There is an air of general carelessness regarding the neatness of the school grounds. Scattered paper, loose boards, piles of ashes, and other debris were frequently seen. No service about a school is more acceptable to all concerned than neat, orderly, and well-kept playgrounds. This is the janitor's business, and with proper encouragement and cooperation on the part of the principal, teachers, and pupils it should require comparatively little of his time to keep the whole environment neat and clean. Children unconsciously respond to such conditions and are most easily managed as a result.

#### SUGGESTIONS REGARDING INDIVIDUAL BUILDINGS. (WHITE SCHOOLS.)

##### BRUCE SCHOOL.

The toilets in this building are clean, but inadequate.  
Classrooms in the basement are unsatisfactory.  
Classrooms are tinted a dirty yellow and they should be cleaned and re-tinted a light color.

The three buildings used as annexes to this school are badly adjusted and unfit for school purposes.

The toilet facilities of these annexes are inadequate and the buildings are dangerous fire hazards.

#### CENTRAL HIGH SCHOOL.

This is a modern and in many ways up-to-date school building. The grounds are especially beautiful and large and the wisdom indicated by the purchase of this school site is to be commended.

The jar from the engine under the stage is quite annoying, and something should be done to stop the vibration. The trouble is apparently caused by hanging the steam pipes to the concrete floor above. The class in physics might be set the problem of trying to eliminate this obvious fault.

The building begins to indicate the lack of care; for example, the drain pipe from the roof of the manual arts room, in the rear, is missing and should be replaced at once, as the water from the roof pours down the side of the building and keeps the walls damp.

Many window shades are badly mutilated, giving the rooms a ragged, unkept appearance. We also note that many of the teachers are careless with reference to adjusting their shades so as to secure the best light. Here, as in the Rozelle School, the bottoms of the windows are too low, so that the reflected light comes into the eyes of the students, rather than on their books. Quick relief would come if this were corrected with window boards.

The students here are more careless with the building than they should be; witness the condition of the room turned over to the athletic team.

The wisdom of installing a complete electric plant for this building, necessitating fires under the boilers every day in the year, is doubtful. It would be a good piece of research work for those who are interested in engineering in the high school to determine the cost of such plant and of the direct purchase of the city current. There is an increasing tendency to depend upon city current rather than to manufacture their own electricity in the larger schools throughout the country.

#### CHURCH HOME SCHOOL.

We feel it our duty, since the city of Memphis furnishes the teachers for this school, to call attention to the fact that the rooms furnished for class purposes at this school are unsatisfactory. The small rooms are inconvenient, while all of them are badly lighted. We have no special recommendations to make, but it is your duty to see that these children are provided with better classrooms.

#### CUMMINGS AVENUE SCHOOL.

This building is in a good state of repair, but unfortunately it was so planned that it is almost impossible to add to it without practically rebuilding it.

#### GORDON SCHOOL.

This building is in good repair, but as with all the other buildings erected about the same time or previously, it was badly planned. It is lighted from two sides, forcing the teachers to face the light.

## GUTHRIE SCHOOL.

This is a good type of building, but unfortunately was not designed to face the proper direction. At present nearly all the classrooms get only the north light. Had this building faced the east much better conditions would prevail in the classrooms. This building deserves commendation because it was planned originally so that additions can be made at a minimum cost without disturbing the architectural unity.

The remnants of the old building which burned should be removed as soon as possible, as it is now unsightly and of no use.

The toilets are well made, but unnecessarily large; the stalls should have been placed against the walls instead of back to back; this makes half of them quite dark. The urinals were not set with the proper slope, and the floors will tend to saturate with urine and become odorous. This defect should be corrected at once.

## A. B. HILL.

This is a good building, and well placed on dry ground. Some of the desks need resetting so as to get the light from their left as the children occupy their desks. The cement work in several parts of the building is not up to standard, and is in need of repair. There is a leak in the eighth-grade room and in one or two other rooms. These should be attended to at once else the plastering will fall.

We found the building in acceptable sanitary condition.

## IDLEWILD SCHOOL.

The four portable buildings located in the rear of this building are crowded entirely too close together for the sake of ventilation and general convenience. While these portable buildings are in a fair state of preservation they are not good types and no more like them should be purchased. The stoves in these buildings are without jackets and rusty. If these are to be used another winter they should be surrounded with a jacket so as to distribute the heat better and to prevent those near the stove from becoming overheated.

The boiler room in the main building should be fire proof. The building as a whole was neat and clean with the exception of some useless junk in the basement.

The toilets should be put into good condition and the walls cleaned.

## LEATH SCHOOL, NOS. 1 AND 2.

If building No. 1 is to be used for any length of time an entirely new heating plant should be installed, for the present heating system is insufficient and somewhat dangerous. This building is a real fire hazard.

The boys' toilet in this building is both insanitary and inadequate. It should be torn out and a complete set of modern toilets installed to accommodate both buildings.

The basements of both the present buildings should be reconstructed. The fresh-air rooms are dirty and the foul air from the basements can get directly into the classrooms.

Much junk was found everywhere in the basements, all of which should be removed as soon as possible. Rats are also in the building and are not only dangerous but a menace to health.

#### LEATH ORPHANAGE.

The only suggestion we have to make concerning this school is that teachers should be more careful in the placing of the desks.

#### LENOX SCHOOL.

The roof and gutters of this building need immediate attention.

In a number of the rooms the desks can be better arranged for the advantage of the children.

The window shades are in bad repair and should be looked after immediately.

In this building we found fire-screen doors at the foot of the stairways which were doubtless placed with the best of intentions. We wish to say, however, we believe they are entirely useless, and the rather heavy expense incident to their purchase represents a mere waste. The theory of these doors is this: They are supposed to shut off the main buildings and the halls from the stairways so that children may use the stairway without danger of being cut off with fire from the main part of the building, but this theory will not bear any thoughtful consideration. If these doors are to be kept shut all the time, and they are useless if they are not, how are the children to get out in case of fire, even to the stairway?

Strange to say, in the girls' toilet here there was much disgraceful writing, while the boys' toilets were comparatively clean. It is only just to say that both of these toilets were in sanitary condition.

The difficulty of heating the second floor is doubtless due, first, to the lack of radiation in these rooms, and, second, to the fireproof doors above mentioned, which when closed prevent the heat from the lower halls going up the stairway. If these doors were removed or kept open we believe the upper rooms would be more acceptable in cold weather.

#### MADISON HEIGHTS SCHOOL.

Here, as in most of the older buildings in the city, the old type latrines are used, but these were unusually clean and free from odor. Many of the seats were broken and need immediate attention. The toilet rooms for both boys and girls were badly defaced with scribbling; much of it obscene.

The drinking fountains, as in nearly every building in the city, are set at the proper height for adults rather than for children.

Here, as in a number of other school buildings, the old-time platform in the classrooms still obtains. They should be eliminated as soon as possible. They are in the way and serve no useful purpose.

The level of the floor in the boys' toilet should be raised so as to drain properly into the slot in the urinal, and the vulgar writing in both toilets should be obliterated.

#### MAURY SCHOOL.

This building is nicely placed on a fairly good-sized lot, but the terrace should be sloped so as to drain the water away from the building. Now the walls are wet from surface water. The roof has been leaking or is leaking, and the plastering needs repairing.

Some of the shrubbery should be cut away from the walls of the building so that they may dry out and all the waste paper scattered over the ground should be cleaned up.

## MERRILL SCHOOL.

The toilets for both boys and girls are inadequate and insanitary. Strange to say one of the toilets has no outside light and no direct ventilation. Such conditions should not be permitted to exist.

The school rooms are lighted from two sides, which is very hard on both pupils and teacher.

## OPEN-AIR SCHOOL.

This is a splendid single-room open-air building. It is to be hoped the board of education will watch results of the work here very carefully for when this is done they will doubtless decide that more open-air schools should be constructed in various parts of the city. The building was well kept and altogether desirable.

It would be a good policy to provide open-air rooms to all the large buildings in the city.

## PEABODY SCHOOL.

One of the portable buildings used at this school has been set so as to get the north light instead of the east or west. If this building is used another year it should be faced about to get the proper orientation.

## POPE SCHOOL.

The boys' urinal in this building we found quite odorous. This is due to the fact the slot outlet is higher than the floor and the urine has a tendency to soak back into the cement floor. This could be corrected at very small expense.

There are fine playgrounds located at this building.

There is too much junk in the basement. This ought to be cleaned out for it is always dangerous and clutters things up.

This is a good type of building and the additions are in good condition.

## RIVERSIDE SCHOOL.

This building is badly placed with reference to noise and possible dust from the spike factory in the immediate neighborhood.

The lighting in many rooms is inadequate; here again the mistake of bilateral lighting was made.

Many of the desks in the building are rickety and badly adjusted; very large numbers of them should be reset and properly spaced.

There is an excellent gymnasium and playroom connected with this school. The floor of this gymnasium should be shellacked and waxed, for it is beginning to wear badly.

The area way to the door of the furnace rooms are disgracefully dirty. There seems to be no outlet, and they were partly filled with water and paper and bits of bread, making a very disreputable appearance. These should be drained and covered at once.

The clothes hooks here as in many of the other buildings were set at a height to suit adults, and hence out of reach of the little folks.

## ROZELLE SCHOOL.

This is by far the best grammar school building in the city. It is well planned, and in the main well built. Cement work in the basement is not so good as it might have been; the toilet rooms in this building were in splendid condition, but unnecessarily wide. The seats here as in all the other buildings are of the same height and really of adult size.

The board is to be commended for introducing shower baths in this building, although in the boys' room no provision has been made to hang up their clothes. It was unfortunate that the architect set the windows too near the floor. As a result the children are going to be troubled uselessly as long as this building lasts.

This building is so well adapted for its purpose and so much more thoughtfully planned than any others in the city it can in the main be used to illustrate the best principles of school architecture.

Greater care should be exercised in the handling of ink, for the floors are becoming badly stained.

#### SMITH SCHOOL.

This building is by no means fireproof and should be guarded with great care. Quite a bit of "junk" was found in the basement, which should be removed at once.

Outside toilets were clean and free from odor but are not sufficiently shielded from the classrooms above.

The drinking fountains were made of small pipes with elbow and faucet. They are not a bit more sanitary than common drinking cups.

In a number of rooms the desks should be reset so that there will be less space between desk and seat. Many of them are now set at a plus distance, when they should be at a minus distance.

The classrooms were found as neat and clean as conditions would permit.

#### SNOWDEN SCHOOL.

This building was set on ground entirely too low and as a result the woodwork in the basement is now rotting and the walls are damp.

The girls' toilet room is especially dark and wet. The shrubbery in front of it should be cut away to let in the sunshine.

The building is of a rather good type and is being well kept.

#### ST. PAUL SCHOOL.

Both boys' and girls' toilets in this building are inadequate and in very bad condition.

The basement should be reconstructed and modern plumbing and toilets installed.

The walls should be cleaned and tinted with light color.

The basement ceiling in connection with the furnace room and cold storage should be rendered fireproof at once.

#### VOCATIONAL HIGH SCHOOL.

The basement floors should be cemented all over at once. Much "junk" in the way of broken or supernumerary desks, pipes, gymnasium material, old batteries, and other litter was found in the basement. These should be removed and basement cleaned up.

The toilets are the old-fashioned latrine type, set back to back, in dark and filthy rooms; seats wet and dirty, and in very unsanitary condition.

The walls of the schoolrooms should be retinted a light color.

The bayou in the rear of the school should be inclosed in an aqueduct as it is now filthy and unsightly.

#### JEFFERSON STREET SCHOOL.

The seats in the present room should be arranged to face the east instead of the south. The walls should be retinted with a light color; the green now

tending to absorb too much light. Boys' toilet in bad condition and should be corrected at once. The building was clean, but schoolrooms have insufficient light.

## COLORED SCHOOLS.

## CHARLES AVENUE SCHOOL.

This school is housed in two old miserable shacks. The rooms are dark and the floors rotten. The buildings should be condemned at once, as they are unfit for occupancy of any kind.

## CARNES AVENUE SCHOOL.

We found the basement of this building full of all sorts of junk and in a very insanitary condition.

When the former hot-air system of heating was replaced by a steam system the hot-air ducts were cut off from the furnace but have been left open so that the dust and dirt arising from the furnace as well as the bad air goes directly into the classrooms and halls. We can not understand why this has been permitted.

Directly in the rear of this building the so-called county morgue is situated. In the neighborhood also are kept many horses, and the whole vicinity is saturated with the odor of this condition, and millions of flies are breeding to torment the neighborhood. The health authorities ought to see that this nuisance is eliminated.

This building is capable of much additional use if the environment were made more acceptable and everything put in good condition. Better janitor service should be demanded.

We suggest that some additional windows be introduced into some of the rooms to provide more light.

## GRANT SCHOOL.

The toilets in this building are also inadequate and badly placed, and we found them in an insanitary condition. In fact, it would be impossible for the janitor to keep them neat and clean. Urinal troughs are too small to accommodate the boys, and consequently they use the floor.

The drinking fountains in this building, as in nearly all the other buildings, are badly set and mostly insanitary.

The furnace room is too low for the drainage and consequently is wet and nasty. The area ways outside the building are stopped up with dirt and filled with water, and of course furnish breeding places for the mosquitoes.

Three of the large rooms and one small room have the desks set with the backs of the children to the right instead of to the left. These should be rearranged.

## GREENWOOD SCHOOL.

This building is badly placed with reference to the railways and manufacturing establishments of the neighborhood. The classes were crowded, and if this building is to be continued in use additional classrooms must be provided. The toilets are inadequate and of the antiquated type.

## KLONDIKE SCHOOL.

The building is heated by badly cracked unjacketed stoves. The building is in danger of catching fire from these stoves.

The building is of an old antiquated type, in bad repair, and should be abandoned as soon as possible. We do not believe that it would be wise to undertake to reconstruct or make additions to this building.

KORTRECHT HIGH SCHOOL.

The outside toilets in this school are quite inadequate and in very poor condition; many of the seats are broken.

We found the basement full of junk of all sorts. This should be removed at once, for the building at best is a fire hazard.

In this building, as in several others, there is a definite provision whereby foul air from the basement is conducted directly into the classrooms and halls. The janitor said the intake windows had never been opened. Such conditions indicate lack of supervision and direction.

This building occupies a very bad situation between two railway stations; it is noisy and smoky and dirty. The whole atmosphere of the place is one of lack of care.

KORTRECHT GRAMMAR SCHOOL.

This building is very badly placed, because of its close proximity to the Rock Island freight depot. It is badly crowded and the rooms in the central part are dark. These can be remedied by introducing more windows.

The basement is wet and in bad condition. It should be looked after at the earliest moment.

Outside toilets were foul and insanitary. The dump is not set to flush often enough.

In the older part of the building new sashes are needed.

The basement should be thoroughly cleared of all the junk, and especially the chickens under floor.

LAROSE SCHOOL.

This school represents about the worst situation in the city of Memphis. Elsewhere recommendations have been made concerning this particular school. Certainly it would be worse than disgraceful to continue conditions now existing there.

PORTER SCHOOL.

This is an old one-story wooden building of nine rooms, with the addition of two portables on the ground.

The toilets are bad and should be reconstructed and made sanitary.

The shades to the windows are worn out and should be replaced with new shades at once.

The stoves should be jacketed and the foundation to the building should be inclosed to make it more comfortable in extremely cold weather.

Several of the rooms in this building need more windows, which could be provided without great expense.

The plastering needs repairs and the roof is leaking; in fact, the whole building needs a thorough going over.

VIRGINIA AVENUE SCHOOL.

This is a very old building, badly crowded, and situated immediately between the Rock Island and Frisco railroads. It is on low ground and in a very insanitary condition. The classrooms in the basement are totally unfit for children.

Window shades are lacking in many of the rooms, and what there are are mostly worn out.

The toilets are inadequate and insanitary. They are unfit for anybody to use.