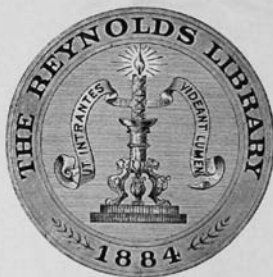


The Cost of  
Public School Education  
Rochester, New York  
1923



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The Cost of  
Public School Education

Rochester, New York

*1923*



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## INTRODUCTION

Rochester, like practically every other city in this country, is finding it increasingly difficult to finance public education. Those who have given close study to the problem clearly recognize, so far as Rochester is concerned, that it cannot be solved by any economies, however drastic, that may be effected in carrying out the present public school program. In other words, the city authorities, the Bureau of Municipal Research, and the Board of Education, are unanimously agreed that under the present method of financing Rochester cannot go on with all the work that it is now doing in the public schools and in the other departments of city government, and at the same time live within the financial limits set by the State Constitution.

These same three bodies are, likewise, unanimously agreed that the only sound and practicable solution of this financial problem which the city is facing, is in the separate financing of the public schools. Through such financing the people of Rochester would, at least, be legally free to spend as much money on schools and other public activities as they are able and disposed to spend. At the last session of the Legislature a bill providing for such separate financing was introduced. Everything now indicates that it will be introduced again at the coming session of the Legislature, thereby giving to the people of Rochester an opportunity to choose between some different method of financing public schools, or accepting a very substantial reduction in the lines of work that are now carried on. Under these circumstances the importance of definite information concerning the schools is obvious.

The primary purpose of the report which follows is to set forth the present public school program of Rochester and the cost of financing it. All costs are for the fiscal (calendar) year 1923. The report gives other information that is believed to be valuable but that is of secondary importance. It distinguishes, for example, between those activities that are required by the State and those that are optional with local authorities, and it indicates the nature and extent of State aid. It gives certain comparative costs for 1912 and 1923, and explains the causes for the increase in 1923. The year 1912 has been chosen for the comparison because it is the latest pre-war year for which the Board of Education has issued a report on the public school activities. But these and other similar items treated in the report, are given solely for the light which they may throw on the present program and the cost of public school education in Rochester.

At the present time there are seven units of school organization in the Rochester school system. These are as follows: 1. The Elementary School Unit, 2. The Special Education Unit, 3. The "Part Time" or Continuation School Unit, 4. The Junior High School Unit, 5. The Senior High School Unit, 6. The City Normal School Unit, 7. And finally the Unit for Adult Education.

The report gives not only the total operating cost of each of these units but it attempts to distribute these costs in a way that will give the reader specific information. If the kindergarten be taken for purposes of illustra-

tion, the first step is to state the purpose of the kindergarten, or the work that it is attempting to do. It then gives the average cost for maintaining the kindergarten, the average cost for each child in the kindergarten for 1923, and the aggregate cost for the same year. The report then distributes these costs among the lines of service rendered. No attempt is made to follow any technical cost accounting plan but rather to give a cost distribution that can readily be understood by the lay-reader. The three main items of the distribution are as follows:

**Instructional Service.** This will include salaries for professional and other closely allied lines of service within the school units mentioned above. That is to say, the "Instructional Service" per capita, or cost per pupil, will include all salary expenditures for class room instruction and for administration and supervision within the school. Thus, as applied to kindergarten costs, the salaries of all kindergarten teachers and a proportionate share of the salaries of principals, clerical assistants, and full time supervisors who are assigned to the school itself and whose names accordingly appear upon the payroll of the school, will be included under this item. This item will not include any salary expenditures for janitor service nor for central supervision and administration.

**Other Current Operating Expenses.** This item will include all other expenditures except those for debt service. It will, accordingly, include salaries for all directors, supervisors and supervising teachers from the central office; salaries for the members of the Board of Education, the superintendent of schools and his assistants, the superintendent of buildings, the secretary of the Board of Education, and the like; the salaries of janitors and others required for operating and maintaining the school plant; and expenditures for equipment, repairs to the elementary school buildings, as well as coal and other supplies.

**Debt Service.** This item will include all expenditures for debt service incurred for the purchase of sites and the erection of school buildings prior to January 1, 1924. In other words, it will include moneys paid during the fiscal year 1923 for the redemption of bonds and for interest charges on outstanding bonds.

It will be noted that this report does not discuss the Junior High School, but simply includes the cost of operating the Junior High School for 1923 in the table at the close which summarizes all costs. The reason for this is that the Board of Education has issued for this same year, 1923, a separate report on the Junior High School. This report, known as "The Junior High Schools of Rochester, N. Y." gives much more detailed information concerning this particular unit of school organization than is attempted for the units discussed in the following report.

It will be noted further in reading this report that no attempt is made to discuss the extent to which the aims of each of these units of public school organization are being realized. This subject will then be treated in a separate report which it is now planned to publish not later than the close of the school year in June, 1925. This will mean a series of three reports which it is hoped will give a reasonably exact and comprehensive knowledge of the work now done in the public schools of this city.

HERBERT S. WEET  
*Superintendent of Schools.*

# TABLE OF CONTENTS

	<i>Page</i>
Introduction .....	1
<b>Chapter I. The Kindergarten</b>	
Sec. 1 Purpose and Cost .....	9
Sec. 2 Increased Expenditures .....	10
<b>Chapter II. Primary or Elementary Education</b>	
Sec. 1 General Aims .....	13
Sec. 2 Specific Aims and Costs .....	15
<b>Chapter III. Elementary Grade Instructional Costs</b>	
Sec. 1 Distribution of Instructional Service Costs .....	23
Sec. 2 Increased Expenditures .....	32
Sec. 3 State Requirements and Support of the Elementary Grades .....	43
<b>Chapter IV. Special Education</b>	
Sec. 1 Special Classes .....	46
Sec. 2 Special Schools .....	59
<b>Chapter V. The Summer School</b>	
Sec. 1 Development and Aims .....	65
Sec. 2 Distribution of Costs .....	66
<b>Chapter VI. The Continuation School</b>	
Sec. 1 General Aims .....	68
Sec. 2 Distribution of Costs .....	72
<b>Chapter VII. Secondary or High School Education</b>	
Sec. 1 Aims and Tendencies .....	73
Sec. 2 Growth .....	75
Sec. 3 Distribution of Costs .....	85
Sec. 4 The Rochester Shop School .....	91
<b>Chapter VIII. The City Normal School</b>	
Sec. 1 General Aims .....	94
Sec. 2 Distribution of Costs .....	97
<b>Chapter IX. Adult Education</b>	
Sec. 1 Evening Schools .....	101
Sec. 2 Americanization Classes .....	106

<b>Chapter X. Current Operating Expenditures</b>	<i>Page</i>
Sec. 1 Central Business and Educational Administration	114
Sec. 2 Central Supervision of Instruction	125
Sec. 3 Maintenance and Operation of School Plant	140
Sec. 4 Auxiliary Agencies	151
Sec. 5 Fixed Charges	158
Sec. 6 Capital Outlay Expenditures from Current Expense Fund	163
<b>Chapter XI. Debt Service</b>	167
<b>Chapter XII. School Buildings</b>	
Sec. 1 Elementary School Buildings	173
Sec. 2 Junior High School Buildings	185
Sec. 3 Senior High School Buildings	188
<b>Index</b>	191

## TABLES

Table 1	Salary Schedule for Kindergarten Teachers	11
" 2	Per Capita Distribution Summary	21
" 3	Cost Per Pupil and Total Cost of the Kindergarten and Elementary Grades	22
" 4	Cost of Domestic Science Instruction in the Sixth, Seventh and Eighth Grades	27
" 5	Summary of Special Subject Teacher Salary Costs	27
" 6	Average Number Belonging, Kindergarten, Six Grades, and Special Classes	29
" 7	Summary of Instructional Service Expenditures for the Elementary Schools	32
" 8	Growth in City Population and in Day School Enrollment	33
" 9	Growth in Number Belonging in Elementary Schools, 1912-1923	34
" 10	Membership in the Three Largest Kindergartens	34
" 11	Salary Schedule Changes since 1912	35
" 12	Total Cost of Other Teacher Training	38
" 13	Special Subject Teachers Added since 1912 and the Total Salaries Paid During the Year 1923	39
" 14	Cost Per Pupil for Special Classes, 1923	58
" 15	Cost Per Pupil for Special Schools, 1923	64
" 16	Growth of Secondary Schools and of Secondary School Enrollment, 1890-1920	76
" 17	Average Number Belonging in Senior High Schools, 1870-1923	79
" 18	Senior High School, Per Capita Costs by Subjects, 1923	88
" 19	Tabulation of Teaching Costs for 15 California High Schools Enrolling More Than 1,000 Pupils Each	89

## TABLE OF CONTENTS

5

Table 20	Distribution of Per Capita Cost Between Theory and Practice Departments (City Normal School).....	Page 98
" 21	Comparative Salary Expenditures for the City Normal School, 1912 and 1923.....	98
" 22	Expenditures During the Year 1923 for Central Business and Educational Administration, Itemized by Departments.....	120
" 23	Expenditures for Central Business and Educational Administration Pro Rated for the Elementary Schools, for the Year 1923.....	121
" 24	Comparative Salary Expenditures for Central Business and Educational Administration, 1912 and 1923.....	122
" 25	Relative Salaries of Directing Heads of Central Business and Educational Administration, 1912 and 1923, in Terms of Purchasing Power.....	124
" 26	Distribution of Costs of Central Supervision of Instruction.....	135
" 27	Comparative Salary Expenditures for Central Supervision of Instruction, 1912 and 1923.....	136
" 28	Showing Comparison Between 1912 and 1923 in Staff for Central Supervision of Instruction.....	137
" 29	Growth in Enrollment and in the Number of Teachers Employed.....	137
" 30	Comparison of Salary Increases, 1912 and 1923.....	139
" 31	Amount of Land Used for Each School, Grouped According to Regular Schoolgrounds and Playgrounds.....	141
" 32	Amount of Land in Sites for Future Schools, in Leased Property, etc.....	143
" 33	Summary of Costs for Maintenance of Plant.....	144
" 34	Summary of Costs for Operation of Plant.....	148
" 35	Comparative Expenditure, 1912 and 1923, for Maintaining and Operating all School Buildings.....	149
" 36	Comparison of Cost of Coal in 1912 and in 1923.....	151
" 37	Auxiliary Agencies.....	156
" 38	Comparison Between Expenditures for Auxiliary Agencies for all Schools, 1912 and 1923.....	156
" 39	Buildings Rented by the Board of Education in 1923, and the Rental Cost of Each.....	159
" 40	Payments Made for Fixed Charges from Current Operating Expense Fund, 1923.....	161
" 41	Comparative Expenditures for Fixed Charges, 1912 and 1923.....	161
" 42	Summary of Capital Outlay Expenditures Made from Current Expense Fund for the Year 1923.....	165
" 43	Financial Summary, 1923.....	171

## CHARTS

Chart I	Time Schedule.....	14
" II	Per Capita Distribution Summary.....	22

	<i>Page</i>
Chart III Cost per Pupil in Kindergartens and Elementary Grades...	22
“ IV Summary of Special Subject Teacher Salary Costs.....	28
“ V Summary of Instructional Service Expenditures for the Elementary Schools.....	31
“ VI Growth in City Population and in Day School Enrollment..	33
“ VII Summary—Per Capita Expenditures for Special Classes...	58
“ VIII Cost per Pupil for Special Schools.....	64
“ IX Average Number Belonging in Senior High Schools—1870 to 1923.....	80
“ X Senior High Schools—Per Capita Costs by Subjects.....	87
“ XI Comparative Expenditure 1912 and 1923 for Maintaining and Operating all School Buildings.....	150
“ XII Comparison Between Expenditures for Auxiliary Agencies for all Schools—1912 and 1923.....	157
“ XIII Comparative Expenditures for Fixed Charges 1912 and 1923.....	162
“ XIV Financial Summary.....	172

## ILLUSTRATIONS

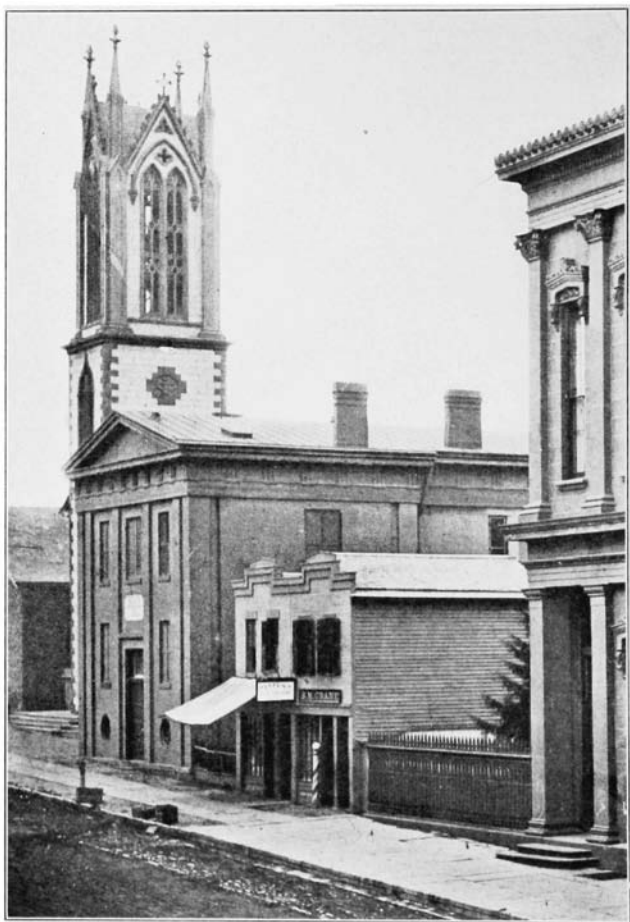
The First Free Public High School in Rochester.....	8
Kindergarten—Nathaniel Rochester School No. 3.....	10
Reading Class—No. 14 School.....	16
Auditorium Gymnasium Class—Jonathan Child School No. 21.....	18
Geography Class—Samuel A. Lattimore School No. 11.....	19
Music Appreciation Class—Susan B. Anthony School No. 27.....	21
The Visiting Teacher.....	30
Nutrition Class—Central School No. 5.....	40
Violin Class—Andrews School No. 9.....	41
Special Class Girls, Domestic Science—Concord School No. 18.....	49
Children Representing Twenty-nine Nationalities—Andrews School No. 9.....	51
Class of Crippled Children—Central School No. 5.....	53
Class at the Rochester General Hospital.....	56
Mill Room—Boys' Pre-Vocational School.....	61
Edward Mott Moore Open Air School.....	62
Office Appliance Class—Continuation School.....	70
Bricklaying Class—Continuation School.....	71
First High School in Rochester (Private).....	77
Rochester Free Academy.....	78
East High School.....	81
Chemistry Laboratory—East High School.....	90
Rochester City Normal School.....	94
Observation Methods Class—City Normal School.....	99
Class in Electricity—Washington Junior High Evening School.....	103
Plain Sewing—Washington Junior High Evening School.....	104
English to Foreign, Home Class.....	109

# TABLE OF CONTENTS

7

	<i>Page</i>
Naturalization Court.....	111
Martin B. Anderson School No. 1—One-story Building.....	176
Sylvanus A. Ellis School No. 26—Two-story Building.....	177
Nathaniel Rochester School No. 3—Three-story Building.....	181
Andrew J. Townson School No. 39—South Elevation.....	182
Andrew J. Townson School No. 39—East and West Elevations.....	182
Andrew J. Townsnn School No. 39—First Floor Plan.....	183
Andrew J. Townson School No. 39—Second Floor Plan.....	184
Andrew J. Townson School No. 39—Plan for Future Additions.....	185
Madison Junior High School.....	186
West High School.....	189





First Free Public High School—1857. (See page 77)

# CHAPTER I

## THE KINDERGARTEN

### SECTION 1

#### PURPOSE AND COST

##### Introductory Questions

1. What is the kindergarten attempting to do?
2. What was the average per capita cost for each child actively belonging in the kindergarten for the calendar year 1923?

**Introductory Statement.** Kindergartens were first established as an integral part of the public school system of Rochester in 1888. There are now forty-three elementary schools in the city and with but one exception kindergartens are provided in all.

**The Work of the Kindergarten.** The outstanding aim of the kindergarten, and the one in terms of which its successes and failures are to be interpreted, is to begin and effectively to continue such self-disciplines as co-operation, respect for order, and consideration for the rights of others. It is here that the child first begins to play the game of democracy by coming to know, to understand, and sympathetically to associate with, those outside of his own family group.

For the large numbers of children who come from the homes of the foreign born, the kindergarten gives that elementary control of the English language which is so essential to the work of the primary grades. Through its games, nursery rhymes, simple stories, and the like, it gives to all a background of experience which lays the foundation for the more formal work of reading and numbers which follow later. Its activities in sense training and health studies make it serve as a clearing house for the early detection and correction of those limitations which often have so pronounced a bearing upon the later school life of the child.

**The Cost of the Kindergarten.** If the actual amount of money paid out for kindergartens by the Board of Education during the calendar year 1923, regardless of the source from which that money was derived, be divided among the average number of children actually belonging in the kindergarten each day throughout the year and so subject to attendance, the cost for each child would be \$89.06. The average number of children belonging in the kindergarten during the year was 4646 and hence the total cost was \$413,773.62. If this kindergarten per capita cost of \$89.06 be distributed as indicated on page 2, the result will be as follows:

**The Kindergarten—1923**

	Cost per Pupil	Total
Instructional Service	\$53.54	\$248,755.01
Other Current Operating Expenses	23.76	110,389.07
Debt Service	11.76	54,629.54
	<u>\$89.06</u>	<u>\$413,773.62</u>



Kindergarten—Nathaniel Rochester School No. 3

**SECTION 2**  
**INCREASED EXPENDITURES**  
**Introductory Questions**

1. How did the average annual salary of the kindergarten teacher in 1923 compare with the average annual salary in 1912?
2. What factors are responsible for this increase?
3. How far does the organization of the kindergarten admit of changes through which economies might be effected?
4. What is the relation of the State to the establishment and support of kindergartens?

**Increased Salary Schedules.** The following table shows the salary schedule that prevailed in 1912 and the subsequent changes:

**TABLE 1**  
**Salary Schedule for Kindergarten Teachers**

Years	Initial Salary		Annual Increment		Maximum Salary	
	Directors	Assistants	Directors	Assistants	Directors	Assistants
1912	\$ 500	\$ 500	\$ 50	\$ 50	\$ 800	\$ 750
1918	600	600	50	50	1250	1200
1919	800	800	100	100	1650-1700	1600
1920	1200	1200	100	100	2050-2100	2000
1923	1200	1200	100	100	2050-2100	2000

Until 1919 all salary schedules for the public school system were determined by local school authorities. In 1919, however, a state-wide salary schedule was adopted by the Legislature. The salary schedule shown in the above table, as well as the change subsequently made, is in accordance with the provisions of this State Law.

In evaluating this factor of increased salary schedules it is necessary to determine the average annual salary in the kindergarten in 1912 as compared with the average annual salary in 1923. This necessity is apparent from the fact that during each year there were teachers at each salary level between the minimum and the maximum.

The comparative facts in this regard are as follows:

Average Annual Salary, 1923	\$1,728.85
Average Annual Salary, 1912	738.32
Increased Average Annual Salary for 1923	990.53
Per Cent Increase of 1923 over 1912	134.2%

**Factors Responsible for Increased Expenditure.** This increase of \$990.53 or 134.2% in the average annual salary in the kindergarten during this period, is adequately accounted for by two factors:

1. The depreciation of the dollar;
2. The increased training required.

**Depreciation of the Dollar.** According to the index figures on the cost of living, of the United States Department of Labor, this cost had risen in 1923 about 70% above the cost in 1912. Accepting 170 as the index for 1923, the actual purchasing power of the average annual salary for 1923 (\$1,728.85) was equal to a salary of \$1,016.61 in 1912. This of course means that the purchasing power of the average salary of 1923 was only \$278.61 higher than the purchasing power of the actual average salary of 1912, which was \$738.00.

**Increased Training.** In 1912, but one year of training beyond the high school was required for appointment to the kindergarten teaching positions in Rochester. At the present time, no person is eligible for appointment to a kindergarten position who is not a graduate of an approved normal school after a course of study therein of at least two years. On the average, there-

fore, Rochester is paying its kindergarten teachers \$278.61 more in 1923 than it was in 1912 for the additional year of teacher training required.

**The Organization of the Kindergarten.** Children are admitted to the kindergarten at the age of four and advanced to the first grade at the age of six, unless special maturity warrants such action earlier. The standard type of kindergarten is in charge of a director and one assistant. Both teach full time. In two cases the kindergarten is so small that one person only is employed. In some of the very large kindergartens the director spends one-half of her time in supervision and the remaining half in teaching. It is, therefore, apparent that economies cannot be effected in the matter of supervision, since in all but six schools the directing head is also a full time teacher. Kindergarten children have half day sessions only. A teacher, accordingly, has one group of children in the morning and another group in the afternoon. Each kindergarten teacher is supposed to have about twenty children in each group, or an average in daily attendance of forty children. In the last analysis, therefore, the only way of effecting any significant economies in the kindergarten organization is to increase the number of children assigned to each teacher. This is a most undesirable thing to do if any regard is to be had for right working conditions.

**The State and the Kindergarten.** The kindergarten is not required by the State. In case a kindergarten is maintained, the State makes mandatory the salary schedule stated in Table 1. For each regularly licensed teacher in the kindergarten, the State pays \$650.00 annually. All expenses beyond this amount are borne by the local community.

## CHAPTER II

### PRIMARY OR ELEMENTARY EDUCATION

#### SECTION 1

#### GENERAL AIMS

##### Introductory Questions

1. Of what grades does the elementary school consist?
2. What, briefly, are the fundamental aims of these elementary grades?
3. To what extent is it possible to distribute costs among these aims?
4. How is the time in each grade divided among the four chief objectives?

**Preliminary Statement.** The Elementary School Unit in Rochester strictly consists of the kindergarten and the first six grades. Until the Junior High School Unit is extended to all parts of the city, however, there will be elementary schools that will consist of the kindergarten and the first eight grades. The costs discussed in this chapter are for all elementary schools whether they consist of six or eight grades.

The division of expenditures under each of the four aims given for the elementary grades is the same as the division for the kindergarten in the preceding chapter. Since the primary purpose here is to make clear the reasons for the expenditures of the elementary school, it has obviously been necessary to formulate the aims of this school in terms that admit of a cost analysis.

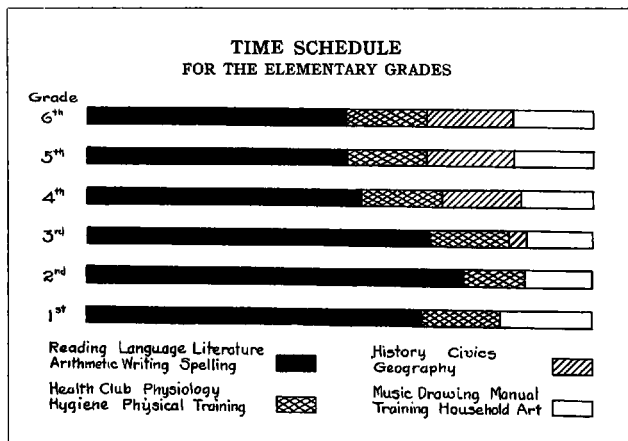
**General Statement.** The first limitation to be faced in any attempt to present a convincing analysis of school costs results from the fact that we do not know and never can know what our investments in public education are in terms of what are recognized to be the ultimately great ends. Few, if any, will dissent from that conception of public education in this country which emphasizes the development of character qualities as the ultimate goal. And by character qualities is meant those qualities of the physical, intellectual, and moral life that are recognized to be essential to good citizenship.

Our experiment in government is not primarily an experiment in political democracy. That may be found elsewhere. The genius of our attempt in this country is to realize, in so far as possible, a democracy in which equality of opportunity shall be the chief characteristic. The realization of this ideal demands the exercise of these character qualities in all relations of life to an extent not even yet remotely appreciated by us, so far as our actual

working policies are concerned. To declare, then, that we do not know and never can know what our investments in public education are in terms of these ultimately great ends, is simply to recognize that we can never distribute school costs in any unit of school organization in such a way as to determine what it costs to develop such qualities as initiative, industry, a sense of fair play, loyalty, and the like. The development of these qualities for each child, so far as the school is concerned, is determined by the methods and processes of the teacher, and the personality that gives to them life and meaning.

But to recognize this limitation is by no means to admit that we cannot distribute our costs among certain very definite and immediate objectives which must be attained if these character qualities are to be developed. Knowledge is not secured, intellectual power is not developed, bodily health is not guaranteed, moral fibre is not strengthened, and one's social and civic obligations are not clarified through abstract disciplinary processes alone. Whenever these great qualities are found in any individual they are the result of genuine personal application to the clearly presented and specific problems of life. They have come because the individual has faced and successfully performed the definite tasks set before him by the environment in which he has lived. The public school is but one factor in this environment, but it is the one agency that has been deliberately established for the purpose of guaranteeing that no child shall escape this personal application to a certain range of concrete tasks, upon the performance

CHART I



of which depend those things that are believed to be essential to our individual and collective welfare.

Now we know very definitely what these concrete tasks of the school room are because the primary purpose of the curriculum in any unit of school organization is to afford the material from which such tasks are to be selected. Furthermore, there would be quite general agreement as to the practicability of grouping the various subjects and activities of the curriculum with reference to their bearing upon the various types of tasks to be performed. This grouping and the time allotment for each group enable us to determine with sufficient accuracy for all practical purposes, an interesting and valuable cost distribution of the unit concerned.

The work of the elementary school grades may be divided into four groups. Section 2 of this chapter will be devoted to a presentation of these groups, a statement of the cost of each group for the year 1923, and a brief reference to what the teaching of these groups is supposed to mean to the common welfare. Those who are interested in knowing how the time in each grade of the elementary school is divided among the four subject groups that follow will find Chart I on page 14 of value.

At present the length of the elementary school day is five and one-half hours.

## SECTION 2

### SPECIFIC AIMS AND COSTS

#### Introductory Questions

1. What are the aims and the cost of providing instruction in reading, writing, and arithmetic?
2. What are the aims and the cost of providing instruction in health education?
3. What are the aims and the cost of providing instruction in history, geography, and social-civics?
4. What are the aims and the cost of providing instruction in the fine and practical arts, i. e., music, drawing, manual and household arts?

**The elementary school grades should advance the child, although by no means perfect him, in his ability to read, to write, and to speak correctly the English language, and to know and to use intelligently the elementary processes of arithmetic.**

Even the most critical would admit that with any normal child the public school will not only guarantee literacy during this elementary school period but it will have started the individual well along the way of securing the larger cultural returns that this power of literacy makes possible. Furthermore, during this same period the public school aims to guarantee that knowledge and control of the simple elementary processes of arithmetic that are sufficient to meet the common, every day demands of life.



Illiteracy has come to be recognized by commerce and industry as a weakening factor in the working capacity of those concerned. Industry and commerce, accordingly, know the costs of illiteracy. And the country at large through the recent war came to know the inefficiency and the danger that result from illiteracy. How much then do we pay on the average for each child for protecting the community and the nation against illiteracy and for giving this knowledge and control of the elementary processes of arithmetic?

### Reading, Writing, and Arithmetic—1923

	Cost per Pupil	Total
Instructional Service	\$34.84	\$ 941,610.54
Other Current Operating Expenses	19.55	528,239.04
Debt Service	8.77	237,136.35
	\$63.16	\$1,706,985.93

During this same year the number of children to be found each day, on the average, actually belonging in these elementary grades and in attendance, except as illness and other causes prevented, was 27,025. It follows, accordingly, that the total expenditures for the year for this first objective of the elementary school amounted to \$1,706,985.93.



Reading Class—No. 14 School

**The elementary school grades should advance the child in his ability to know and to observe the laws of physical health and well being, and to appreciate the meaning of life and of nature.**

The public school that is at all adequately equipped for work in health education is today attempting to give to every normal child a knowledge of the elementary but fundamental laws of hygiene, upon the observance of which good health depends, and to go as far as possible in the way of establishing habits in the observance of these laws as they apply to such simple and commonly ignored essentials as rest, fresh air, exercise, the use of proper foods, and the like. In other words, health education in the public school of today is actually influencing physical conduct. It will guarantee to start the individual pupil well along the road that, if continued, will guarantee a healthy body of citizens for the country. Furthermore, it is increasingly detecting the case that would otherwise be neglected and eventually result in a citizenship liability, and through simple remedial measures, taken in time, it is changing that potential liability into an asset.

Another cause than illiteracy of the weakened man power of this country during the war days when our maximum strength was required, was avoidable ill health. It was avoidable in the sense that the ill health revealed could doubtless have been prevented in large measure had there been in the years preceding anything like an intelligent and systematic common attempt to apply the comparatively simple and inexpensive preventive measures available.

And what is the gross amount that Rochester is paying for each child, on the average, for an entire year for the purpose of safe-guarding the physical welfare of the children in the elementary school and thereby contributing to sounder physical health in our citizenship?

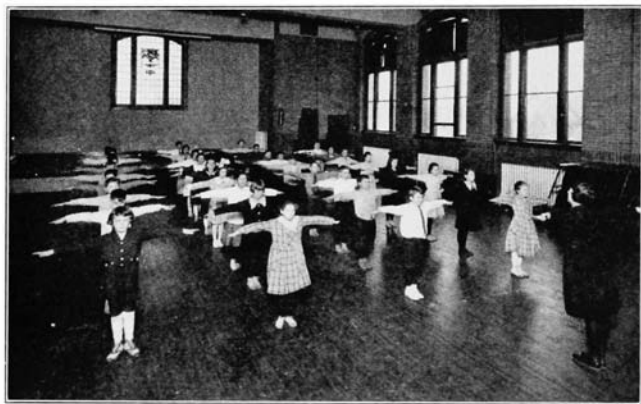
#### Health Education—1923

	Cost per Pupil	Total
Instructional Service	\$11.47	\$309,918.98
Other Current Operating Expenses	4.90	132,343.48
Debt Service	2.19	59,411.45
	<hr/> \$18.56	<hr/> \$501,673.91

During this same year the number of children to be found each day, on the average, actually belonging in these elementary grades and in attendance, except as illness and other causes prevented, was 27,025. It follows, accordingly, that the total expenditures for the year for this second objective of the elementary school, amounted to \$501,673.91.

**The elementary school should advance the child in his ability to know and to appreciate the geography and the history of his own community, state and nation; to sense his share in the social, civic, and industrial order of such a democracy as ours; and to meet to the full the obligations**

which such knowledge and appreciation should engender, to the end that justice, sympathy, and loyalty may characterize his personal and community life.



Auditorium Gymnasium Class—Jonathan Child School No. 21

With all the abuse to which the word "Americanism" has been subjected, it, nevertheless, does represent a fairly definite idea in our thinking. Its very essence is to be found in a sympathy with the great policy of the "square deal" for which this country long ago declared itself. No sane person would claim that in these elementary school grades there can be gained any extensive knowledge of these formal studies that contribute to the development of such a sympathy. But no person can be at all familiar with the public school of today, that is receiving sufficient support to command the services of adequately equipped teachers, and yet fail to recognize that the influence of such a school is setting the faces of our boys and girls hopefully and confidently toward the ideals of this Republic. Those faces may later be turned away from the goal by the forces outside and beyond the control of the school and the sooner the child is taken from the influence of the school the greater the chance of his turning away will necessarily be.

And what was the gross expenditure for each child, on the average, for an entire year for this attempt to give an elementary knowledge of the geography and the history of our country, primarily to the end that the ideals of the Republic may be understood and appreciated?

## Geography, History and Civics—1923

	Cost per Pupil	Total
Instructional Service	\$ 5.14	\$138,978.41
Other Current Operating Expenses	2.89	77,956.94
Debt Service	1.29	34,996.33
	<u>\$9.32</u>	<u>\$251,931.68</u>

During this same year the number of children to be found, on the average, actually belonging in these elementary grades and in attendance except as illness and other causes prevented, was 27,025. It follows, accordingly, that the total expenditures for the year for this third objective of the elementary school, amounted to \$251,931.68.



Geography Class—Samuel A. Lattimore School No. 11

The elementary school should advance the child in his ability to share intelligently and appreciatively in the fine and the useful arts through the pursuit of music, drawing, and literature; of manual training and the household arts as they are related to the three great universal needs of food, clothing and shelter.

These fine and practical arts of the elementary school are taught during the early school life of the child with no primary reference to any bearing that they may have upon later life careers. They do gratify the universal desire for the use of the human hand and thereby serve as one very valuable medium for the expression of ideas and ideals; they enable the school to interpret great phases of our community life in a more vital way than would be possible without their aid; they present approaches to a wholesome use of the leisure hours that are increasingly filling human life; they provide for that systematic co-ordination of hand and mind which makes for the most favorable development of child life; and they do develop certain skills that may have a later bearing upon vocational careers. All these are primarily features of general education.

But out of these groups of pupils who pursue these arts in the elementary school will come musicians and other artists, draftsmen and other artisans, as well as those who are to meet the business and professional demands of community life.

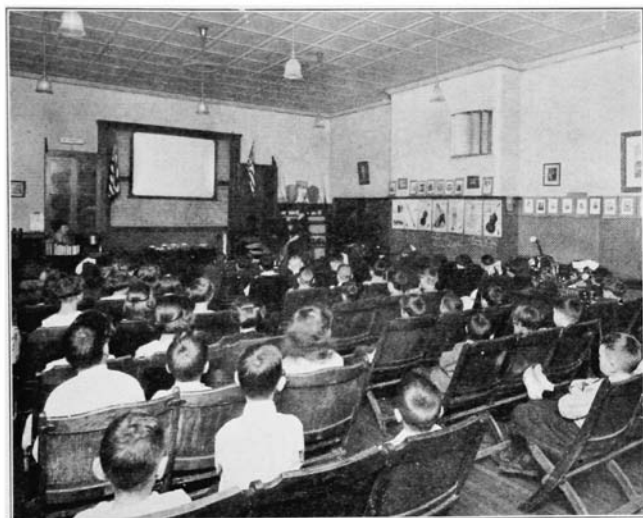
As the elementary school, therefore, advances the child in his ability to share intelligently and appreciatively in the fine and the useful arts, it is not simply recognizing the general soundness of the principle that education can no more neglect the hand than it can the heart and the head; but it is giving to the child one of the most wholesome means of a satisfactory use of the leisure hours and, at the same time, leading many a young citizen no inconsiderable distance along that road that must be traveled by him who, through the field of the fine and the practical arts, is to gain his own economic independence and contribute one of the elements indispensable to the common welfare. And what were the total expenditures for each child, on the average, during an entire year for this purpose of the elementary grades?

#### The Fine and Practical Arts—1923

	Cost per Pupil	Total
Instructional Service	\$14.58	\$394,094.72
Other Current Operating Expenses	4.98	134,438.62
Debt Service	2.23	60,352.01
	<hr/> \$21.79	<hr/> \$588,885.35

During this same year the number of children to be found, on the average, actually belonging in these elementary grades and in attendance except as illness and other causes prevented, was 27,025. It follows, accordingly, that the total expenditures for the year for this fourth objective of the elementary school, amounted to \$588,885.35.

Here, then, is our common foundation. It is comprehensive enough to include the tools of language and number; a trained mind and a sound body for use in life's activities; a moral nature appealed to and thereby stimulated and made intelligent with reference to the great social and civic obligations; the aesthetic life awakened; the universal craving for the use of the human hand gratified, and its indispensable contribution to the arts



Music Appreciation Class—Susan B. Anthony School No. 27

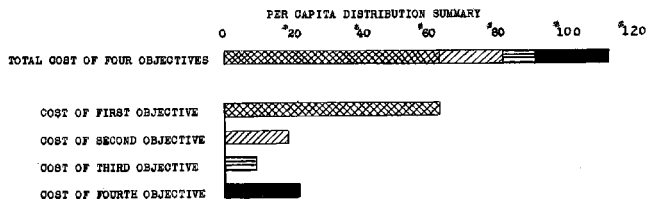
and industries of life recognized. It is an ideal and yet there is not a single element with which any one of us would be willing to dispense in the education of our own children. It touches simply the latent possibilities of a human being. For the public school to allow any one of these to remain latent is to deprive the individual of opportunities to develop such qualities and interests, and to ignore the larger life of the community.

The cost figures given in the preceding analyses may be summarized as follows:

**TABLE 2**  
**Per Capita Distribution Summary**

Objective	Instructional Service	Other Current Operating Expenses	Debt Service	Total
<b>First</b> (Reading, Writing, Arithmetic, etc.)	\$34.84	\$19.55	\$ 8.78	\$ 63.16
<b>Second</b> (Health)	11.47	4.90	2.20	18.56
<b>Third</b> (Social Studies)	5.14	2.88	1.29	9.32
<b>Fourth</b> (The Arts)	14.58	4.97	2.23	21.79
	<u>\$66.03</u>	<u>\$32.30</u>	<u>\$14.50</u>	<u>\$112.83</u>

CHART II



## FINANCIAL SUMMARY

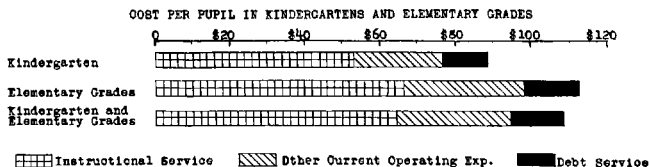
The cost figures given in the preceding analyses, both for the kindergarten and for the elementary grades, may be summarized as follows:

TABLE 3

## Cost Per Pupil and Total Cost of the Kindergarten and Elementary Grades

	Kindergarten		Elementary Grades		Total	
Number of Pupils Belonging	4,646		27,025		31,671	
	Total	Cost per Pupil	Total	Cost per Pupil	Total	Cost per Pupil
Instructional Service	\$248,755.01	\$53.54	\$1,784,602.65	\$ 66.03	\$2,033,357.66	\$ 64.20
Other Current Operating Expenses	110,389.07	23.76	872,978.08	32.30	983,367.15	31.10
Debt Service	54,629.54	11.76	391,896.14	14.50	446,525.68	14.05
	<u>\$413,773.62</u>	<u>\$89.06</u>	<u>\$3,049,476.87</u>	<u>\$112.83</u>	<u>\$3,463,250.49</u>	<u>\$109.35</u>

CHART III



## CHAPTER III

### ELEMENTARY GRADE INSTRUCTIONAL COSTS

#### SECTION 1

#### DISTRIBUTION OF INSTRUCTIONAL SERVICE COSTS

##### Introductory Questions

1. What is included under Class Room Instruction, and Administration and Supervision?
2. What is the distinction between the regular grade teacher and the special subject teacher?
3. How were the special subject teachers distributed as to grade and subject during the year 1923?
4. What were the per capita and aggregate expenditures for special subject teachers during the year, and how were these expenditures distributed among the grades and subjects?
5. How far are special subject teachers optional with the Board of Education?
6. What were the expenditures for regular grade teachers during the year, and how did these expenditures compare with the expenditures for special subject teachers?
7. How far were the expenditures for class room service required by State Law, and how far were they optional with the local Board?
8. What were the various lines of administrative and supervisory service in the elementary schools themselves during the year?
9. What was the function of each and what the cost?

**Introductory Statement.** The chief purpose of this section is to show the grades in which special subject teachers are employed; the lines of work which they teach; the itemized and aggregate cost of all *special subject* teachers; and salary expenditures for administration and supervision within the school.

From the summary given at the close of the preceding chapter, it is clear that a total of \$2,033,357.66, or 58.7% of all the expenditures for the *Elementary School Unit*, was spent for "Instructional Service" within the school. That is to say, this amount was spent during the calendar year, within the elementary schools (as opposed to the Central Office) for:



**Class Room Instruction**

1. Regular Grade Teachers
2. Special Subject Teachers

**Administration and Supervision**

1. Principals of Elementary Schools
2. Clerical Assistants
3. Visiting Teachers
4. Supervisors within the Elementary Schools but not supervisors that form a part of the Central Office staff.

It is now proposed to distribute this amount among the different types of service rendered within the school for the purpose of ascertaining relative expenditures.

**Class Room Instruction.** The *regular grade* teacher is the teacher regularly in charge of the room to which the pupil reports and in which the pupil spends the major part of the school day. It naturally follows that the dropping of a subject or an activity from the curriculum, in so far as this subject is taught by the regular grade teacher, cannot result in any financial economy so far as teachers' salaries are concerned. It may well be that a given subject taught by the regular grade teacher should be discontinued in the interest of educational economy. In such a case the teacher would be free to divide her time among fewer subjects. If, therefore, time were the only factor involved she should be able to teach these subjects more effectively. This, however, is economy in the interest of education rather than in the interest of finance.

The *special subject* teacher, on the other hand, is the teacher employed in addition to the regular grade teacher primarily in order that the special subject concerned may be taught more effectively because taught by a specially trained teacher. The case of music is a good illustration. Few people today doubt the importance of teaching vocal music to children in the elementary school. Furthermore, most people have come to believe that if music is to be taught in the elementary school it should be taught by specially gifted and trained teachers rather than by teachers whose abilities and training lie rather in the other subjects of the elementary school field. Whenever a special subject teacher is added, therefore, an added expense is involved.

**The First and Second Grades.** As a general principle, *special subject teachers* are not employed in the first grade. If, therefore, drawing or music or any other subject were taken from the first grade, no money would be saved in teachers' salaries. The *regular grade teacher* would simply divide the time saved among the other subjects and activities. The following minor exceptions should be stated in this connection.

**Health Education.** Special subject teachers in this subject, in connection with their regular work in the upper grades, spend some time in teaching simple rhythmic exercises to the first and second grade children. The total amount spent for this purpose during the year 1923 was as follows:

First Grade	\$ 964.37
Second Grade	<u>2,254.87</u>
	\$3,219.24

**Vocal Music.** In certain schools, part of the vocal music in these grades is taught by the special subject teachers of music in the upper grades. The total amount spent during the year 1923 for this purpose was as follows:

First Grade	\$1,209.25
Second Grade	<u>3,245.41</u>
	\$4,454.66

Certain regular class room teachers of unusual ability and experience are from time to time taken from their grades temporarily to assist other first and second grade teachers to a better understanding of the content and methods in the reading and arithmetic work of these grades. This plan was originally adopted as a means of familiarizing the teachers as quickly as possible with changes that were made in the course of study. The necessity of making such an adjustment as quickly and effectively as possible, is apparent.

Teachers who are assigned to this work are here classed as special subject teachers, since they are more nearly classified under class room teachers than under the head of members of the Central Supervisory staff, but their compensation has been included in the salaries of the staff of the Department of Elementary Grades and Kindergartens, Page 135.

**The Third Grade.** Beginning with the third grade, special subject teachers of health education are required in accordance with the law passed by the State Legislature in 1918. The total amount spent for such teachers in the third grades of the city during the calendar year 1923 was \$9,699.07, and the cost per pupil amounted to \$2.23.

**The Fourth Grade.** In the fourth grade the special subject teachers of health education are continued under State Law. In 1920 the Board of Education, of its own volition, established the principle of special subject teachers of music in the elementary schools, beginning with the fourth grade, by the assignment of such teachers to five schools. That number has since been extended until at the close of the calendar year 1923 these special subject teachers of music were found in twenty-one out of the total number of forty-three elementary schools.

Since these special subject teachers of music are optional with the Board of Education it is legally possible to disregard the educational advantages, eliminate these teachers, and thereby save in salaries. The total amount paid for special subject teachers of vocal music for the year 1923 was \$10,117.99. If this amount be divided among the 4024 children that made up the membership of the fourth grades during the same period, it will show a per capita cost for each fourth grade child for the year of \$2.51.

The Board of Education believes that both the increased demands made upon the regular grade teacher, as well as the importance, particularly in

the City of Rochester today, of having children taught music by teachers of special ability and training, necessitate the extension of these provisions for such teachers as rapidly as funds can be provided.

During the same year the amount spent for the special subject teachers of health education required in this grade was \$15,711.74. The cost per pupil was \$3.90.

**The Fifth Grade.** Special subject teachers of health education are continued in this grade in accordance with the State Law, while special subject teachers in vocal music are continued at the option of the Board of Education.

Here, for the first time, girls begin the work of sewing and boys begin bench work in wood. The sewing is taught by the regular grade teacher but the manual training for the boys requires special subject teachers. Such special subject teachers of manual training are used in practically all city school systems today. They have been employed in Rochester since 1901. Under the present plans of the Board of Education, these special subject teachers of manual training in the fifth and sixth grades are to be gradually eliminated in those sections of the city that are under the Junior High School organization.

The special subject teachers employed in the fifth grade during the year 1923 were paid in salaries as follows:

Subject	Cost per Pupil	Total
Health Education	\$ 3.65	\$ 13,468.19
Vocal Music	2.91	10,734.23
Manual Training	4.10	15,145.00
	<hr/> \$10.66	<hr/> \$39,347.42

These special subject teachers of manual training are optional with the Board of Education and it would, therefore, be legally possible to eliminate them and save in teachers' salaries accordingly. The cost of these special subject teachers in manual training for each fifth grade child for the year 1923 amounted to \$4.10, while the cost of special subject teachers in vocal music in this grade amounted to \$2.91.

**The Sixth, Seventh, and Eighth Grades.** Special subject teachers in health education are continued under the State Law and special subject teachers of music and of manual training are continued at the discretion of local authorities.

In these grades cooking and sewing are taught the girls in alternate semesters. The sewing continues to be taught by the regular grade teacher, while the cooking requires the special subject teacher.

Until 1909 the upper grade girls of the grammar schools went to the Mechanics Institute for instruction in cooking. This instruction was given free of charge through the generosity of Captain Henry Lomb. In the year 1909 the Board of Education established certain domestic science centers in the public schools and at these centers cooking was taught by the teachers in training at the Mechanics Institute at no salary expense to the Board

of Education. As time went on the belief increased that fully trained and as far as possible experienced teachers should be provided for this work and since 1910 such teachers have been employed by the Board of Education.

Special subject teachers of cooking are likewise optional with the Board of Education. The total salaries paid for instruction in cooking or domestic science during the year 1923 amounted to \$23,650.80. Of this amount \$1,854.27 should be apportioned to the fourth and fifth grades where the instruction is only incidental.

TABLE 4

## Cost of Domestic Science Instruction

(In the Sixth, Seventh and Eighth Grades Only)

Subject	Cost per Pupil	Total
Sixth Grade	\$3.68	\$11,903.09
Seventh Grade	3.41	5,089.84
Eighth Grade	5.25	4,803.60
No. of Pupils Reg'd. . . . . 5,645	\$3.86	\$21,796.53

There are two other classes of special subject teachers that are optional with the Board of Education. These, together with the amount spent for each during the year 1923, were as follows:

Nutrition Class Teachers	\$10,093.50
Teachers of Instrumental Music	3,749.85

TABLE 5

## Summary of Special Subject Teacher Salary Costs

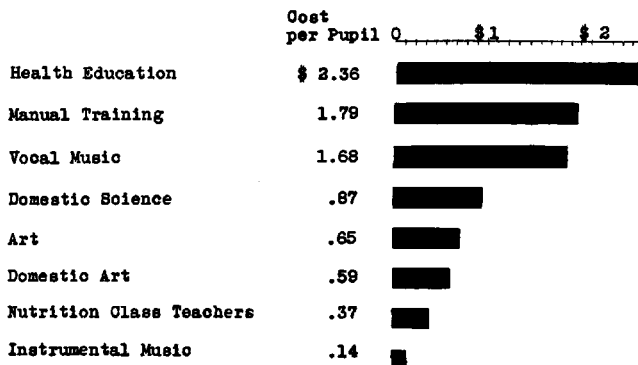
Subject	Cost per Pupil	Total
Health Education	\$2.36	\$ 63,864.64
Nutrition Class Teachers	.37	10,093.50
Vocal Music	1.68	45,309.93
Instrumental Music	.14	3,749.85
Manual Training	1.79	48,271.56
Domestic Art	.59	15,978.50
Domestic Science	.87	23,650.80
Art	.65	17,539.83
	\$8.45	\$228,458.61

Of the above expenditures, all but those for health education are optional with the Board of Education.

**General Summary.** The total amount paid for salaries for class room instruction, during the calendar year 1923, in the elementary schools, was \$1,587,511.24. This amount may now be distributed as follows:

Regular Grade Teachers Required by the State	\$1,359,052.63
Special Subject Teachers Required by the State	63,864.64
Special Subject Teachers not Required by State	164,593.97
	<u>\$1,587,511.24</u>

CHART IV  
SUMMARY OF SPECIAL SUBJECT TEACHER SALARY COSTS



**State Requirements.** The total salaries paid during the calendar year 1923, for all regular elementary grade teachers and for all special subject teachers required under the State Law, amounted to \$1,422,917.27, while the total salaries paid during the same period for all special subject teachers that were optional with the Board of Education, amounted to \$164,593.97. This, accordingly, meant a total expenditure for salaries of \$1,587,511.24.

The primary object of the distribution given in this section is to show the extent to which the lines of service rendered were required by the State, and consequently the extent to which the salary expenditures are required. The distribution, accordingly, shows that of the total amount, \$1,587,511.24, spent for salaries for class room instruction during the year, \$1,422,917.27 or 89.6% was required by the State and \$164,593.97 or 10.4% was optional with the local Board.

**Administration and Supervision.** In addition to salaries for class room instruction in the Elementary School Unit, salary expenditures for professional and closely allied lines of service were made as follows:

1. Salaries for principals of the elementary schools.
2. Salaries for supervisors within the individual school but not supervisors that form a part of the central office staff.
3. Salaries for visiting teachers.
4. Salaries for office or clerical assistants.

**Principals.** The State Law does not specifically require that the Board of Education shall place a principal in charge of a school. The Law does require that there shall be a school, however, and it follows as a matter of course

that some one must be placed in charge of it. Neither does the State Law fix the minimum salary, the annual increment, and the maximum salary of an elementary school principal as it does fix the minimum salary, annual increment, and maximum salary of the elementary school teacher. The Board of Education believes that the position of principal in the elementary school today is one that requires the best ability, character, training and experience available. The schedule stated represents, according to the best judgment of the Board of Education, what the law of supply and demand requires if such talent is to be secured. It sees no course, therefore, other than to regard these expenditures as coming under the expenditures required by State Law.

The total salary expenditures for elementary school principals, for the calendar year 1923, amounted to \$127,050.20.

**Salaries of Supervisors Within the Elementary School Unit.** In five of the largest schools in the city there is a full time assistant to the principal. These schools are as follows:

Andrews School, No. 9,  
Whitney School, No. 17,  
Concord School, No. 18,  
Silvanus A. Ellis School, No. 26,  
Susan B. Anthony School, No. 27.

These persons have for the most part been selected from the class rooms of the schools concerned because of their wide experience and conspicuous ability and because of the confidence that other teachers have in them. They are placed in these schools solely for the purpose of spending their entire time counseling with teachers and thereby giving the kind of intelligent and constructive supervision that is absolutely essential in any well ordered school. The schools in which these persons are placed are so large and the administrative demands upon the principals are so great that no way other than that of assigning these assistants has as yet been found for securing the required supervision.

To afford some basis for a judgment with reference to the validity of these expenditures in 1923, the following table is presented, showing the enrollment in each of these schools for the years 1912 and 1923:

TABLE 6  
Average Number Belonging in the Kindergarten, Six  
Grades, and Special Classes

School	1912 Enrollment	1923 Enrollment
Andrews School, No. 9	1,311	1,572
Whitney School, No. 17	622	1,436
Concord School, No. 18	1,066	2,121
Silvanus A. Ellis School, No. 26	1,561	1,526
Susan B. Anthony School, No. 27	949	1,875
Total Enrollment	5,509	8,530
Increased Enrollment		3,021

The total expenditures for these supervisors within the school, during the calendar year 1923, amounted to \$11,449.00. In the remaining elementary schools the amount paid for principals' assistants was \$14,822.00.

**Salaries for Visiting Teachers.** In September, 1920, the Board of Education established the position of visiting teacher by the selection of one person for the Central Office. Since then the visiting teacher plan has been extended by the assignment of a visiting teacher to each of twelve schools.

The school is held responsible for the progress of the individual child. A child is often retarded through causes that lie entirely outside of the school. The object of the visiting teacher is to find out what these causes are by actually visiting the home and consulting with parents wholly in the interest of school progress. These visiting teachers do not take the place of regular attendance officers in the school district to which they are assigned. When a case has exhausted the resources of the visiting teacher and it consequently becomes necessary to take the parent into court then the attendance officer enters.



The Visiting Teacher

The total expenditures for visiting teachers for the year 1923 amounted to \$17,581.00.

**The Salaries of Office Assistants.** The Board of Education has assigned office assistants in the elementary schools on the same principle that a sound business firm assigns clerical assistants. That principle is to avoid having relatively high salaried executives neglect other important matters by spending their time on purely clerical work that might be done by a relatively inexpensive clerical assistant. The principal of a school is the counsellor with parents, teachers, and children, and the educational director immediately in charge of every activity in the school. He cannot meet these obligations in the city school of today and at the same time do all the clerical and other work involved in the increasing number of reports and interruptions that come from local, state, and national sources.

For some time now it has been the policy of the Board of Education to assign as office assistants the inexperienced graduates of the City Normal School. It was believed that these young women could give greatly needed clerical assistance, fill temporary teaching vacancies that might arise within the school, and at the same time gain a type of experience that would be very valuable to them later on. This plan was established some seven or eight years ago. It was a step in the right direction. The Board believes, however, that the time has come when the increased demands upon the time of the principal are such that there should be assigned to each school a full time, trained clerical assistant.

The total expenditures for these office assistants for the year 1923, amounted to \$46,701.21.

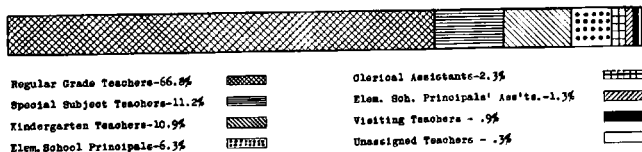
### GENERAL SUMMARY

As was stated in the Financial Summary at the close of Section 2 of the preceding chapter, the total expenditures for "Instructional Service" in the elementary schools during the calendar year 1923 amounted to \$2,033,357.66.

The following table summarizes the distribution of this amount among the lines of service rendered:

CHART V

SUMMARY OF INSTRUCTIONAL SERVICE EXPENDITURES  
FOR THE ELEMENTARY SCHOOLS





**TABLE 7**  
**Summary of Instructional Service Expenditures**  
**for the Elementary Schools**

Type of Service	Amount Spent	Per Cent of Whole
Kindergarten Teachers	\$ 221,292.01*	10.9%**
Regular Grade Teachers	1,359,052.63	66.8
Special Subject Teachers	228,458.61	11.2
Elementary School Principals	127,050.20	6.3
Elementary School Principals' Assistants	26,271.00	1.3
Unassigned	6,951.00	.3
Clerical Assistants	46,701.21	2.3
Visiting Teachers	17,581.00	.9
	\$2,033,357.66	100%

## SECTION 2

### INCREASED EXPENDITURES

#### Introductory Questions

1. How far has growth in the number of children to be cared for in the elementary schools, been a factor in increased expenditures since 1912?
2. Exactly how much have the salary schedules been increased?
3. What has been the effect of increases in the salary schedules upon the average annual salary of the grade teacher?
4. What is the defense for the increased salary schedules now paid?
5. What attempts have been made to improve the effectiveness of the work in the elementary schools, and what has been the effect of these attempts upon the increased expenditures?
6. What subjects or activities have been added to the elementary school curriculum?
7. To what extent have these additions increased the expenditures for these schools?
8. How far have the increased expenditures been within the control of the Board of Education?

In the section that precedes a relatively detailed distribution of the

\*On page 10 the cost of Instructional Service in the Kindergarten is given as \$248,755.01. This included \$27,463.00 which was the share of the Elementary School principals' salaries to be charged to the Kindergarten. In the table above the total of the salaries of Elementary School Principals has been shown as a separate item.

\*\*All percentages have been figured to three places but for the sake of convenience figures have been carried out in this report to but one place beyond the decimal, except in the case of certain percentages which are so small that the value would be lost if not carried beyond one place. In case of costs per pupil all amounts have been figured to three places but for the sake of convenience in reading these costs have been printed but two places beyond the decimal.

expenditures for the elementary schools has been made for the year 1923. To make an equally detailed distribution for the year 1912, for example, in order to compare item for item the increase made since 1912 would require more time than is available for this report. Furthermore, this period has been one of unprecedented disturbance due to the World War, and it is, consequently, doubtful if such a detailed comparison would have much practical value. On the other hand, the whole subject of increased expenditures for education is a subject of vital interest and importance. Any failure to discuss the chief factors responsible for this increase would, accordingly, be a serious omission.

**Factors Responsible for Increased Expenditure.** There are four factors that explain these increased expenditures for elementary schools in Rochester since 1912. In this section the attempt will be made to discuss briefly each of these factors and the extent to which it has been operative.

**Growth.** The first factor to be discussed is growth in the number of elementary school children to be provided for. The extent to which this factor of growth has been operative in increasing school costs is not fully realized until a comparison is made with the period that preceded 1912. This comparison is made in the following table:

**TABLE 8**  
**Growth in City Population and in Day School Enrollment**

Period	Per Cent Growth of City	Per Cent Growth of Public Day Schools
1902-1912	35 %	14 %
1912-1923	36.4 %	83.8 %

The above comparison shows that whereas, in the first period the population of the city as a whole grew more than twice as rapidly as did the day schools, in the second period the population of the public day schools grew two and one-third times as rapidly as did the population of the city.

The following table shows the growth in the elementary schools during the period from 1902 to 1923:

**CHART VI**

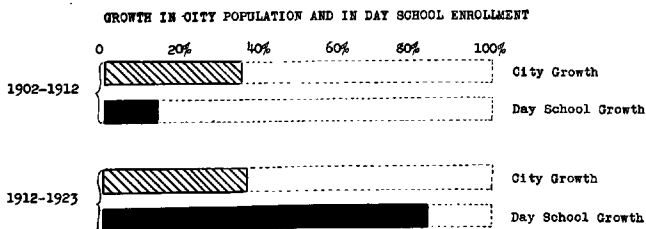


TABLE 9

**Growth in Number Belonging in Elementary Schools, 1912-1923**

Year	Average Number Belonging in Kindergarten	Average Number Belonging in Elementary Grades	Total
1923	4,646	27,025	31,671
1912	2,987	17,533	20,520
Increase	1,659	9,492	11,151
Per Cent Increase	55.5%	54.1%	54.3%

**Growth in Kindergarten Enrollment.** The increased number of teachers required by the growth in kindergarten membership, is given in the following statement, which shows the average number of teachers employed during each month for the two time periods compared:

1923	128
1912	84
Increase	44
Per Cent Increase	52.4%

But it will be noted that the rate of growth in the average number of teachers employed was not as great as the rate of growth in the kindergarten membership. Had the increase in teachers been at the same rate, more teachers would have been employed in 1923 than actually were employed.

Attention should be called to the fact that certain kindergartens have grown to the point where practically the entire time of the director is now required for administration and supervision rather than for teaching. As a principle, each kindergarten director teaches during the entire day precisely the same as does the kindergarten assistant. The director is simply the one upon whom the responsibility rests for decisions within the kindergarten. Experience has, however, shown that in the larger kindergartens which deal with the children of the foreign born, it is particularly necessary that the director shall devote comparatively little of her time to teaching but that she shall rather spend this time in administration and supervision.

Examples of this growth and the consequent need of increased time for administration and supervision on the part of the kindergarten director, are shown in the following table:

TABLE 10

**Membership in the Three Largest Kindergartens**

School	Membership	
	1912	1923
Whitney School, No. 17	116	268
Concord School, No. 18	165	326
Susan B. Anthony School, No. 27	154	327

**Growth in Elementary Enrollment.** The increased number of teachers required by this growth in elementary grade membership is given in the

following statement, which shows the average number of teachers employed during each month for the two time periods compared:

1923	776
1912	495
Increase	281
Per Cent Increase	56.8%

A review of the above facts shows that whereas the membership in the elementary grades increased 54.1% during the period under review, the number of regular grade teachers increased 56.8%. This clearly shows that each regular grade teacher in 1923 was caring for fewer pupils on the average than was the case in 1912.

This difference is largely the result of a change made in the first grades. In 1912 all first grade children were on half day session. That is to say, a teacher had one group of children in the morning and a different group in the afternoon.

Owing to the exceptional increase in the number of children of the foreign born, and also to the conviction, strongly existing even in 1912, that many of these first grade children who were suffering from handicaps to school progress that the children in the more favorable districts did not have, a change was made seven or eight years ago by which in all such cases these first grade children have been kept on full day sessions. The obvious result was practically to double the number of first grade teachers in each school where this change was made. It has meant an addition to the operating expenses of the schools but all the experience with this change has justified the addition from the standpoint of educational returns.

If, therefore, salary schedules, school organization, and all other conditions had been the same in 1923 as they were in 1912, growth alone would have required an increased expenditure for 1923 over 1912 of 55.5% in the kindergarten and 54.1% in the elementary school grades.

**Increased Salary Schedules.** In the following table the salary schedule that prevailed in 1912, both for regular grade and for special subject teachers, is given together with the subsequent changes:

**TABLE 11**  
**Salary Schedule Changes Since 1912**

Year	Initial Salary		Annual Increment		Maximum Salary	
	Regular Grade Teachers	Special Subject Teachers	Regular Grade Teachers	Regular Subject Teachers	Regular Grade Teachers	Special Subject Teachers
1912	\$ 500	\$ 500	\$ 50	\$ 50	\$ 800	\$850-900
1918	600	600	50	50	1,200	1,200
1920	800	900	100	100	1,600	1,700
1923	1,200	1,300	100	100	2,000	2,100

In evaluating this factor of increased salary schedules it is necessary, as in the case of the kindergarten, to determine the **average annual salary** of the class room teacher in 1912 as compared with the average annual salary

in 1923, owing to the fact that during each year there were teachers at all salary levels between the minimum and the maximum.

The comparative facts, including both regular and special subject teachers, are as follows:

Average Annual Salary, 1923	\$1,707.00
Average Annual Salary, 1912	770.17
Increased Average Annual Salary for 1923	\$ 936.83
Per Cent Increase	121.6%

This increase of \$936.83, or 121.6%, in the average annual salary of the class room teacher is again adequately accounted for by two factors:

1. The depreciation of the dollar.
2. The increased training required.

**Depreciation of the Dollar.** According to the index figures on the cost of living, of the United States Department of Labor, this cost has risen in 1923 about 70% above the cost in 1912. Accepting 170 as an index for 1923, the actual purchasing power of the average annual salary for 1923, (\$1,707.00) was equal to a salary of \$1,004.12 in 1912. This of course means that the purchasing power of the average salary of 1923 was only \$233.95 higher than the purchasing power of the actual average salary of 1912 which was \$770.17.

**Increased Training.** In 1912 but one year of training beyond the high school was required for appointment to the elementary teaching positions in Rochester. At the present time no person is eligible for appointment to an elementary position who is not a graduate of an approved normal school after a course of study therein of at least two years. On the average, therefore, Rochester is paying its elementary teachers \$233.95 more in 1923 than it was in 1912 for the additional year of teacher training required.

These increased salary schedules for class room teachers have been given for purposes of illustration, since the salary expenditures for class room teachers constitute approximately 87.6% of the total expenditures for instructional service in the elementary schools. The same principle applies to the schedules for principals, for example. The per cent of increase in the latter case has been kept at approximately the same figure as that for the grade teacher.

It is apparent from the above discussion that necessary and unavoidable increases in salary schedules have been an important factor in increased expenditures for the elementary schools since 1912.

**Efforts to Improve the Effectiveness of the Work.** Another point involved in this explanation of increased expenditures has to do with the voluntary attempts that have been made by the Board of Education since 1912 to do more effectively the work of the schools. One example of this principle was found in the fact that an additional year of training has been required of grade and kindergarten teachers. This action, however, was made compulsory by the State rather than at the volition of the Board of Education.

One of the outstanding illustrations of voluntary efforts of the Board of Education to improve instruction is found in the extent to which the Board of Education has stimulated a desire for growth on the part of teachers of the Rochester public schools by encouraging them to take advanced training in the leading normal schools and colleges of the country. The opportunity for professional growth is offered in summer school study, university extension work, sabbatical year privileges and in permitting teachers to visit other schools and cities, as outlined in the succeeding paragraphs.

**Summer School Study.** In June, 1913, the Board of Education passed a resolution providing that teachers who pursued courses of study in summer schools outside of Rochester should receive additional compensation for that year of \$50.00 or—if the work was taken in a local institution—an allowance of \$25.00. This action was taken in the belief that teachers who devoted a large share of their summer vacation in this manner were benefiting not only themselves, but the school system which they served and were entitled to at least this recognition. The allowance of \$50.00, or \$25.00, as the case might be, served, therefore, both as an incentive and a recognition of the work undertaken. During the summer of 1923, 83 teachers took advanced work in colleges and universities outside of Rochester while 77 took work in Rochester during the same period. The total cost to the teachers of taking these courses is not known, but the Board paid \$5,684.50 in additional compensation for the year and the expenditures made by the teachers were naturally much higher than this. The amount allowed by the Board was but a fraction of the amount paid out by the teachers themselves.

**Extension Courses.** Since 1916 the University of Rochester has offered to the teachers of Rochester an opportunity to take courses of college grade in the Extension Division of the University. These provide cultural as well as professional training. As a consequence, many teachers have taken afternoon, evening, or Saturday morning courses during the eight years in which they have been offered. The Board shares part of the expense of such work by paying to the Rochester Teachers' Association a sum recommended by the Superintendent of Schools and approved by the Board of Education for tuition and registration fees of members of the Association who take Extension Courses. The maximum refund to an individual teacher for any one semester is \$10.00 regardless of the number of courses taken. During the calendar year 1923, 803 teachers pursued one or more courses. The actual expenditures by the Board of Education for this purpose amounted to \$7,866.50. The amount which the teachers themselves paid out over and above the refund allowed by the Board of Education amounted to approximately \$5,000.00.

**Sabbatical Year.** In 1907 the Sabbatical Year plan was established so that a teacher may obtain a leave of absence for one year or half a year for study or study and travel. The Board of Education pays part of the regular salary while such teacher is on leave of absence, the amount in no case to exceed \$1,000.00. The teacher in turn agrees to remain in the service of the Board of Education for three years after the expiration of such leave, or in case of resignation within three years, to refund to the city a propor-

tionate amount of the salary paid her during such leave. Ten teachers were on leave of absence in 1912 and a total of \$5,032.50 was paid in salaries to such teachers during that calendar year. In 1923 an average of fifteen teachers were on leave throughout the year and the gross salaries paid to them totaled \$14,462.00. Since supply teachers at minimum salary rates temporarily fill the positions thus made vacant, the net salary cost to the city of this Sabbatical Year privilege for 1923, was \$2,327.

**Visiting Days.** Still another practice in the Rochester system which is designed to promote the educational value of the teacher and keep her abreast of the times is the plan of permitting a teacher to visit some other school or system for the purpose of observing methods and practices in use there. Two days are allowed during the year for this purpose and the teacher is paid in full for such time. Her position must be filled during her absence and a supply teacher is accordingly employed. The total cost during the calendar year 1923\* for supply teachers for this purpose was \$7,930.25. It was money well spent in providing for the teacher the opportunity to acquire that breadth of view and understanding, which comes only from a knowledge and a careful analysis of worthwhile practices in use in systems other than her own. This plan insures for the system as a whole, a corps of teachers alive to present-day problems and interested in their solution.

**Cost of Providing These Opportunities for Special Training.** The amount spent by the Board of Education to secure for the teachers of Rochester that degree of special training represented by the activities described above was \$46,958.32. No attempt has been made to differentiate between the courses taken by teachers from elementary, junior, or senior high schools because such differentiation has not been thought worth while. The expenditure of the Board of Education for this purpose during 1923 was distributed as follows:

TABLE 12  
Total Cost of Other Teacher Training

	Instructional Service	Other Current Operating Expenses	Debt Service	Total
After School and Evening Classes	\$ 669.50	\$ 81.92	\$ 147.10	\$ 898.52
Summer School Courses	5,684.50	695.17	1,248.25	7,627.92
Extension Courses	899.50	7,076.99	197.50	8,173.99
Sabbatical Year	14,462.00	1,768.61	3,175.71	19,406.32
Special Lectures		210.00		210.00
Visiting Days	7,930.25	969.85	1,741.47	10,641.57
	\$29,645.75	\$10,802.54	\$6,510.03	\$46,958.32

The Board of Education considers the money spent for advanced teacher training the best investment imaginable. It keeps the spirit of inquiry and

\*Visiting days were allowed in 1912, but no separate account was kept of the salaries paid to supply teachers for this purpose and it was not thought worth while—for the purposes of this study—to make a detailed tabulation of individual cases in 1912 which would have required considerable time.

study alive and avoids, to a large extent, the danger of falling into a rut, the bane of every profession.

Another outstanding illustration of this principle, so far as voluntary efforts of the Board of Education are concerned, is found in the additional number of special subject teachers now required.

The only type of special subject teacher employed in 1912 was the manual training teacher. The following statement will make clear the exceptions to this principle.

**Domestic Science.** Domestic Science was taught to the upper grade girls of the elementary school in 1912, at no salary expense to the Board of Education. The explanation is that at this time domestic science was taught by the practice teachers of the Mechanics Institute and so, as a principle, did not require expenditures from the Board of Education. There were, however, two special subject teachers of Domestic Science employed by the Board even in 1912.

**Health Education.** As a principle, all work in health education in 1912 was taught by the regular grade teacher. Here, again, however, there were two exceptions. In an experimental way gymnasiums were built in Henry Lomb School, No. 20, and in the then Washington School, No. 26, during the time that Mr. William J. Bausch was a member of the Board of Education. Mr. Bausch generously equipped these gymnasiums at his own expense and two teachers of physical training were employed.

The following table shows the special subject teachers that have been added since 1912 and the expenditures in salaries for each type for the fiscal year 1923:

TABLE 13

**Special Subject Teachers Added Since 1912 and the Total  
Salaries Paid for Such During the Year 1923**

Teachers	Salaries Paid
Health Education (required by State Law)	\$ 63,864.64
Nutrition Class Teachers and Nutrition Class Physicians	10,093.50
Vocal Music	45,309.93
Instrumental Music Teachers	3,749.85
Domestic Science Teachers	23,650.80
	<hr/>
	\$146,668.72

Deducting the amount paid for Health Education teachers that are required by State Law (\$63,864.64), the above shows that this addition of special subject teachers made for the purpose of teaching more effectively the work concerned, cost the Board of Education during the year 1923 a total of \$82,804.08 more than would have been required in salaries had the Board been satisfied with a continuance of the conditions that prevailed in 1912.

Reference has been made earlier to the reasons that prompted the Board of Education to select special subject teachers of vocal music. While this action was taken prior to the most commendable course of Mr. Eastman

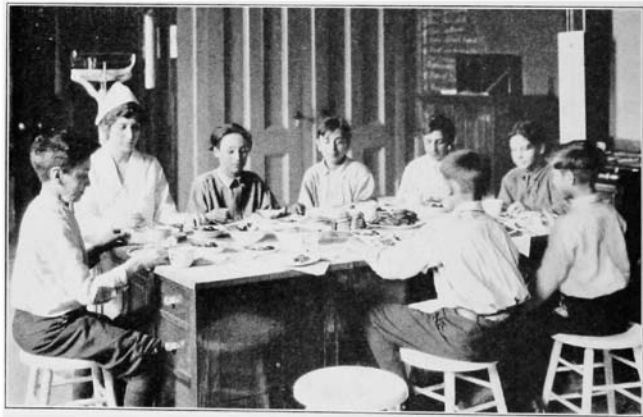


to develop a greater appreciation of music in Rochester, nevertheless the wisdom of the Board of Education in taking such action has become increasingly apparent in the light of the developments along musical lines that have subsequently been made.

The work in manual training and in domestic science has not in any sense been an addition. Both were taught in 1912.

A brief reference to the work for under-nourished children and the lessons in instrumental music may be of value at this point.

**Teachers and Physicians for Nutrition Classes.** There is reason to believe that only too often the attempts of the school are defeated from the very fact that the child is not in fit physical condition to do school work. There is sound evidence to show that these under-nourished children can be detected and, what is of vastly more importance, that their condition can, in the great majority of cases, be remedied. These nutrition classes were inaugurated in December, 1920, as a result of the generous and intelligent interest of the Tuberculosis Association of Rochester and Monroe County. The children affected were gathered into these special groups for one hour each week, and placed in charge of a physician and of specially prepared teachers. Admission to these classes is, of course, made only upon the specific request of the parents. The parents of the children are present during these class exercises and they, accordingly, become informed with reference to important health habits affecting food, rest and other equally important and vital matters. In all cases of this kind it is necessary that



Nutrition Class—Central School No. 5

careful physical examinations of the children shall be made by those who are competent to make such examinations. It is obviously not of advantage to any concerned to group into such classes, for applying remedial measures designed to better conditions due to irregularity in eating or sleeping or other similar things, those children whose mal-nourishment is due primarily to physical defects. For the purpose of conducting these examinations specially trained physicians are employed by the Board of Education.

**Teachers of Instrumental Music.** In the great list of generous things that Mr. Eastman has done for the City of Rochester, stands his provision of musical instruments for the boys and girls in the public schools at a cost amounting to approximately \$35,000.00. The salaries paid by the Board of Education for this item are required if we are to avail ourselves of this opportunity.

**Added Subjects or Activities.** The only subjects or activities that have been added during the past eleven years for which salary expenditures are required and the amount required for each are as follows:

Nutrition Classes	\$10,093.50
Instrumental Music	3,749.85

The above statement of fact is regarded as one of really great significance



Violin Class—Andrews School No. 9

in view of the impression sometimes found that the increased expenditures in our elementary schools, during the past eleven years, are largely the result of an increased number of activities, that not only cost additional money but that scatter the energies of the pupils over a broader field and consequently make for superficial school work. This is, however, a decidedly mistaken impression as the preceding review of the causes that lie back of these increased salary expenditures is designed to show.

For example, Music has been taught in the elementary grades of the public schools of Rochester since 1888. It was, however, taught by the regular grade teacher and not by special subject teachers. In view, primarily, of the increasing place that music is properly coming to have in community welfare, and in view of the consequent desire to have it taught by teachers of special ability and training, the Board of Education simply provided that in grades above the third this subject should be taught by these special subject teachers. The object was to improve the effectiveness of this work in our elementary schools.

In like manner, Domestic Science has been taught to our upper grade girls in the elementary school for more than fifteen years. At the beginning, however, it was taught by the young women at Mechanics Institute who were there studying to become teachers of this subject. This necessarily meant that it was taught by the relatively untrained and inexperienced teacher. All possible provisions were made for safeguarding the interests of our own girls under this type of instruction but the only merit that it possessed for the public schools was the merit of financial economy. Here, again, the change was made to fully trained and, for the most part, experienced teachers, for the purpose of improving the effectiveness of the work.

**Health Education.** Whatever work in health education was taught in 1912 was taught by the regular grade teacher. As a matter of fact the work in our schools along this line was largely confined to the teaching of physiology. It was largely formal and relatively of little value so far as influencing the conduct of the boys and girls of the public schools was concerned. As a result of the World War, and the extent to which it awoke our people to a realization of the neglect of health in the education of our children, the State has made compulsory the employment of special subject teachers who are specially trained for this work.

A review of this section of the report shows that practically all the increased expenditures for elementary schools since 1912, pronounced as they have been, have been beyond the power of the Board of Education to prevent. Growth, increased salary schedules, and the addition of special subject teachers in health education are responsible for approximately 87.7% of this increase. These factors have not been within the power of the Board to control. The increase of 12.3% for which the Board has been responsible has been explained. In the judgment of school authorities this voluntary action has been fully justified by the returns.

It is to be remembered that the preceding discussion applies to "Instructional Service" only. In later chapters of this report the "Other Current

Operating Expenses' and the "Debt Service" expenditures will be distributed and discussed.

### SECTION 3 STATE REQUIREMENTS AND SUPPORT OF THE ELEMENTARY GRADES

#### Introductory Questions

1. To what extent are the subjects of the elementary school required by State Law?
2. To what extent are the expenditures for class room instruction in the elementary schools required by State Law?
3. What is the salary schedule prescribed by the State?
4. What is the standard size of class in the elementary schools of Rochester?
5. To what extent does the State prescribe the number of pupils to be assigned to the individual teacher?
6. What financial support is received from the State for the elementary schools?

The requirements of the State with reference to the elementary school may be briefly discussed under the four following heads:

1. Subjects of Instruction
2. Teachers
3. Salaries
4. Size of Class and of Class Room

**Subjects of Instruction.** In general, all the subjects of instruction required for realizing the four educational aims of the elementary school are mandatory under State Law with the exception of the fine and the practical arts. That is to say, music, drawing, manual training, domestic science and domestic art are not required by the State.

**Teachers.** Regular grade teachers and special subject teachers in health education are required by the State. All other special subject teachers are employed at the option of the Board of Education. The Board of Education does, however, have a certain control over the number of teachers to be employed. The extent to which this control goes will be discussed under "Size of Class and of Class Room."

**Salaries.** The salary schedules of all teachers in the City of Rochester and in the other communities of the State were formerly fixed by local boards of education or trustees.

In 1920 the first State wide salary schedule was adopted by the Legislature. This schedule was increased during the following year and its provisions for the city of Rochester are as follows:

#### Salary Schedule for All Kindergarten, Regular Grade and Special Subject Teachers

An initial salary of not less than \$1,200.00 a year for all regular grade and kindergarten teachers.

An annual increment for each such teacher of not less than \$100.00.

A maximum salary for all regular grade and kindergarten teachers of not less than \$2,000.00.

The salary schedule for special subject teachers is \$100.00 in excess of the salary schedule for regular grade and kindergarten teachers, owing to the increased training required of special subject teachers.

The visiting teacher is on the same salary schedule as the regular grade teacher, while fully trained but inexperienced teachers who are assigned as office assistants under the provision stated on page 31 are on the minimum salary schedule for the regular grade teacher.

As has been stated earlier, the State does not determine specifically the salary schedule for elementary school principals. It does, however, require local Boards of Education to set a minimum salary for such positions, an annual increment and a maximum salary. While local Boards may fix the amount of the annual increment, the State determines the minimum number of such increments that must be paid. At present this number is eight. Copies of the schedule thus determined by the Board of Education must be filed with the State Commissioner of Education.

The Rochester schedule for principals of elementary schools is as follows:

The annual salary rate of principals of these schools shall be not less than \$200.00 in excess of the normal maximum salary set for grade teachers.

The maximum salary of principals having supervision of from one to eleven teachers inclusive, shall be \$2,900.00; of from twelve to seventeen teachers inclusive, \$3,200.00; of from eighteen to twenty-three teachers inclusive, \$3,600.00; of from twenty-four to thirty teachers inclusive, \$3,900.00; of from thirty-one to forty-five teachers inclusive, \$4,200.00; and of more than forty-five teachers, \$4,400.00.

The normal annual salary increment shall be approximately one-eighth of the difference between the minimum salary set for elementary school principals and the maximum salary for the group concerned. The number of annual increments shall be not less than eight, provided that no increment shall advance any principal beyond the maximum salary set for the position except by special action of the Board of Education.

In determining the number of teachers in any given school, only those teachers who are assigned or appointed for full time shall be included.

No teacher is eligible to appointment in the regular grades or kindergarten of the elementary schools of Rochester who is not a graduate of an approved normal school after a course of study therein of at least two years, or who has not had equivalent training.

Correspondingly increased training is required of principals of elementary schools.

In five of the elementary schools, supervising assistants are assigned. This position is optional with the Board of Education. If such a position is maintained, however, the maximum salary paid cannot, under State Law, be less than the maximum salary of the regular grade teacher (\$2,000.00). Because of the increased responsibility required of such supervising assistants, the Board of Education has set the maximum salary at \$2,500.00. The minimum increment that can be paid under the State Law is \$100.00.

**Size of Class and of Class Room.** The State Law leaves with local authorities entirely both the size of the elementary school class room and the size of the class. To be sure the Law does require that an area of not less than fifteen square feet and a cubic content of not less than two hundred feet shall be provided for each child. So long as the room is sufficient to insure this space, however, there is no limit imposed by law either as to the size of the room or the number of pupils to be accommodated.

During the time that the late Andrew J. Townson was President of the Board of Education, the present standard with reference to the elementary school class room was established. That standard provides for a room 24 feet wide and 30 feet long, designed to accommodate 35 regular elementary grade pupils, based upon class membership or the number of pupils actively belonging and so subject to attendance.

Among the cities of the country of the size of Rochester or larger, this is an exceptionally favorable standard. In the working conditions that it provides for the elementary school teacher, it is a standard not excelled and probably equalled by few other cities in the country.

It is apparent that if this standard were lowered by increasing the number of pupils per teacher, there would be a corresponding reduction in the total salary expenditures. In this sense, therefore, the Board of Education has control even of expenditures for activities required by State Law. Even so this would not affect the per cent of these expenditures (9.8%) that are optional with local authorities in the sense that they are for activities that the State Law does not require.

**Amount Paid by the State.** The State allows to the Board of Education each year the sum of \$650.00 for each regularly licensed teacher, principal, or supervisor who has served not less than one hundred and eighty days during the year. A pro rata amount is allowed for a smaller number of days. This is called the teacher quota. It constitutes but one, although the most significant, means of distributing the State moneys among the communities of the State.

## CHAPTER IV

### SPECIAL EDUCATION

#### SECTION 1

##### SPECIAL CLASSES

##### Introductory Questions

1. What special classes were conducted in 1923 and what was the purpose of each?
2. How was the per capita expenditure for each of these classes distributed according to Instructional Service, Other Current Operating Expenses, and Debt Service?
3. To what extent are these special classes required by State Law?

**Introductory Statement.** The work of this Special Education Unit simply represents an attempt to segregate in special classes, or in special schools, those children who differ so much from the normal child as to require special treatment. In this unit provisions are made for children of superior mental ability, as well as for children of low mentality; for the physically handicapped children; and for those who constitute special problems of discipline.

Such provisions are essential not simply to the educational welfare of those who are thus taken from the regular grade, but to the best educational progress of the pupils in the regular grade itself. Other things being equal, the school progress of the pupils of a given grade is proportionate to the conditions that exist as to the gradation of the pupils, provided that the child of slow mentality receives anything like the attention to which he is entitled. In other words, no teacher can give the special attention that the particularly slow pupil requires without bringing a corresponding neglect upon the other pupils of the grade. This work of the Special Education Unit, therefore, is not restricted in its benefits simply to the special class pupils themselves.

The work of the Special Education Unit is divided into Special Classes, located in different elementary schools, and Special Schools. Each of these will be discussed in the order stated.

The following types of Special Classes are in operation in the Rochester Public Schools:

1. For specially gifted children.

2. For children who are badly retarded in their school progress:
  - Due to mental handicaps.
  - Due primarily to irregular attendance for one reason or another.
  - Due to inability to speak the English language.
3. For physically handicapped children:
  - Classes for crippled children.
  - Sight saving classes.
  - Lip reading classes for children with defective hearing.
  - Classes for speech correction.
  - Classes for convalescing children in the General Hospital and Children's Convalescent Hospital at Charlotte.
4. For social problems:
  - Classes at the Shelter.
  - Classes for truants.

**The Mentally Superior.** Some four or five years ago the first classes were formed for those children who are clearly of superior mental ability. To check their development by holding them to the rate of school progress that must be observed for the great body of children in the grade, is neither good business nor good education. If one child can do in six years what another of less ability will require eight years for doing, then simple considerations of financial economy make it desirable to provide for this difference in the school organization, so far as this is practicable. It would seem, furthermore, that this procedure would also be justified on the sound educational principle of allowing no child, wherever avoidable, to form that undesirable habit of taking two hours for the task which he is entirely capable of performing in one hour.

On the other hand, it would seem important to recognize that while such children may be of superior mental ability, they are, nevertheless, young and growing children, and in many cases children concerning whose physical welfare more than ordinary caution must be exercised. To rush these children through the elementary school as rapidly as their ability might enable them to go, would, in many instances, be even more unfortunate than to check unduly their school progress. All this suggests the danger of making economy of time the factor of prime consideration in the work of these classes. Of even greater consequence is the importance of giving to these children of exceptional ability more work in the fundamentals of the elementary school, in any particular grade, than it is possible to cover with the great body of the children that make up that grade. In arithmetic, and English, and history, and other subjects, therefore, the gathering of these children into special classes makes it possible to give them a better grounding in the fundamentals of the elementary school than would otherwise be possible.

The development of these classes has not been rapid chiefly because of two considerations. In the first place, it has seemed important to work rather slowly in this experimental field in order that there might be a sound basis of experience to guide in the extension of this work. The lack of a



sufficient number of school rooms for the elementary school has also been a factor. At the close of the year 1923 there were three such classes in the elementary schools.

The total expenditures for these classes for the calendar year 1923, divided among the number of pupils belonging (55) in these classes show the per capita cost to be as follows:

**Classes for the Mentally Superior—1923**

	Cost per Pupil	Total
Instructional Service	\$ 59.82	\$3,290.00
Other Current Operating Expenses	30.61	1,683.86
Debt Service	13.14	722.59
	<hr/> \$103.57	<hr/> \$5,696.45

**The Mentally Retarded.** In 1917 the Legislature passed a law requiring that:

“The Board of Education of each city and of each union free school district in which there are ten or more children three years or more retarded in mental development, shall establish such special classes of not more than fifteen as may be necessary to provide instruction adapted to the mental attainments of such children.”

While provisions for such children did not become a State Law until 1917, nevertheless the Board of Education of the City of Rochester established its first class for such children in 1906. This action was prompted by the necessity of recognizing that the usual procedure and methods of instruction of the elementary school class room were not at all adapted to the needs of these particular children. They are for the most part seriously lacking in the capacity to grasp or to retain the information usually secured through the printed page or text book as a medium of instruction. In so far as they are reached at all they must be reached chiefly through hand work. Practically all progress, even in the simplest processes of arithmetic, comes through the computations involved in measuring the materials required for the making of simple articles that can be used in the home and in the school. It goes without saying that the ability for abstract thinking is here at a low ebb, and that consequently appeals must be made through the senses to a vastly greater extent than is true of the ordinary child.

Activities of different kinds, such as manual training, sewing, cooking, physical work, dramatization, are the concrete experiences upon which all the school work is based. One aim in these classes is to give to each child as much book work as he is capable of doing. Another, is to fill every minute of the child's day with activities that will help him form correct habits with reference to neatness, punctuality, self-respect, good workmanship, cooperation, and the like.

The number of classes maintained for the mentally retarded and the enrollment therein for the calendar year 1923 was as follows:

Class	No. of Classes	Enrollment
Primary	21	415
Girls' Prevocational	10	228
Boys' Prevocational	6	126
		<hr/> 769

The total expenditures for these classes for the calendar year 1923, divided among the number of pupils belonging (769), show the per capita cost to be as follows:

**Classes for the Mentally Retarded—1923**

	Cost per Pupil	Total
Instructional Service	\$ 95.44	\$ 73,395.20
Other Current Operating Expenses	50.32	38,698.56
Debt Service	20.96	16,116.82
	<hr/> \$166.72	<hr/> \$128,210.58



Special Class Girls, Domestic Science—Concord School No. 18

**The Ungraded.** Ungraded special classes are occasionally formed for children whose failure to make anything like normal school progress is not due solely to lack of mental ability. These children are retarded in their school progress for numerous and diverse reasons. In some cases it is due to a prolonged absence or very irregular attendance because of ill health.

In other cases it is due to the fact that parents have moved about so frequently from one community to another that the child has completely lost his bearings. These are the two causes that chiefly explain the need of such classes.

At the close of the year 1923 there were seven ungraded classes in the elementary schools. The total expenditures for these classes for the calendar year 1923, divided among the number of pupils belonging (249), show the per capita cost to be as follows:

#### Ungraded Classes—1923

	Cost per Pupil	Total
Instructional Service	\$ 55.57	\$13,836.00
Other Current Operating Expenses	35.41	8,817.13
Debt Service	12.20	3,038.05
	<hr/> \$103.18	<hr/> \$25,691.18

**Classes for Foreign Pupils.** These children are grouped into special classes for the primary purpose of teaching them the English language. Practically all the work in these special classes centers about this one purpose. As soon as anything like a fair working ability in the use of the English language has been gained, these pupils are taken from the special classes and placed in regular grades.

Those who are not familiar with this line of work in the elementary schools will be little short of amazed at the rapidity with which these children learn to speak and write English through special class instruction. As a rule in from six months to a year the normal foreign born child can be transferred to the regular grade and there carry the work successfully.

During the year 1923 there were twelve such classes in the elementary schools. This represented a considerable reduction over former years owing to the present restricted immigration.

The total expenditures for Foreign classes for the calendar year 1923, divided among the number of pupils belonging in these classes (150), show the per capita cost to be as follows:

#### Foreign Classes—1923

	Cost per Pupil	Total
Instructional Service	\$ 91.17	\$13,675.50
Other Current Operating Expenses	46.61	6,991.31
Debt Service	20.02	3,002.89
	<hr/> \$157.80	<hr/> \$23,669.70

**The Class for Crippled Children.** This class was opened in the Annex to Central School No. 5, in November, 1920. During 1923 there was an average attendance of sixty-three. In 1917 the New York State Legislature passed a Law concerning these physically defective children. This Law reads as follows:



Children Representing Twenty-nine Nationalities—Andrews School No. 9

"The Board of Education of each city and of each union free school district in which there are ten or more children who are deaf, blind, crippled, or otherwise physically defective, shall establish such classes as may be necessary to provide instruction adapted to the mental attainments and physical conditions of such children. Provided, however, that in each city or union free school district in which schools for the deaf, blind, crippled, or otherwise physically defective, now exist or may hereafter be established, which are incorporated under the laws of the state and are found by the Board of Education to be adequate to provide instruction adapted to the mental attainments and physical conditions of such children, the Board of Education shall not be required to supply additional special classes for the children so provided."

It is doubtful if there is any phase of the public school work that has made a greater appeal, or that has become more fully understood by different people and organizations in the city, than has this work for the crippled children. Rochester has given no better evidence of that fine moral spirit of sympathy and justice than the evidence found in connection with the development of this work.

In the beginning the Elks guaranteed to transport free of charge, all these children to and from the school. This Organization not only guaranteed to do this work, but it fulfilled its guarantee in every respect. No

one can quite appreciate what this meant who fails to consider that these children are scattered over the entire city, that for the most part they must be carried from the home into the automobile and from the automobile into the school; and that in all respects they must receive the most tender and considerate care.

Since the close of the first year the expense of transporting these children to and from the school, and of providing them with the food required at the school, has been met through the contributions of the Community Chest.

In the summer of 1922 the Rochester Rotary Club organized and supported, at its own expense, the Sunshine Camp for crippled children. The city was fortunate in having an unusually large house on the shore of Lake Ontario that was especially adapted to this particular use. The city authorities readily granted the use of this house as a summer home and school for these children. The Rochester Rotary Club assumed all the expense required for making the necessary repairs and otherwise putting the house in shape for these children; for transporting these children back and forth from their homes to the camp; for all food and other supplies of other than an educational nature that were required; and for all service other than that of teachers.

In the autumn of 1922, after the summer camp had been closed, the Rotary Club made provisions for those children who were convalescing from the necessary operations in the hospitals. In this undertaking the most generous cooperation of the authorities of the Children's Infant Hospital at Charlotte was cheerfully granted. Here, again, the entire expense of maintaining this convalescent home, where for many weary months some of these children lie strapped to forms, has been met by the Rochester Rotary Club.

The only expense borne by the Board of Education for this work from its inception has been the expense for strictly educational activities. In other words, the items of expenditure met by the Board of Education do not differ here from those items of expenditure required for regular elementary grade children. Whatever attention has been given to the physical welfare of these children, since the beginning of this work, has been given under the immediate direction and personal supervision of Doctor Ralph R. Fitch, and it has been given gratuitously by him. Of course, in a sense the primary object of all this work is to remove the physical handicaps from these children so far as this can possibly be done. To do this requires infinite patience and skill. In all cases the consent of the parents has to be secured; arrangements have to be made at the hospital; the operation itself must be performed; adequate provisions made for the convalescent period; and specially adapted corrective exercises given within the school. There are many who assist in this work under the direction of Doctor Fitch. The Health Bureau, for example, has provided the nurse, and the Board of Education, a physical instructor.

Throughout all this work the Rochester Guild for Crippled Children has been a most helpful and guiding body. It is composed of women who have

given to the point of real sacrifice, in many cases, of their time and of their strength in order that these children might have a fair chance.

The total expenditures for these classes for the calendar year 1923, divided among the number of pupils belonging (69), show the per capita cost to be as follows:

**Cripple and Convalescent Classes—1923**

	Cost per Pupil	Total
Instructional Service	\$186.38	\$12,860.41
Other Current Operating Expenses	100.36	6,925.09
Debt Service	40.93	2,824.23
	<u>\$327.67</u>	<u>\$22,609.73</u>



Class of Crippled Children—Central School No. 5

**Sight Saving Classes.** In 1919 the first class for sight conservation was formed. Children with defective vision who might be harmed by working under regular class room conditions, as well as those who cannot see well

enough to benefit by instruction under those conditions are candidates for sight saving classes. While, fortunately, but a small proportion of the school population suffer from this handicap no one would deny those few the right of a proper opportunity for an adequate education.

Because of the sight handicaps of the children and because their homes are so scattered, the difficulty of finding accessible common centers for class rooms has greatly hindered expansion in the work.

At the end of 1923 there were two classes. Twenty-two children were enrolled. They formed one primary and one upper grade class. Early in 1924 a class with an enrollment of twelve was organized.

The average number belonging in these classes during the calendar year 1923, was twenty-two. If, therefore, the entire expenditures made during the calendar year 1923 for Instructional Service, for Other Current Operating Expenses, and for Debt Service, be distributed among the average number of pupils belonging (22) in these classes during the year the per capita results will be as follows:

#### Sight Saving Classes—1923

	Cost per Pupil	Total
Instructional Service	\$165.00	\$3,630.00
Other Current Operating Expenses	86.15	1,895.32
Debt Service	36.23	797.14
	<u>\$287.38</u>	<u>\$6,322.46</u>

**Lip Reading Classes.** In 1913 Lip Reading Classes for the hard-of-hearing were organized. The work occupied half of the time of one teacher.

It is during childhood that the habit of lip reading should be acquired by the hard-of-hearing child, not only for its benefit as a social and educational factor, but because in adult life, lip reading is exceedingly difficult to acquire. Many adults cannot acquire it at all. It is then, distinctly a logical part of child education that the hard-of-hearing should be taught to read lips. Their eyes are trained to read the lips while the pupils are trained in the habit of concentration which is the key note to good lip reading. They are taught to "listen" with their eyes that the words which are heard indistinctly may be correctly interpreted. By the development of this power, hard-of-hearing children are prevented from becoming backward and misfits at school and in life.

Classes consist of groups of from six to eight children who meet for forty-five minute periods, three times a week.

In 1923 one teacher gave her full time to lip reading while three others divided their time between lip reading and speech correction. There were forty classes during 1923.

The number of pupils belonging in these classes during the calendar year 1923 was three hundred and twenty-two. If, therefore, the entire expenditures made during the calendar year 1923 for instructional service, for current expenses other than instruction, and for debt service, be distributed among the average number of pupils belonging (322) in these classes during the year, the per capita results will be as follows:

**Lip Reading Classes—1923**

	Cost per Pupil	Total
Instructional Service	\$18.63	\$ 5,999.00
Other Current Operating Expenses	9.52	3,067.05
Debt Service	4.09	1,317.16
	<hr/> \$32.24	<hr/> \$10,383.21

**Classes in Speech Correction.** Classes in Speech Correction were organized in 1913. One teacher spent half her time at this work.

It is known to all that there are many minor forms of incorrect speech which young children use and which do not persist beyond the second grade of school life. However, stammering and all serious forms of speech defect should be treated as soon as found, regardless of age or grade.

Speech Correction then, aims to give such individual training as will remove handicaps of speech which are a hindrance to progress in school and in life.

Classes are formed in school centers. At the close of the year 1923, three teachers spent half their time with groups of from four to eight pupils whom they met three times weekly for 45-minute periods.

The number of pupils belonging in these classes during the year 1923 was six hundred and twenty-eight. If, therefore, the entire expenditure made during the calendar year 1923 for instructional service, for current expenses other than instruction and for debt service, be distributed among the average number of pupils belonging (628), in these classes during the year, the per capita results will be as follows:

**Speech Correction Classes—1923**

	Cost per Pupil	Total
Instructional Service	\$ 6.22	\$3,905.00
Other Current Operating Expenses	3.18	1,996.49
Debt Service	1.36	857.63
	<hr/> \$10.76	<hr/> \$6,759.12

**Classes for Convalescent Children.** In 1919 a teacher was placed in the children's ward of the General Hospital. This appointment was made at the request of the Hospital managers. In September, 1923, a second teacher was placed in the Children's Convalescent Hospital, at Charlotte. The Board of Education defrays all expenses for instruction and other items regularly included in the expenditures of the Board for any other school.

Convalescent children of school age are given their lessons and kept busy with hand work occupations. This has served not only as an educational purpose, but has also served to bring about larger contentment and happiness. It is the belief of nurses and doctors that the children make more rapid recoveries under these happier conditions.

During the year 1923, a total of one hundred and seventy-eight children received instruction in the school department of the children's ward at the General Hospital. Twenty-one pupils received instruction in the school



department of the children's ward at the Children's Convalescent Hospital, at Charlotte.

The amount expended for teachers' salaries for the class at the Convalescent Hospital has been included in the expenditures for the Cripple Class at No. 5 School Annex (see page 53).

The average number of pupils belonging in the class at the Rochester General Hospital during the calendar year 1923, was twenty-three. If, therefore, the entire expenditures made during the calendar year 1923 for instructional service, for current expenses other than instruction, and for debt service, be distributed among the average number of pupils belonging (23) in this class during the year, the per capita results will be as follows:

**Rochester General Hospital—1923**

	Cost per Pupil	Total
Instructional Service	\$ 79.74	\$1,834.00
Other Current Operating Expenses	17.00	391.13
Debt Service	17.51	402.79
	<u>\$114.25</u>	<u>\$2,627.92</u>



Class at the Rochester General Hospital

**Classes at the Shelter.** At the request of the Board of Managers of the Society for the Prevention of Cruelty to Children, the Board of Education sent a teacher to the Shelter in 1920. The Board of Education defrays all expenses for instruction and other items regularly included in the expenditures of the Board for any other school.

While children are detained at the Shelter awaiting permanent placement, they receive school instruction and such work along occupational lines as will keep them happily and profitably employed. The teacher has an opportunity to study each child in a normal school environment to the end that she may be able to add her judgement to that of others in the Shelter who have to do with the final disposition of the child.

In January, 1924, a teacher for boys was added, making a total of two teachers employed at the Shelter. During the year 1923, approximately five hundred children received instruction. The average number of pupils belonging in these classes during the calendar year 1923 was thirty-two. If, therefore, the entire expenditures made during the calendar year 1923 for instructional service, for current expenses other than instruction, and for debt service, be distributed among the average number of pupils belonging (32) in these classes during the year, the per capita results will be as follows:

#### Classes at the Shelter — 1923

	Cost per Pupil	Total
Instructional Service	\$ 65.94	\$2,110.00
Other Current Operating Expenses	21.69	694.28
Debt Service	14.48	463.28
	<hr/> \$102.11	<hr/> \$3,267.56

**Classes for Truants.** The first class for truants was organized in 1904. Until 1920 all truants were sent to one school. This necessitated their going long distances from home, and, in many instances it was necessary to pass through the business section. These two conditions naturally greatly increased the temptations en route to school. In 1920 it was decided that three boys' ungraded classes should be used as centers for the attendance of truant boys. This plan made it unnecessary for any boy to walk more than a mile to school and unnecessary to cross Main Street. During the first years of this experiment these classes were largely made up of ungraded boys, a small percentage of whom were truants. This held until the last term of 1923, when one of the three classes had an entire membership of truants. The average number belonging in these classes during the calendar year 1923, was forty-two. If, therefore, the entire expenditures made during the calendar year 1923 for instructional service, for current expenses other than instruction, and for debt service, be distributed among the average number of pupils belonging (42) in these classes during the year, the per capita results will be as follows:

## Classes for Truants—1923

	Cost per Pupil	Total
Instructional Service	\$ 75.00	\$3,150.00
Other Current Operating Expenses	38.34	1,635.91
Debt Service	16.47	691.64
	<u>\$129.81</u>	<u>\$5,477.55</u>

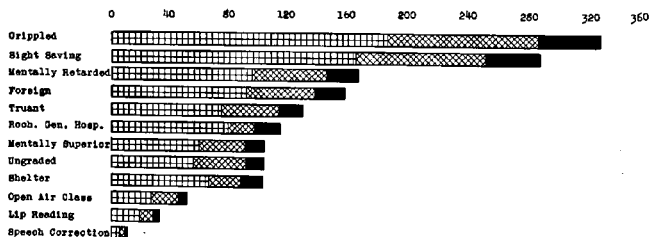
**Summary of Expenditures.** The total expenditures for special classes during the calendar year 1923, amounted to \$241,724.82. The following table summarizes the distribution of the per capita cost among the various types of special classes conducted:

**TABLE 14**  
Summary  
Cost Per Pupil for Special Classes—1923

Name of Class	Instruc- tional Service	Other Current Operating Expenses	Debt Service	Total
Mentally Superior	\$59.82	\$30.61	\$13.14	\$103.57
Mentally Retarded (subnormal)	95.44	50.32	20.96	166.72
Ungraded (Backward)	55.57	35.41	12.20	103.18
Foreign	91.17	46.61	20.02	157.80
Cripple	186.38	100.36	40.93	327.67
Sight Saving	165.00	86.15	36.23	287.38
Lip Reading	18.63	9.52	4.09	32.24
Speech Correction	6.22	3.18	1.36	10.76
Rochester General Hospital	79.74	17.00	17.51	114.25
Shelter	65.94	21.69	14.48	102.11
Truant	75.00	38.34	16.47	129.81
Open Air Class, No. 22 School (Class closed in March, 1923)	26.92	18.91	5.91	51.74

CHART VII

SUMMARY  
PER CAPITA EXPENDITURES FOR SPECIAL CLASSES — 1923



Instructional Service      Other Cur. Oper. Expenses      Debt Service

**Cost of Special Classes in 1912.** There were but four special classes in 1912. The cost data for these special or atypical classes were included in the elementary grade costs, so that comparative figures are not available.

## SECTION 2

### SPECIAL SCHOOLS

#### Introductory Questions

1. What Special Schools are conducted in Rochester and what are the specific aims of each?
2. What is the per capita cost for each type of Special School?
3. How are these per capita expenditures distributed according to Instructional Service, Other Current Operating Expense, and Debt Service?
4. How do these expenditures compare with the expenditures for these activities during the calendar year 1912 and what are the chief factors in the increase?
5. Are any of these schools required by State Law?

The following Special Schools are maintained at the present time:

Pre-Vocational School for Boys.

Edward Mott Moore Open Air School for Anaemic Children.

Open Air School at the Monroe County Tuberculosis Sanitarium for Tubercular Children.

Orphan Asylums.

**Pre-Vocational School for Boys.** This school was established in September, 1915. It is a school particularly for retarded boys from thirteen and a half to sixteen years of age. Anything like normal school progress for these boys has been demonstrated to be impossible because their ability is not of a kind that enables them to do successfully the work of the upper grades in the regular elementary school.

The fundamental aim of this school is to do all that can be done to fit these boys to earn a livelihood. For the most part even the skilled trades and occupations of life will be closed to them. Because of this, the school confines its activities to relatively unskilled lines of manual work. These include the following:

**Woodworking processes having to do with the repairing of furniture and the making of desks, tables, and other simple kinds of school room furniture, as well as the staining, varnishing, and finishing of such furniture.**

This sort of work enables these boys to go out from the school into furniture wood working factories and other places in the city where wholly useful lines of service are required, but lines of service that make very simple demands upon such powers as initiative and originality. For the most part the fields available here must be those which require the repeated doing of comparatively simple operations.

**Re-soleing, heeling and patching is done. Hand turned Goodyear and McKay types of shoes are made in small quantities.**

Modern machinery has made the repairing of shoes a relatively simple and unskilled process. This is another line that has been found adaptable to the needs and interests of the boys in this particular group.

**Forms, blanks and printing done from line cuts, is produced in considerable quantity. Press work is the main feature to which attention is given.**

So far as initiative and resourcefulness in composition are concerned they are not abilities which these boys will ever acquire to any very great degree. On the other hand, there are certain lines of work in the print shop which these boys can and will do even more satisfactorily than will many others of a different interest and ability. The man of initiative, constructive imagination, and ambition, when placed in a position that requires the constant repetition of very simple processes, is apt to be unsatisfactory both to himself and to his employer. There are many positions of this type, however, that under satisfactory working conditions can be filled by these boys. As the out-growth of this occupational training, the school has placed boys this past year in forty different types of industries in Rochester.

It is not to be understood that this school confines its activities simply to manual processes. In one very real sense even the preparation of these boys for the lines of work indicated above is subordinated to, and made a means of general education. Every boy, for example, is taught American history in the simplest and most direct way possible, all with a view to making him sympathetic with the purposes and ideals of the country in which he lives. Every boy, furthermore, is taught reading, writing, and spelling, as well as arithmetic, in order that he may get to the limit of his ability the control of these tools of education which, combined with manual skill, will enable him to become a useful citizen in the community. One-half of the six-hour day is spent in this manual work in the different shops, and the remaining half in book subjects.

The average number of pupils belonging in this school during the calendar year 1923 was one hundred and ninety-eight. If, therefore, the entire expenditures made during the calendar year 1923 for instructional service, for current expenses other than instruction, and for debt service, be distributed among the average number of pupils belonging (198), in this school during the year, the per capita results will be as follows:

#### **Pre-Vocational School for Boys—1923**

	Cost per Pupil	Total
Instructional Service	\$118.77	\$23,517.25
Other Current Operating Expenses	122.70	24,294.53
Debt Service	26.08	5,164.08
	<hr/> \$267.55	<hr/> \$52,975.86



Mill Room—Boys' Pre-Vocational School

**The Edward Mott Moore Open Air School for Anaemic Children.** This school had its beginning in some special class work, begun in October, 1909, and supported by the Rochester Public Health Association. This work developed to the point where in 1914 the Edward Mott Moore Open Air School was opened in the building which it now occupies. It has been supported by the city since 1916. The Board of Education defrays all expenses for instruction and other items regularly included in the expenditures of the Board for any other school. That is to say, neither here nor elsewhere does the Board of Education, for example, spend any money for either food or clothing for children. Special expenditures made for the physical care, including the mid-day luncheon of these children, are borne entirely by the Health Bureau.

It goes without saying that the primary purpose of this school, and the purpose to which everything else is subordinated, is that of restoring these children to something like a normal physical condition. All that science knows how to do through fresh and wholesome air, through rest periods, through proper channels of nutrition, and other corrective treatment for physical defects, is done for these children. They are expected to make only such school progress as may be consistent with this primary purpose of

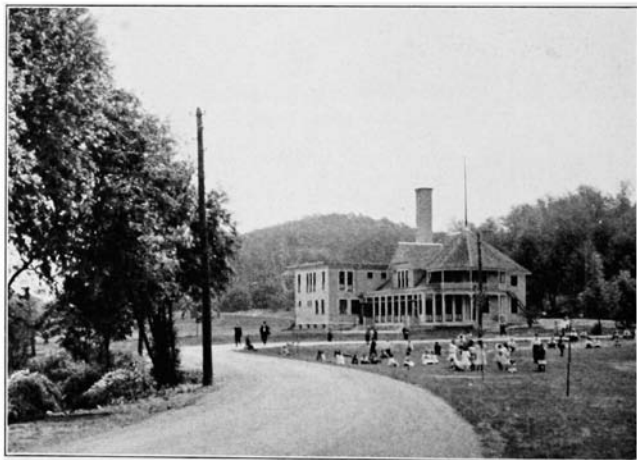
getting their bodies in proper physical condition.

On the other hand, no one thing has been of greater interest than the extent to which this opportunity for what amounts practically to individual instruction, has made it possible for these children in many cases not simply to continue a normal school progress, but even to save a grade by making exceptional progress.

The average number of children belonging in this particular school during the calendar year 1923, was sixty-three. If, therefore, the entire expenditures made during the calendar year 1923 for instructional service, for current expenses other than instruction, and for debt service, be distributed among the average number of pupils belonging (63) in this school during the year, the per capita results will be as follows:

#### Open Air School—1923

	Cost per Pupil	Total
Instructional Service	\$164.65	\$10,372.75
Other Current Operating Expenses	88.79	5,593.58
Debt Service	36.15	2,277.95
	<hr/> \$289.59	<hr/> \$18,244.28



Edward Mott Moore Open Air School

**Open Air School at the Monroe County Tuberculosis Sanatorium.** This work had its beginning in 1912 with the organization of one class. There are now three teachers. Two classes are held in open air recitation rooms. The third teacher gives bedside instruction. Every pupil who is well enough to be instructed, has his lessons either in the class room or in bed.

The Board of Education defrays all expenses for instruction and other items regularly included in the expenditure of the Board for any other school. All other expense is borne by the county.

Most of the children at the sanatorium come from Rochester. Seventy-five per cent recover their health and return to their homes. That many go back to home schools without retardation and that some are outstanding in the quality of their work, makes defense for this type of special education unnecessary.

The average number belonging in this school during the calendar year of 1923 was eighty-three. If, therefore, the entire expenditures made during the calendar year 1923 for Instructional Service and for Current Expenses other than instruction, and for Debt Service, be distributed among the average number of pupils belonging (83), in this school during the year the per capita results will be as follows:

**Classes at Monroe County Tuberculosis Sanatorium—1923**

	Cost per Pupil	Total
Instructional Service	\$ 74.66	\$6,196.40
Other Current Operating Expenses	17.03	1,413.90
Debt Service	16.39	1,360.77
	<hr/> \$108.08	<hr/> \$8,971.07

**Orphan Asylums.** Article 35, paragraph 900, of the Laws of New York, states that the Legislature passed a law requiring that "The schools of the several incorporated orphan asylum societies in this State other than those in the City of New York, shall participate in the distribution of the school moneys, in the same manner and to the same extent, in proportion to the number of children educated therein, as the common schools in their respective cities or districts. The schools of said societies shall be subject to the rules and regulations of the common schools in such cities or districts, but shall remain under the immediate management and direction of the said societies as heretofore."

The first appropriation made for Orphan Asylums was in May, 1865. Since that time three Asylums have been added. The Board of Education pays for the cost of instruction only. All other expenses are met by the institution.

The average number belonging in these schools during the calendar year 1923, was five hundred and twenty-eight. If, therefore, the entire expenditures made during the calendar year 1923 for instructional service, for current expenses other than instruction, and for debt service, be distributed among the average number of pupils belonging (528) in these schools during the year the per capita results will be as follows:



## Orphan Asylums—1923

	Cost per Pupil	Total
Instructional Service	\$66.72	\$35,226.42

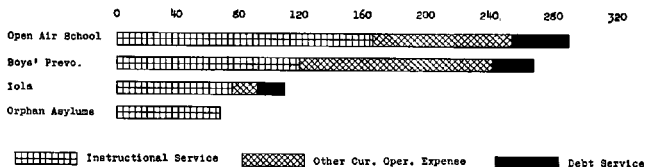
**Summary of Expenditures for Special Schools.** The total expenditures for special schools during the calendar year 1923 amounted to \$129,611.73. The following table summarizes the distribution of the per capita cost among the various types of special schools conducted:

**TABLE 15**  
**Cost per Pupil for Special Schools—1923**

	Instruc- tional Service	Other Current Operating Expense	Debt Service	Total
Boys' Pre-Vocational	\$118.77	\$122.70	\$26.08	\$267.55
Open Air School	164.65	88.79	36.15	289.59
Iola (Mon.Co.Tub. Sanatorium)	74.66	17.03	16.39	108.08
Orphan Asylums	66.72			66.72

**CHART VIII**

COST PER PUPIL FOR SPECIAL SCHOOLS - 1923



The total cost of these schools in 1912 was as follows:

Boys' Pre-Vocational (opened 1915).	
Open Air School	\$ 3,205.42
Iola (Mon. Co. Tub. Sanatorium)	\$ 647.61
Orphan Asylums	\$ 8,449.09
	<hr/>
	\$12,302.12

The increase of \$117,309.61 in 1923 over the cost in 1912 was accounted for by the growth in enrollment in these schools, the increase in salaries, the depreciation of the dollar and the establishment in 1915 of the Boys' Pre-Vocational School.

## CHAPTER V

### THE SUMMER SCHOOL

#### SECTION 1

#### DEVELOPMENT AND AIMS

##### Introductory Questions

1. What is the history of the development of the Summer School?
2. What are its chief aims?
3. What subjects are taught in Summer Schools?
4. How many enrolled in these schools during the summer of 1923?
5. What proportion of the pupils attending profited by the instruction given?

**Early Development.** Summer Schools were originally known as Vacation Schools. These Vacation Schools were established for the main purpose of giving to the children in the three most congested centers of the city, "an educational and recreational substitute for play in the streets." The first record shows that vacation schools were organized in 1903 at Schools No. 9, No. 12, and No. 27. No. 12 School alone was used as a vacation school during the summer of 1911, due to lack of funds. In 1912 Schools No. 12, No. 18 and No. 20 were still operated as *vacation* schools, but the Rochester Shop School and the West High School conducted summer sessions for "the benefit of those students who, in the judgment of the teachers, would be particularly benefited by the opportunities offered." Gradually, this idea became uppermost and the scope and purpose of the schools changed entirely.

**Aims.** The aims of the present time are set forth in the following outline of the three groups of pupils for whose benefit the schools are now conducted:

1. Pupils who are promoted but whose work is weak in one or more subjects.
2. Pupils who are to be given trial promotion and who by attending a Summer Class can make their promotion a certainty.
3. Pupils who would not regularly be promoted but who may be able, by six weeks' summer work, to earn a trial promotion.

4. Pupils who will not be given a trial promotion unless they attend a Summer Class.
5. Pupils who, by attending summer school, may be given a double promotion in September.

Instruction is given in the three major subjects, English, mathematics, and the social studies—geography, history and civics. Classes are organized in grades 4th to 8th, inclusive. In general, pupils are not admitted to these schools except upon the request of the parent and with the recommendation of the school teacher and principal. All pupils who enroll are required to attend the full session. It is thus apparent that the summer school is no longer conducted as "a recreational substitute for play in the streets," but rather as a school wherein pupils may save the repetition of a semester's work or earn a double promotion. In 1923 summer sessions were held in thirty-seven schools, including two junior high schools. Some idea of the benefits derived by the pupils in attendance may be secured from the following facts:

In the various summer schools in 1923 there was a total registration of two thousand four hundred and fourteen pupils. Included in this number were pupils who had failed of promotion in June, others who had been promoted on trial, and still others who wished to attend summer school in order to secure a double promotion. As the result of the summer school session and the trial period allowed in September, 50.2% of those who were non-promoted in June received a full promotion to the succeeding grade in the fall. Of those who received a trial promotion in June 93.3% were given a regular promotion after the trial period in September. Of those who received a promotion in June, 97.5% maintained the promotion and benefited by the special help given, while 2.5% did such satisfactory work as to merit a double promotion.

Eighty pupils attended Foreign Classes in the Summer Schools for general help in English. One hundred fifty-seven pupils from parochial schools likewise registered for this work in the public Summer Schools.

## SECTION 2

### DISTRIBUTION OF COSTS

#### Introductory Questions

1. What was the total and per capita cost of Summer Schools for the calendar year 1923?
2. What factors are responsible for the increase of 1923 over 1912?
3. What are the requirements of the State with reference to Summer Schools?

**Cost.** The total cost of maintaining the Summer Schools for the calendar year 1923 was \$18,824.27. This represented a per capita expenditure for every pupil receiving instruction of \$7.46. If this per capita cost be distributed among the various items of expenditure, the result will be as follows:

## Summer Schools—1923

	Cost per Pupil	Total
Instructional Service	\$5.34	\$13,464.00
Other Current Operating Expenses	.95	2,407.10
Debt Service	1.17	2,953.17
	<hr/>	<hr/>
	\$7.46	\$18,824.27

**Factors Responsible for Increased Expenditure.** The difference between the total cost for 1923, \$18,824.27, and the total cost in 1912, \$5,365.21, is accounted for in part by the following factors:

Growth,  
Increased Training,  
Increased Salary Schedules,  
Added Activities.

**Growth.** In 1912, three hundred and sixty-two pupils were enrolled and attended most of the time. They were in charge of forty-three teachers and five principals. In 1923 the total enrollment was three thousand four hundred and fourteen. The average weekly attendance was two thousand five hundred and twenty-two, in charge of one hundred and forty-three teachers. In 1912 five schools were maintained. In 1923 this figure had been increased to thirty-seven.

**Increased Training.** Teachers for Summer School work are for the most part selected from the regular grades of the city. As has been stated, but one year of training beyond the high school was required in 1912 for appointment to the elementary teaching positions in Rochester. At the present time, no person is eligible for appointment to an elementary position who is not a graduate of an approved normal school after a course of study therein of at least two years.

**Increased Salary Schedule.** In 1912 Summer School principals were employed at the rate of \$150 and teachers at the rate of \$50 for the term of thirty days. In 1923 no principals were employed. The compensation of teachers was \$90 for the thirty-six days the schools were in session. A supervisor was employed in 1923 at a salary of \$150 to aid in supervision.

**Added Activities.** It may be said that the whole summer school program has been developed since 1912. In the summer of that year there were but two schools carrying on work which was in any way similar to present day objectives and methods. The increase in teachers' salaries, the increase in the number of buildings used, the larger number of teachers employed, and the longer session, all account for the larger expenditures in 1923 as compared with 1912.

**State Requirements.** The State Law does not require summer schools. The Board of Education provides this opportunity and bears the entire expense of the work.

## CHAPTER VI

### THE CONTINUATION SCHOOL

#### SECTION 1

#### GENERAL AIMS

##### Introductory Questions

1. When and through what agency was the Continuation School established?
2. What is the function of this school?
3. What type of instruction is provided?
4. What is the present enrollment in this school?

**Introductory Statement.** In many of the states during recent years there has been a gradual tendency to raise compulsory school age requirements. Laws have been passed requiring full time attendance where possible and part time attendance where community sentiment is not yet ready to endorse a full time program. In 1919 the Legislature of the State of New York passed a part time continuation school law. The bill was signed by Governor Alfred E. Smith, and became operative with the opening of school in September, 1920. This law makes it mandatory upon cities of 5000 or more inhabitants to organize and maintain Part-Time or Continuation Schools. The primary need for this action was made manifest by the early withdrawal from school of many boys and girls who leave school before they have secured anything but the most rudimentary education, many not even remaining to finish the sixth grade.

The reasons given for leaving school are numerous; some are valid but many are not. The most frequent reason given is the necessity of going to work. However, out of three hundred thousand boys examined by the New York State Military Training Commission, only fifteen per cent left for financial reasons. Eighty-five per cent of those leaving school did so because they did not appreciate the value of an education. They left school just at the time when the school could best help them. These boys and girls enter industry, often to engage in very limited, uninteresting mechanical operations repeated over and over again. They find little use in their daily occupations for the English, social studies, or even the elements of mathematics which the schools have been at such pains to teach them.

**Aims.** The main purpose of the Continuation School is to conserve the education received in the elementary and junior high schools. The teaching in the part-time school includes the history and theory of our government and social organization. It seeks to conserve reading habits begun in the elementary schools and to preserve such knowledge of the processes of arithmetic as are necessary in the ordinary pursuits of life.

The Continuation School has still another purpose. Most children who enter industry with little more than a seventh grade accomplishment in school, and this is at best the school preparation that most of these children have had, are destined by the very limited nature of their education to work in the community at tasks more or less menial in character. They will be employed by the industries of the city, at the bench or machine. The Continuation School offers training to these working children which enables them to use their hands skillfully, to the end that they may earn a competent livelihood in the work in which they find themselves. The school seeks to accomplish this by relating the shop instruction in the school to the likelihood of future employment.

The Continuation School, as its name implies, continues the instruction of employed children until they are seventeen. All boys and girls in the City of Rochester who are under seventeen years of age, and who are not in high school are now receiving from four to twenty hours each week of that type of instruction which seeks, first to help them to retain facts and principles already learned, and, second, to fit them more adequately for the only positions which their limited education will permit them to fill. Working children have the same right to educational opportunities as do their more fortunate comrades who remain in school. The Continuation School Law seeks to provide these opportunities.

The first Continuation School was opened in Rochester in September, 1920. At first only pupils between fourteen and fifteen years of age were required to attend. Classes were held on Saturday mornings only—at Jefferson Junior High School. Two hundred, thirty-four pupils were registered. The present enrollment is over forty-three hundred. When the law is fully in force in 1928 it will affect all children under eighteen years of age. About six thousand will then be required to attend.

**State Requirements.** A summary of the provisions of the New York State Compulsory Continuation School Law, as passed by the Legislature and signed by Governor Smith on May 21, 1919, is given below:

1. The Continuation School shall be maintained for the full school year and on regular school days between 8 A. M. and 5 P. M.
2. Attendance upon night school may not be substituted for Continuation School instruction.
3. All children who are less than 17 years of age, who are not graduates of a four year High School Course and not in regular attendance upon full time day school, must attend Continuation School. Until 1928 the Board of Education has the right to excuse pupils between 17 and 18 years of age. Rochester is doing this.
4. Employed minors must attend four hours per week.
5. Minors out of regular employment must attend Continuation School twenty hours a week.
6. All absence, except for a good cause, must be made up within a reasonable time.

7. Penalties for failing to conform to this law may be exacted from parents, from minors and from employers.
8. A work permit must be secured by all employed minors less than 16 years of age. In September, 1925 the Law will require that all employed minors under 17 years of age must have work permits.

Two buildings are used for the Continuation School: one for home-making courses, formerly old School No. 2 used at one time as the Madison Park Vocational School for Girls; the other a rented factory building admirably adapted for the various lines of work conducted.

**The School Program.** The related academic subjects in the Continuation School take up about half of the time of each class and are grouped under four main headings: Mathematics, English, Civics, and Hygiene.

The rest of the half day session is devoted to extension training for the industry in which the pupil shows an aptitude such as homemaking for girls and commercial subjects for both girls and boys.



Office Appliance Class—Continuation School

**Courses Offered.** The following courses for boys and girls are offered in the Continuation Schools:

THE CONTINUATION SCHOOL

71

Boys

Machine Shop  
Electricity  
Sheet Metal  
Masonry  
Office Practice  
Typewriting

Drafting  
Cabinet Making  
Pattern Making  
Printing  
Bookkeeping  
Retail Selling

Instrumental Music

Girls

Homemaking  
Dressmaking  
Office Practice  
Typewriting

Plain Sewing  
Millinery  
Bookkeeping  
Retail Selling

Instrumental Music



Bricklaying Class—Continuation School



## SECTION 2

### DISTRIBUTION OF COSTS

#### Introductory Questions

1. What was the total amount of money spent for all purposes for the Continuation School during the calendar year 1923?
2. What is the extent of State and Federal aid and the net cost of instruction to Rochester?
3. What is the student hour cost, based on average daily attendance?

**Cost.** What does the Continuation School cost as required by State Law? The gross expenditure for the calendar year 1923 for this purpose was \$141,188.18 distributed as follows:

#### Continuation School—1923

Instructional Service	\$ 79,509.95
Other Current Operating Expenses	44,236.38
Debt Service	17,441.85
	\$141,188.18

**State Aid Received.** The Continuation School comes under the provisions of the Smith-Hughes Act and also under the State provision for special financial aid. The Federal government paid the sum of \$6,553.43 to Rochester as its share of the cost of conducting the Continuation Schools during 1923. The State paid \$31,182.46 for the same period. When these amounts are deducted from the gross amount paid out by the Rochester Board of Education for this purpose, it is evident that the actual net amount paid out of city funds during 1923 was \$103,452.29.

**Pupil Hour Costs.** The total number of student hours based upon the average enrollment for each month was 453,200. Reduced to a per pupil hour basis this represents a net expenditure of 22.83 cents per hour, for each boy or girl who received instruction in the Continuation School during the calendar year 1923.

## CHAPTER VII

### SECONDARY OR HIGH SCHOOL EDUCATION

#### SECTION 1

#### AIMS AND TENDENCIES

##### Introductory Questions

1. What, briefly, are the important historical facts concerning the origin and the development of the free public high school in the United States?
2. What types of educational institutions were the forerunners of the present high school?
3. When and where was the first "free" high school established in the United States?

**Introductory Statement.** The cost of secondary education has increased so rapidly that we may now be said to be facing a financial crisis. Naturally, tax-paying citizens have a right to ask whether this enormous development is sound.

The reply is that in order to understand the present status of secondary education, it is really necessary to know something of the history of the free public high school in the United States. Any attempt to answer critical questions concerning it leads inevitably to a demand for certain guiding principles in the light of which the present development may be examined, and which alone may offer a basis for a proper appreciation of current educational tendencies. A formulation of such guiding principles is well-nigh impossible, however, without a previous consideration of the factors and agencies which have caused our American system of education to assume its present form. Accordingly, in the following pages a brief survey will be given of the forces and circumstances which have helped to make American education precisely what it is. In the light of this survey the other queries listed above will be taken up. All these considerations may furnish a helpful approach to the financial aspect of high school education in Rochester, which is presented in Section 3 of this chapter.

**A Few Historical Facts Concerning the High School.** In 1647 the Colony of Massachusetts adopted a law to the effect that every town of one hundred householders should "set up a grammar school, the master thereof being able to instruct youth as far as they may be fitted for the university." Thus it may be seen that the early colonists had been in the New World only a few years when they began to make far-reaching plans for the education of their children. The Massachusetts acts of 1642 and 1647 recognized each of the three divisions of our present educational system

—the elementary, the secondary, and that concerned with higher education. They enunciated the right of the State to compel proper provision for education at public expense. While the principles outlined in these Acts were completely carried out only within the last half century, it is true, nevertheless, that the law of 1647 with its successive amendments fixed the aim and determined the scope of American secondary education for nearly two centuries. The grammar schools of the early colonists, the forerunners of our present high schools, originated as college preparatory schools. They closely resembled the Latin schools of England. They met the educational needs of only a limited number of the community, being intended primarily for children destined for the ministry or for other learned professions. And so these grammar schools were religious in character and distinctly classical in content. Their chief purpose was to prepare young men for college—Harvard and Yale in the north, and William and Mary in the south. Latin and Greek were the chief subjects of instruction.

**The Early Academy.** It is not strange that owing to this narrow type of training in the colonial grammar schools there developed a growing undercurrent of dissatisfaction with their educational program. In fact, throughout the colonial period one hears of general apathy toward the town schools which were so remote from the needs of practical life and which ministered to such a small element of the population. Only in the largest towns a sufficient number of college preparatory pupils were found to enable the town grammar school to survive. The fact was that the social, economic, and political life of the times demanded a different type of secondary training. The colonists felt that they needed an institution which should be more closely adjusted to these demands, and so a new type of secondary school gradually replaced the old Latin grammar school. It was called the "Academy."

Like the colonial grammar school, the colonial academy was of English origin. In both England and America it was due primarily to religious dissent. The academies of England were founded chiefly by non-conformist clergymen who desired to provide their children with an education in imitation of the university from which they were barred. The curriculum of these academies extended beyond that of the grammar schools and included some of the subjects taught in the universities, in addition to studies which had a closer relation to the practical affairs of life. Hence these academies came to be known as "finishing" schools.

The first American school really expressing this new spirit was established at Philadelphia in 1751 through the efforts of Benjamin Franklin. The new type of secondary school soon met with popular favor and after the Revolution schools of this kind multiplied with great rapidity. By 1850 there were more than six thousand such institutions in the United States, with an enrollment of 263,000 pupils and a teaching force of more than twelve thousand.

These "finishing schools" served the double purpose of providing general culture and giving direct preparation for life. Nor was college preparation neglected, although the very spirit of the Academy was a protest against

the narrow, pedantic training of the Latin grammar school. Nevertheless, the Academies suffered from one fatal defect which proved to be the cause of their eventual decline. They were really private institutions, under private control, which depended on tuition fees for their support. Only the children of fairly prosperous parents could afford to attend these institutions. Hence they became increasingly exclusive and aristocratic and thus found themselves at variance with the growing spirit of democracy. As in the case of the Latin grammar schools, popular dissatisfaction was bound to rise against this spirit of class education. By 1850 an irresistible movement had sprung up which called for secondary schools that should be accessible to the poor as well as to the rich. The solution of this insistent problem was found in the creation of a characteristically American institution, the free public high school.

**The Free High School.** The first of these schools was opened in Boston in 1821 and took the name English High School in 1824. The doctrine that the State is responsible for supplying at public expense not merely elementary education, but even some form of secondary education, was adopted very slowly. The high schools did not increase in numbers very rapidly until several of the states adopted a free school system. Special importance may be attached to the famous "Kalamazoo Case," of 1872, when the courts decided that taxes may be raised for the support of any grade of instruction provided the majority of voters so elect. Community after community rendered a verdict in favor of the free public high school, until now there is scarcely a town in the United States of any considerable size which does not boast of some provision for secondary education.

As might have been expected, the high school took over the work of its two predecessors, the grammar school and the Academy. Hence it has a double function—preparation for life and preparation for college. Because of the fact that the high school has thus become both a preparatory school and a "finishing school," it is the connecting link between the elementary school and the college. The free public high school aims to serve both the rich and the poor, the "classes" and the "masses." It represents an American Ideal. Its problems have grown out of the all-embracing growth of democracy. They will be solved only in proportion as the vision of democracy is realized.

## SECTION 2

### GROWTH

#### Introductory Questions

1. What are the facts concerning the increase in enrollment in secondary schools in the United States? In Rochester?
2. What are the outstanding tendencies and problems of secondary education at the present time?
3. What are the new aims of the high school?
4. What has been the effect of recent tendencies on the program of studies?

5. Is the high school truly democratic?
6. Is it possible to formulate a set of guiding principles in secondary education?

**The Growth of Secondary Education in the United States.** The phenomenal growth of secondary schools in the country at large, since 1890, may be inferred from a study of the annexed table:

**TABLE 16**  
**Growth of Secondary Schools and of Secondary**  
**School Enrollment, 1890 to 1920**

Items	Schools	1890	1900	1910	1920
Number of High Schools	Public	2,526	6,005	10,203	14,326
	Private	1,632	1,978	1,781	2,093
	Total	4,158	7,983	11,984	16,419
Number of High School Pupils	Public	202,963	519,251	915,061	1,857,155
	Private	94,931	110,797	117,400	184,153
	Total	297,894	630,048	1,032,461	2,041,308
High School Pupils per 1,000 of Population	Public	3.2	6.8	10.0	17.6
	Private	1.5	1.5	1.3	1.7
	Total	4.7	8.3	11.3	19.3
Number of High School Graduates	Public	21,882	61,737	111,363	230,902
	Private	8,070	12,216	14,409	24,166
	Total	29,952	73,953	125,772	255,068

The gross figures of attendance, up to 1920, and the percentages of increase, were as follows:

Year	Enrollment	Per Cent of Increase
1890	297,894	
1900	630,048	
1910	1,032,461	
1920	2,041,308	585%

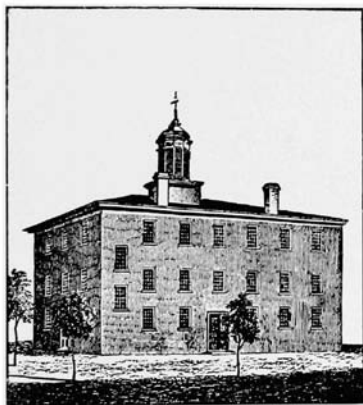
The figures are very impressive, especially if they are supplemented by the following facts compiled by statistical experts.

The total population of the United States, from 1890 to 1920, increased from 62,622,250 to 105,683,108, a total of about 69%. During that period, high school attendance increased 585%. The number of all secondary schools increased from less than 5,000 to more than 16,000. Within that period one public high school was established for every day in the years included.

In 1920 seven times as large a proportion of the total population was attending high school as was attending in 1890. The percentage of enrollment rose from three-tenths of one per cent (.003) of the total population in 1890 to two and one-tenth per cent (.021) in 1920. This means that,

while in 1890 but three persons out of every thousand in the United States attended a high school, in 1920 the number had risen to twenty-one persons out of every thousand. Moreover, in 1890 out of every thousand children enrolled in school only *sixteen* were in high school; in 1920 out of every thousand children enrolled *one hundred and two* were enrolled in high school. And, whereas in 1890 one out of every ten children of high school age actually received some kind of secondary education, today one out of every three children goes to high school. In fact, in some communities two out of every three children go to high school.

**Growth of High School Enrollment in Rochester.** As elsewhere in the country high school education in Rochester began under private auspices rather than public. The first Rochester high school was not a free public school. The building was located between Lancaster (now Cortland) and Chestnut Streets on ground now occupied by the Unitarian Church. This school was started in 1827 and continued until destroyed by fire in 1852. Dr. Chester Dewey was Principal of this school from 1836 until 1852.



First High School in Rochester (Private)

The first free high school in Rochester was established in 1857 and was known as the Central High School. A picture of this building will be found opposite page 9. The steeple of St. Luke's Church is to be seen at the extreme left of the picture. The building to the right of St. Luke's was first used as District School No. 1 but in 1857 it was taken over for use as the first free public high school and was used as such until 1872. It is significant

that on the original map of the 100-acre tract which he surveyed, Nathaniel Rochester designated Lot 85 as the "Church" lot and Lot 86 as the "Academy" lot. The building next to the High School was used as a candy store and barber shop. In 1872 this site was purchased and the city authorized the building of the Rochester Free Academy which continued in use as such until 1903, when the East High School was built. The Free Academy Building then became known as the Municipal Building and is used for the offices of the Board of Education and other municipal departments.



Rochester Free Academy

At the time of the organization of the Central High School two courses were offered, the College Preparatory and the Eclectic Course. These two courses were described as follows in the Fifteenth Annual Report of the Board of Education, 1858:

**"College Preparatory Course.** This will embrace a course of study in the Ancient Languages and the Mathematics sufficiently extensive to prepare students to enter any of our best Colleges. No student will be permitted to sacrifice accurate and thorough scholarship for the sake of rapid progress.

**"Eclectic Course.** Students not designing to graduate at the High School, nor to enter College, will be classified in the Eclectic Course. This will embrace such studies, selected from those taught at the High School, as may be best adapted

to promote the specific end desired by the scholar. The Principal will be happy to consult freely with parents concerning the best course of study to be pursued, in any case of doubt.<sup>55</sup>

At the end of the school year 1858, the summary of students is given as follows:

Graduating Course	Eclectic	College Preparatory	Total
Boys 26	Boys 35	Boys 11	Boys 72
Girls 101	Girls 37		Girls 138

In 1870 the number of pupils in the Free Academy, which succeeded the Central High School in name, was listed in the Annual Report as one hundred and forty-six. In 1880 the number of pupils had increased to three hundred and twenty-nine.

The following table shows the attendance in the Rochester High Schools since the year 1870. The East High School was opened in 1903, and the West High School in 1905. These new schools at once attracted large numbers. Since 1900 the increase in enrollment has been rapid, confirming the general trend throughout the country. In 1915 the Washington Junior High School opened its doors, to be followed in due time by the other three junior high schools. Hence, the ninth year enrollment of the junior high schools has been included in the attendance figures given in the following table:

**TABLE 17**  
**Average Number Belonging in Senior High Schools**  
**of Rochester, N. Y., 1870 to 1923**

	1870	1880	1890	1900	1910	1920*	1923*
Average Number Belonging	146	329	664	867	2,120	4,198	6,049
Per Cent of Increase	1890 to 1920 . . . . . 532%; 1890 to 1923 . . . . . 811%						

**Changing Conceptions and Recent Problems in Secondary Education.** The enrollment in the high schools of the country has risen from less than three hundred thousand in 1890 to more than two million in 1920, an increase of 585%. No business man could experience a similar expansion in his own establishment without considering far-reaching changes and adjustments, including a most careful scrutiny of his past and future business policies. It is no wonder, then, that educators all over the country have been facing this phenomenal growth in attendance and in the corresponding costs of our secondary schools with a feeling that may be described as a mixture of justified pride and anxious suspense.

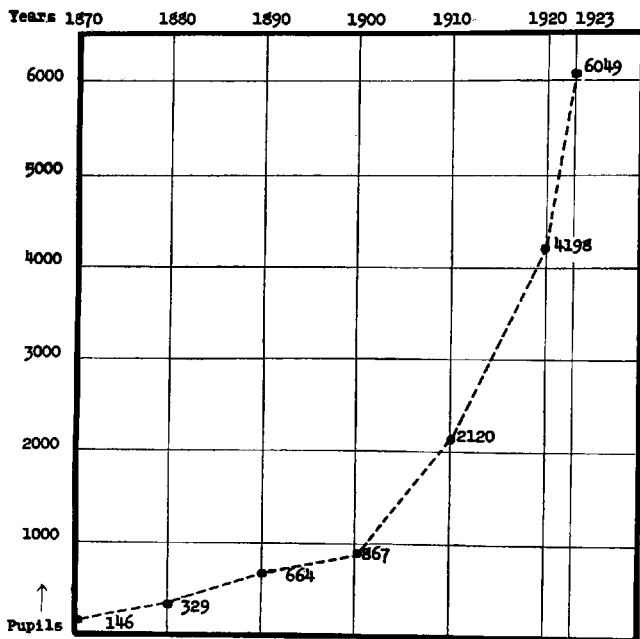
The unprecedented growth in high school enrollment in the country at large is one of the distinguishing characteristics of our epoch. It has been due to a number of independent causes. Compulsory school laws have operated to keep many children in school one or more years beyond the period at which they would have left ordinarily. Child labor laws have been

\*1920 and 1923 figures include the ninth grades of the junior high schools.



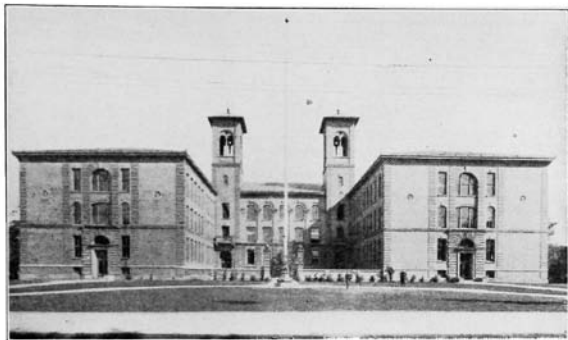
CHART IX

AVERAGE NUMBER BELONGING IN SENIOR HIGH SCHOOLS  
OF ROCHESTER, N. Y., 1870 to 1923



enforced with greater stringency. Business and industrial life have been demanding a higher grade of preparation than formerly. Above all, the increasing complexity of modern life has created a general feeling that only a trained mind can hope to remain in control of the bewildering number of factors that influence our life for better or for worse in this machine age.

All these factors have brought into the high schools large numbers of unassorted children differing enormously in their native capacities, in their family traditions, and in their outlook upon life. No other country in the world has ever faced a similar problem. In its attempt to cope with



East High School

this influx of human material, the high school is facing many difficult problems. During the past thirty years the conditions of life have been modified profoundly. The enormous increase in high school enrollment is merely one symptom of the revolution that has been going on. Industrialism and immigration have created a constantly changing economic background, with a corresponding social unrest. The advent of the automobile, of the movies, of wireless transmission, of modern newspapers and periodicals, not to mention improvements and conveniences of all kinds in homes and offices, with the resulting acceleration of the whole panorama of life, and the increased opportunities for leisure, all these and many other factors, have produced a changed outlook upon life that is vitally affecting all institutions that minister to the welfare of society.

To these *external* factors must be added a number of equally important *internal* causes of transformation. This is an age of science and of tested efficiency. The measurement movement, so long confined to the natural sciences and their many applications, has entered the realm of education. We are only at the threshold of this effort to determine educational results by the precise methods of the laboratory. But we are already observing profound readjustments in the entire educational program which may be attributed directly or indirectly to the arrival of this scientific approach to the solution of educational problems.

In short, a changed society, and the use of scientific methods, represent the two most powerful transforming influences in the educational development of the past thirty years. As a result, the aims and functions of secondary education have been given a new formulation.

**The Modern Point of View and the Development of New Aims.** The older education prescribed for each child was a practically fixed menu.

The modern educator is studying the great typical categories which any complete mental diet should contain. Just as our physical life cannot be sustained unless each of the given food ingredients is contributed in the proper proportion, so it is fair to argue that an adequate mental and spiritual education cannot safely ignore certain intellectual, aesthetic, and moral factors. Instead of asking, should this boy or girl study Latin or Mathematics?—we now say, what *types* of work should *any* normal curriculum offer? This makes a discussion of aims and values *generic* rather than *specific*. We are no longer concerned with a struggle between departments of instruction, but rather with the type of work that each department may and should offer. Thus, a study of English may serve many educational purposes. It may be cultural and intended primarily for appreciation; it may be preparatory and narrowly specialized; it may be inspirational; it may even be distinctly vocational (advertising, commercial English, journalism). Similar statements might be made with reference to almost any other subject in the high school program. The choice of subject is, therefore, reduced to one of “functions.” This means that we must be aware of the precise contribution that each type of training can offer.

Educators will differ, of course, as to the precise statement of these “functions.” According to Professor Inglis, the three fundamental aims of secondary education are:

1. The preparation of the individual as a prospective citizen and cooperating member of society—the Social-Civic Aim;
2. The preparation of the individual as a prospective worker and producer—the Economic-Vocational Aim;
3. The preparation of the individual for those activities which, while primarily involving individual action, the utilization of leisure, and the development of personality, are of great importance to society—the Individualistic-Avocational Aim.

We are not concerned, however, with the views of any one educator on this subject. The important thing is the change from a mere consideration of the individual units in the program of studies to emphasis on *types* of training.

**The Gradual Expansion of the Program of Studies.** The enrichment of the program of studies may be traced back to the academies of the nineteenth century. A list of at least seventy different subjects can be found in the published catalogues of the academies and the early high schools.

The fixed courses of study of a generation ago are no longer adequate to meet modern demands. The presence of numerous pupils whose immediate aim is direct life preparation has led to greater emphasis on the practical arts and on vocational education. And so we now find in high school curricula such subjects as home economics, agriculture, community civics, general science, household chemistry, vocal and instrumental music, etc. The creation of the Federal Board for Vocational Education, and the

adoption, in 1917, of the Smith-Hughes Act, gave a tremendous impetus to direct training in the trades and in agricultural and home economics subjects. Moreover, the changing conceptions of education and the appearance of scientific methods of curriculum-building have continuously modified and enriched each of the *traditional* subjects.

**The Question of Electives.** As the high school becomes more cosmopolitan in character, it is obvious that all the subjects offered in its extensive program of studies cannot and should not be studied by all pupils. Hence a wise selection, in the case of each individual pupil, becomes a matter of extreme importance.

It cannot be expected that an immature boy or girl of the adolescent period has the necessary vision to make a proper choice from the numerous subjects found in the curriculum. Nor are his life interests so clearly developed that it is safe for him to enter at once upon a narrowly technical or specialized line of work. At least, wherever such is the case, the pupil cannot be expected to derive a full measure of cultural benefit from his secondary studies.

To meet this very real problem the high school must offer definite provision for educational guidance, whether vocational or cultural. It must bring to the pupil's attention the importance of certain fundamental studies, the absence of which would be as fatal in his life work as would be the absence of vitamins in his food. These essential fundamental studies are often called "constants," as distinguished from the remaining subjects which may be added in variable amounts. The entire body of "constants" and "variables" constitutes the program of studies. Among the desirable constants that should appear in the curriculum of every pupil, school men have come to recognize the following as essential:

(1) English; (2) some social science; (3) some type of natural science, including health study; (4) wherever possible, at least an introductory course in mathematics; (5) some training in the fine and applied arts. Pupils will thus elect, under competent guidance, the particular curriculum which best meets their individual needs. Differentiation of pupils according to ability and interest must accompany a liberal program of studies. The curriculum of the high school must become so flexible that it offers the right kind of training to both the weak and the strong, and that it takes care adequately of the life needs of at least the most typical groups of pupils. The program of studies represents the menu of the school. Differentiation is one of the devices adopted by the school to assist in the proper assimilation of this menu.

**Is the High School Truly Democratic?** Available figures show that in the United States about eight million young people (or 75% of the total number of young people in the United States) are not reached effectively by our secondary schools.

There are many reasons, of course, why only a minority of the young people who are of high school age are actually being reached by our secondary schools. Perhaps the economic reason is the outstanding one. Then, too, there is the natural desire of growing boys and girls to escape at the

earliest moment from the restrictions of parental and all other authority, and to lead a life of supposed independence. Finally, it cannot be denied that a very large percentage of young people are not interested in a continuance of mental work beyond that of the elementary school. If at all, they could be attracted only by far-reaching and very promising opportunities for a thoroughly practical and immediately lucrative type of training.

**Guiding Principles.** A survey of present-day conditions in secondary education suggests a list of tentative guiding principles such as are offered in the following paragraphs. The American high school, created and supported by the people as a free institution, has inherited from its predecessors—the colonial grammar schools and the academies—the double task of preparing the youth of the country for higher institutions or of fitting them directly for life.

This twofold mission of the high school implies that it must provide adequate educational facilities for three groups of children:

1. Those who go to work before completing a high school course;
2. Those who can complete a high school course, but must then go to work;
3. Those who are able to enter higher institutions.

The needs of those preparing for higher institutions are relatively well-known. The program of studies to be provided for this group (often called the academic group) is rather definitely fixed by the requirements of the higher institutions or by the regulations of the State Department of Education. Hence, the cost of the *preparatory* function of the high school is unavoidable and largely beyond its control.

Precisely what constitutes an adequate education for all other types of children, what offerings the high school should provide for them, and how such a program can be made effective, is the outstanding problem of secondary education today.

This problem can be solved only on the basis of extensive scientific surveys, of wise experimentation based on tested educational objectives, and of continuous disinterested cooperation between educators and high-minded representatives of the professions, of business and industrial life.

The high school problem cannot be solved either by lowering the scholarship standards of the "preparatory" courses, or by indiscriminate "adaptation" of existing curricula to "slow" children.

There are but two ways in which the high school can become truly democratic. It must either admit all children of high school age irrespective of capacity, or it must select them impartially on the basis of ability only.

The admission of all children irrespective of ability necessarily involves two important provisions:

1. Scientific guidance, both mental and economic;
2. An extensive and thorough educational readjustment in accordance with the varying capacities and interests of children.

Unlimited secondary education for "all the children of all the people" presupposes either a type of unified high school with very extensive and therefore costly educational facilities, or a series of specialized schools for specific types of children. (The cosmopolitan school has been accused of superficiality and inefficiency. Specialized schools, unless they make adequate provision for both general culture and vocational training, endanger the principle of democracy).

In case the principle of universal, free, and unlimited secondary education is recognized, the financial obligation of the community for this division of its educational system must be multiplied by at least three or four.

There must be unremitting attention to the elimination of waste in the high school by constant insistence on more serious application on the part of high school pupils.

### SECTION 3 DISTRIBUTION OF COSTS Introductory Questions

1. What was the per capita cost and the total amount of money spent, distributed as to Instructional Service, Other Current Operating Expense, and Debt Service?
2. How did the total cost for 1923 compare with the cost for 1912?
3. What factors are responsible for the increased expenditures of 1923?
4. What are the facts concerning the instructional cost of each high school subject as at present organized?

**Distribution of Costs by Service.** If the actual amount of money paid out for senior high schools by the Board of Education during the calendar year 1923 be divided among the average number of pupils actually belonging in the senior high schools each day throughout the year, the cost for each pupil would be \$231.06.

The average number of pupils belonging in the senior high schools during the year was 4,418, and hence the aggregate cost was \$1,020,844.23.

If, now, this senior high school per capita cost of \$231.06 be distributed among the various items of expenditures the result will be as follows:

#### Senior High Schools—1923

	Cost per Pupil	Total
Instructional Service	\$132.83	\$ 586,830.20
Other Current Operating Expenses	69.07	305,146.25
Debt Service	29.16	128,867.78
	<u>\$231.06</u>	<u>\$1,020,844.23</u>

**Costs in 1912.** During the calendar year 1912 the total cost for senior high schools was \$209,547.93. With an average number belonging of 2,202, this represented a per capita expenditure of \$95.16, distributed as follows:

## Senior High Schools—1912

	Cost per Pupil	Total
Instructional Service	\$59.77	\$131,607.72
Other Current Operating Expenses	33.46	73,692.46
Debt Service	1.93	4,247.75
	<u>\$95.16</u>	<u>\$209,547.93</u>

**Factors Responsible for Increased Expenditures.** In 1912 the average number of pupils belonging in the senior high schools was 2,202. In 1923, there were 4,418—(6,049 including ninth grades of the junior high schools.) This represented an increase of 100.6% in the number of pupils in the senior high schools, or 175% including ninth grades of the junior high schools.

During 1912 the average annual salary paid was \$1,115.32. During 1923 the average amount paid was \$2,375.83, or an increase of 113%. In 1921 the State schedule for senior high school teachers went into effect.

Another factor to be considered with reference to teachers' salaries is that of the marked depreciation of the purchasing power of the 1923 dollar as compared with that of the 1912 dollar. Accepting 170 as an index for 1923, the actual purchasing power of the average annual salary for 1923 (\$2,375.83), was equal to a salary of \$1,397.55 in 1912. This of course means that the purchasing power of the average salary of 1923 was only \$282.23 higher than the purchasing power of the actual average salary of 1912 which was \$1,115.32.

**Distribution of Costs by Subjects.** Everywhere in the country the cost of instructing a pupil in the high school is a great deal more than in the elementary or primary school. So far as instruction is concerned this is due primarily to the fact that the salaries of high school teachers are appreciably higher than those of the elementary teachers, because of the longer period of preparation required, although in recent years there has been a tendency to reduce the gap between the two types of salaries. The following clearly exhibits the facts under consideration:

Year	Average Salary of Elementary School Teachers	Average Salary of High School Teachers
1912	\$ 770.16	\$1,115.32
1923	1,707.00	2,375.83

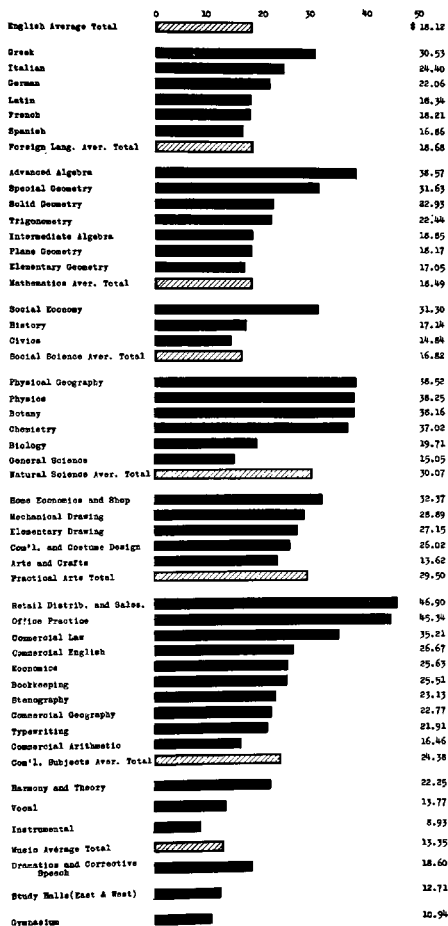
To discharge its preparatory function properly the high school must offer a large number of subjects, some of which are chosen by small groups of pupils only. This is true especially in the upper years of the high school. Thus, subjects like Greek, Italian, and Solid Geometry are usually chosen by a small group of pupils who may desire to offer these subjects in meeting certain college entrance requirements.

The following table shows for Rochester the comparative costs in all the high school subjects during the calendar year 1923:

## SECONDARY OR HIGH SCHOOL EDUCATION

87

## CHART X

SENIOR HIGH SCHOOLS  
PER CAPITA COST BY SUBJECTS - 1923



**TABLE 18**  
**Senior High Schools**  
**Per Capita Costs by Subjects—1923**

English Average Total	\$18.12
Latin	18.34
French	18.21
Spanish	16.86
German	22.06
Italian	24.40
Greek	30.53
Foreign Language Average Total	18.68
Elementary Algebra	17.05
Intermediate Algebra	18.85
Advanced Algebra	38.57
Plane Geometry	18.17
Solid Geometry	22.93
Special Geometry	31.63
Trigonometry	22.44
Mathematics Average Total	18.49
History	17.14
Civics	14.84
Social Economy	31.30
Social Studies Average Total	16.82
Biology	19.71
Botany	38.16
Chemistry	37.02
Physical Geography	38.52
Physics	38.25
General Science	15.05
Natural Science Average Total	30.07
Home Economics and Shop	32.37
Elementary Drawing	27.15
Commercial and Costume Design	26.02
Mechanical Drawing	28.89
Arts and Crafts	13.62
Practical Arts Average Total	29.50
Bookkeeping	25.51
Commercial English	26.67
Commercial Arithmetic	16.46
Economics	25.63
Commercial Law	35.21
Commercial Geography	22.77
Stenography	23.13
Typewriting	21.91
Retail Distribution and Salesmanship	46.90
Office Practice	45.34
Commercial Subjects Average Total	24.38

Vocal	\$13.77
Instrumental	8.93
Harmony and Theory	22.25
Music Average Total	13.35
Dramatics and Corrective Speech	18.60
Study Halls (East and West High)	12.71
Gymnasium	10.94

For convenience of reference the subjects are grouped under inclusive headings. Attention may be directed to a few interesting features of this table. It will be observed that the typical, well standardized lines of work show a striking uniformity of cost. Thus, English, Foreign Languages, and Mathematics have practically the same per capita cost. The cost of Social Studies seems to be slightly lower, but this may be due to the recent introduction of some newer types of work demanded by the higher institutions or by State Law, which in many cases had to be entrusted to young, and therefore less expensive teachers. The table also clearly shows that all subjects which demand considerable school room equipment of any kind cost considerably more than ordinary academic subjects. This is true especially of the natural science group and of the practical arts. The per capita cost of these two groups is practically the same. Other interesting features of the table are perhaps self-explanatory. By way of comparison, it may be interesting to study the following table, which gives the median costs of the high school subjects in fifteen California high schools, enrolling more than a thousand pupils each for October, 1922:

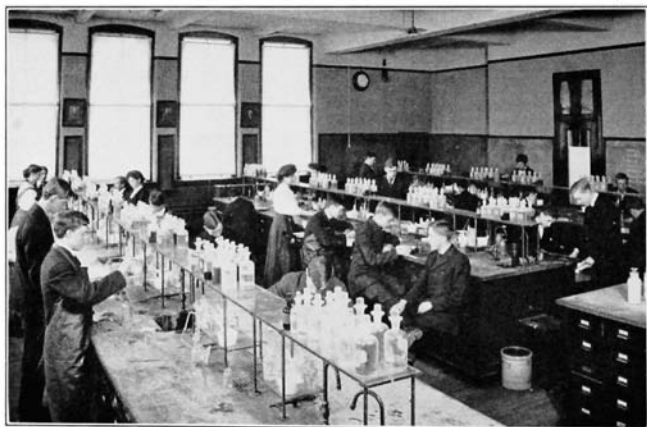
TABLE 19

**Tabulation of Teaching Costs for 15 California High Schools  
Enrolling More Than 1,000 Pupils Each**

Subject	Credit Unit Cost
Group I.	
English and Oral English	\$16.00
Mathematics	18.00
History and Social Studies	16.00
Modern Languages	17.00
Latin	20.00
Group II.	
General Science and Physiography	20.00
Physics, Chemistry and Biology	24.00
Group III.	
Commercial Arithmetic	16.00
Stenography	18.00
Typing	26.00
Bookkeeping	28.00
Miscellaneous Commercial Subjects	18.00

Group IV.	
Agriculture	\$60.00
Home Economics	42.00
Art	30.00
Mechanical Drawing	26.00
Mechanical Arts	46.00
Group V.	
Music	22.00
Physical Training	16.00

The instructional cost of the high schools will probably show a rising trend. Increasing demands are being made all the time on the professional equipment of all school teachers. More searching ideals of efficiency are coming to prevail and even the "old time subjects" which used to presuppose, by way of equipment, merely a blackboard and a text book, are calling for laboratory material, library facilities, and demonstration devices. The bare school room of the old district school type is increasingly being replaced by a thoroughly equipped laboratory reflecting the best educational theory and practice of our times.



Chemistry Laboratory—East High School

## SECTION 4

## THE ROCHESTER SHOP SCHOOL

## Introductory Questions

1. When was the Rochester Shop School organized?
2. What is the chief aim of the instruction offered?
3. What courses are provided?
4. What was the total cost to the City of Rochester during 1923?
5. How far was this cost shared by the State and Federal governments?

**The Factory School.** In December, 1908, the Rochester Factory School was organized to provide training for boys who desired to enter industry. This school was of elementary grade. Boys who had completed the sixth grade of grammar school and were fourteen years of age or over were admitted. A limited equipment for machine wood working was purchased and two instructors were employed to take charge of the fifty pupils who enrolled.

With the development of junior high schools came an opportunity for pre-vocational training. Pupils who had pursued such courses in the junior high school and desired to take further work in senior high school along vocational lines found no provision made for them in the school program. This need was met in the reorganization of the Factory School into a school of academic grade, with a two year and a four year course. The Rochester Shop School, as the new organization was called, moved from the old Rochester Factory School building at Edgerton Park to the school building on Joseph Avenue, formerly used as Grammar School No. 22. This building had been abandoned for elementary school purposes.

**The Aim of the Shop School.** The aim of the Rochester Shop School is to train those boys who are seeking a high school education, but who are more interested in industrial than in the academic type of education. The courses offered are two in number, one extending over a period of two years, the other over a period of four years. The school is in operation thirty clock-hours per week. Of this, fifteen hours are given to shop work in the courses chosen. The State grants a certificate for the completion of the two-year course and an academic diploma in technical subjects for the completion of the four-year course. All boys work three hours each day in the shop. Forty-five minutes are given to mathematics and forty-five minutes to mechanical drawing. The other one and one-half hours of the school day are devoted to the study of English, history, civics, economics, science and commercial law, according to the grade the boy has reached.

**Courses.** The following courses are offered:

Electrical,  
Industrial Science,  
Mechanical Drafting,  
Machine Department,  
Pattern Making.

**Electrical Course.** The electrical course is intended for the boy who will engage in the installation, operation, and maintenance of electrical machinery and other devices. The instruction received enables him to operate and to repair such machinery expeditiously when trouble arises. There are many branches of commercial electricity. Beginning with the simple theory of electricity, the course soon diverges into quite different subjects, such as direct power machinery, alternating current machinery, telephone systems, railway signal apparatus and electrical lighting. Although this curriculum is not based upon college entrance requirements, some engineering colleges have admitted graduates with a foreign language entrance condition.

**Industrial Science.** The pupil in the industrial science course receives a practical knowledge of the fundamentals of industrial chemistry by means of laboratory practice and class instruction. With ordinary application he may build upon this foundation and advance rapidly in his chosen field. Among other subjects taught in this course are qualitative and quantitative analysis and electro-analysis. While the consideration of some of the more complex subjects is necessarily elementary, all of the work is of a practical type.

**Mechanical Drafting.** Instruction in mechanical drafting covers the field of drafting from the most elementary subject matter to the advanced work embracing the design of tools and the drawing of punches and dies. Instruction is given in the use of instruments, lettering, projection, sheet-metal; pattern drafting, sketching of machine parts and the making of drawings for the use of the various shops of the school.

**Machine Department.** There are four basic machine tools in the machine trade today and an almost endless number of special adaptations of them. These are the lathe, drilling machine, planer and miller. The boy who elects this trade receives a good fundamental education as the work is along the practical lines found in an industrial plant.

**Pattern-Making Department.** This course is designed to give the boys training in the pattern-making trade. It aims to teach the fundamentals of the trade; to develop in the student the ability properly to construct patterns; and, to use machines and hand tools that are common to an industrial shop.

**Restrictions on Registration.** Certain courses possess unusual attractions for a large number of the entering boys. This is notably the case in the electrical department. It has, therefore, been necessary to select from the applicants, as large a number as the size of the class-room and the laboratory equipment permit. A simple examination, together with the standings acquired in standard intelligence tests, are used as the basis for filling the quota for the class.

**State Requirements and Aid.** All of the courses referred to above have been organized in accordance with the requirements of the Federal Law for Industrial Education. The school receives both Federal and State aid.

The State pays one thousand dollars toward the salary of the principal, as well as one-half of the salary of the teacher of related academic work. The State and Federal aid received amounts to two-thirds of the salary of teachers of shop and related technical subjects. Special financial aid for the Rochester Shop School, in accordance with this plan amounts to:

For the principal's salary (From State Funds alone)	\$ 1,000.00
Teachers of shop work from State and Federal Funds	10,398.00
For teachers of related academic subjects	7,100.00
	<hr/>
	\$18,498.00

By conforming to the Smith-Hughes Law the cost to the City of Rochester was thus materially reduced.

**Cost.** The average number belonging for the calendar year 1923 was one hundred and seventy-nine. The school was in operation thirty hours per week, making a total of 214,800 student hours for the year. The total cost for the calendar year was distributed as follows:

**The Rochester Shop School—1923**

	Cost per Pupil	Total
Instructional Service	\$185.48	\$33,200.69
Other Current Operating Expenses	95.77	17,142.29
Debt Service	40.85	7,312.41
	<hr/>	<hr/>
	\$322.10	\$57,655.39

On the basis of the number belonging the gross per capita cost to the city for this type of instruction was \$322.10. Deducting the sum of \$18,498.00 from the total would leave the net cost to the City of Rochester \$39,157.39 for the school.

This work has been developed in the belief that industry offers quite as many opportunities for leadership as do the professions. There are many boys who find their best field of endeavor here. A school which fits boys for these opportunities is entitled to the same consideration as are schools training for the learned professions. Today the prosperity of our country may be attributed quite as much to the successful enterprise of its industrial leaders as to the efforts of those who have attained the highest success in law, medicine or the ministry. This has been rarely recognized in the provisions made for secondary education.

## CHAPTER VIII

### THE CITY NORMAL SCHOOL

#### SECTION 1

#### GENERAL AIMS

##### Introductory Questions

1. What, briefly, is the purpose of the City Normal School?
2. Why should the city train its own teachers?
3. What departments of instruction are maintained?
4. How many students were in training during the calendar year 1923?



Rochester City Normal School

**Purpose and Advantages of a City Normal School.** The purpose of the City Normal School is to prepare high school graduates for teaching in the kindergarten and elementary grades of the public schools of Rochester.

The school is the outgrowth of a "Normal Training Class" organized in 1882. Previous to this time few grade teachers had any adequate professional training.

sional training. Although the State had previously established eight state normal schools yet these schools in their whole history, from the establishment of the first one at Albany in 1844, had graduated only a few thousand teachers. The few hundred graduates from these schools scattering throughout the State each year might well have been considered missionaries in the cause of better teaching rather than an adequate supply for the schools of the State.

At the same time, as the result of the growth of our cities, an increasingly difficult task was devolving upon the teacher. It gradually became evident that the teacher's job was outgrowing the capacities of a young girl just graduated from the eighth grade or, possibly, the high school.

Under such circumstances Superintendent Ellis began the work that through the years has grown into our present City Normal School.

Whatever the need for trained teachers may have been in 1882, there can be no question as to the much greater need now. In those days, the simple curriculum, the memoriter methods, the homogeneous population, the instruction of only the brighter children beyond the primary grades, the isolation of the school from the community life of the city, made teaching, aside from discipline, a comparatively easy occupation. It is not so today. A diversified curriculum to meet the needs of our complex social system, expert methods based upon the psychology of the child mind, a heterogeneous mass of alien children, the compulsory education law that requires all children, the dullest as well as the brightest, to attend school, the interweaving of community and school interests, all make unusual demands upon the teacher for professional training. The State has recognized this situation and has from time to time made additional requirements for professional preparation.

Although, in these days, there is little need to discuss the necessity for thorough professional preparation for a task so fundamental to our democracy, some may ask, however, why we, as a city should prepare our own teachers. The complexity of the modern city school system is such, because of the varied nature of the school population, that the City Normal School prepares candidates for specific positions in the same kind of environment that they are to have as future teachers.

**Organization.** Any adequate provision for the preparation of teachers requires a dual organization. It is necessary (1) to give students an insight into the broad field of education, to teach them the elementary facts of psychology and child study and the principles and methods of teaching each subject of the common school curriculum and (2) to provide teaching facilities for students to put into practice under competent supervision these principles and methods. The City Normal School is consequently organized in two coordinate departments—the Theory Department and the Practice Department.

The Theory Department comprises the following divisions of work with a teacher in charge of one or more divisions, there being thirteen teachers in the department:



Psychology and Principles of Education	Physiology and Hygiene
History of Education	Literature
School Management	Standard Measurements
Library Practice	Kindergarten Methods
Music	Reading Methods
Drawing	Spelling Methods
Health Education	Arithmetic Methods
Manual Training and Sewing	History Methods
Penmanship	Language Methods
Nature Study	Geography Methods

The Practice Department consists of eighteen regular grades and two kindergartens, the pupils of which are the unselected children from the district in which the school is situated. One half of these are the children of recent immigrants—mostly Italian. These practice and demonstration grades are in charge of professionally trained teachers, called Critics, whose function is to have general charge of a grade or kindergarten, to teach model lessons for normal students, to assist normal student-teachers in planning and teaching, and to counsel with them at the close of the day concerning their work.

The two departments of the Normal School during the calendar year 1923 consisted of:

Principal	1
Theory Teachers	13
Critic Teachers	20
Normal Students:	
(Total Enrollment), including January graduates who	
were in school only one month during 1923	247
Greatest number enrolled at one time	167
Average enrollment	162
Grade and Kindergarten children (average number enrolled)	630

There were also in the Normal School building the following teachers and assistants not connected with Normal School work:

Regular Grade Teachers	11
Special Class Teacher	1
Vocational Class Teacher	1
Manual Training Teacher	1
Domestic Science Teachers	2
Visiting Teacher	1
Music Teacher	1
Health Teacher	1
Nurse	1
Pianist	1
Clerk	1
Stenographer	1
	<hr/>
Total	23
Children (average number enrolled)	349

## SECTION 2

### DISTRIBUTION OF COSTS

#### Introductory Questions

1. What was the average per capita cost for students in the City Normal School for the fiscal or calendar year 1923?
2. What was the total amount of money spent for all purposes for the City Normal School during the fiscal or calendar year 1923?
3. How was this money divided as to salaries, supplies, building, and the like?
4. How did the average annual salary of the Normal School teacher in 1923 compare with the average salary in 1912? What accounts for the increase in 1923?
5. What is the relation of the State to the establishment and support of City Normal Schools?

**Distribution of Costs.** The cost of maintaining the City Normal School is not equal to the cost of maintaining the whole school plant. Were there no Normal School the children of this district would still require a principal and the same number of grade teachers as are now employed. The principal and the critic teachers in charge of grades during 1923 were paid \$7,854.52 in excess of what they would have received in a regular elementary school. Only this excess is chargeable to the teacher-training department of the Normal School. The theory teachers, however, would not be employed except for Normal School work. Their entire salaries for 1923, or \$31,418.00, therefore, are chargeable to the teacher-training department. Other costs for the training department are those for Other Current Operating Expenses, \$7,663.69 and Debt Service, \$8,623.94, making a total of \$55,560.15.

If the actual amount of money paid out for the instruction of Normal School students by the Board of Education during the fiscal year 1923, regardless of the source from which it was derived, be divided among the number of students actually belonging in the City Normal School each day throughout the year the cost for each student would be \$342.96. The average number of students belonging in the Normal School during the year was 162 and hence the aggregate cost was \$55,560.15.

If this per capita cost for the training department be distributed among the three items—Instructional Service, Other Current Operating Expenses, and Debt Service, the result will be as follows:

#### Cost of City Normal School—1923

	Cost per Pupil	Total
Instructional Service	\$242.42	\$39,272.52
Other Current Operating Expenses	47.31	7,663.69
Debt Service	53.23	8,623.94
	\$342.96	\$55,560.15

If the per capita cost be distributed between the Theory Department and the Practice Department, the result will be as shown in the following table:

TABLE 20

**Distribution of Per Capita Cost Between Theory and Practice Departments**

	Instructional Service	Other Current Operating Expenses	Debt Service	Total
Theory Department	\$31,418.00	\$6,130.95	\$6,899.15	\$44,448.10
Practice Department	7,854.52	1,532.74	1,724.79	11,112.05
	\$39,272.52	\$7,663.69	\$8,623.94	\$55,560.15

**Increased Salary Schedule.** The following table shows the salary schedule that prevailed in 1912 and the subsequent changes:

TABLE 21

**Comparative Salary Expenditures for the City Normal School, 1912 and 1923**

Years	Initial Salary	Annual Increment	Maximum Salary	Upper Max.
1912	\$ 500	\$ 50	\$1,100	\$1,200*
1923	1,600	100	2,500	3,000

In evaluating this factor of increased salary it is necessary to determine the average annual salary of the City Normal School in 1912 as compared with the average annual salary in 1923. This necessity is apparent from the fact that during each year there were teachers at various salary levels.

The comparative facts in this regard are as follows:

Average Annual Salary, 1923	\$2,423.36
Average Annual Salary, 1912	1,006.08
Increased Average Salary, 1923	1,417.28
Per Cent Increase of 1923 over 1912	140.9%

**Factors Responsible for Increased Salary Schedule.** This increase of \$1,417.28 or 140.9%, in the average annual salary of the City Normal School teacher since 1912 is adequately accounted for by such factors as the depreciation of the dollar, increased training requirements, and the limited supply of teachers properly trained for Normal School work.

**Depreciation of the Dollar.** According to the index figures on the cost of living, of the United States Department of Labor, this cost had risen in 1923 about 170% above the cost in 1912. Accepting 170 as the index for 1923, the actual purchasing power of the average annual salary for 1923 (\$2,423.36) was equal to a salary of \$1,425.51 in 1912. This, of course, means that the purchasing power of the average salary of 1923 was \$419.43 higher than the purchasing power of the actual average salary of 1912 which was \$1,006.08.

**Increased Training.** In 1912 no training beyond that of a normal school

\*In case the teacher was a college graduate an upper maximum of \$1,200 was paid.

was demanded of our Normal School teachers. Normal graduates of successful experience were usually selected from the various elementary schools of the city.

It was later considered, however, a wise principle that the Normal School teacher, as well as other teachers, should have advanced further in education than those under her tuition. Consequently more professional college work has been required during the past ten years. In 1923 nine members of the faculty were college graduates; several had nearly completed their work for a degree, while all but one had taken college courses in summer schools or extension work.

**Limited Supply of Normal School Teachers.** An additional reason for higher salaries at the present time is the limited supply of candidates fitted for Normal School work. Nowhere else in the educational field are vacancies so hard to fill as in the Normal School. A demand greater than the supply has tended to raise the salaries of these teachers. In our own City Normal School, however, salaries have merely kept pace with those of the high school.



Observation Methods Class—City Normal School

**The State's Contribution in 1923 to the Maintenance of the City Normal School.** As the Critic teachers in charge of grades would have drawn the state quota as teachers of children regardless of their teacher-training function, it is not possible to consider their quotas as an apportionment for Normal School work.

On the other hand the theory teachers would not have been employed except for teacher-training and consequently their quotas should be considered a State contribution to Normal School maintenance.

The two apportionments of State money for teachers' quotas and for student-attendance were as follows:

13 teachers' quotas at \$650 each	\$ 8,450.00
162 Normal students, attendance for forty weeks	4,000.10
	<hr/>
Total	\$12,450.10

**The Relation of the State to the City Normal School.** The City Normal School is maintained in accordance with Chapter 1031, Laws of 1895, permitting Boards of Education to establish Normal Training Schools. The law is not mandatory. The State pays the usual quota of \$650 per teacher and an additional allotment based upon the attendance of Normal students. The latter apportionment was provided for in the Law of 1895 and has not been increased since. It amounted to about sixty-five cents a week for each student in attendance during the year 1923. When the depreciation of the dollar and the increased expense for education at the present time are taken into consideration, it is very evident that the State's apportionment has become an almost negligible contribution compared to the present total cost of maintaining the Normal school.

## CHAPTER IX

### ADULT EDUCATION

#### SECTION 1

#### EVENING SCHOOLS

##### Introductory Questions

1. What are the various activities carried on in the evening schools and what are the aims of each.
2. What are the total and per capita expenditures for evening school instruction?
3. How does the total expenditure for 1923 compare with that of 1912?
4. Are the activities carried on in evening schools required by State Law?

**Aims.** Many boys and girls drop out of school as soon as the law allows; fifteen per cent leave because of financial necessity; eighty-five per cent because they see little value in continued attendance at school. Many from both of these groups realize later the handicap placed upon them by their lack of education. To supply this lack, in so far as possible, Rochester, as early as the year 1853, established a number of evening schools. These were carried on, intermittently, for a number of years. In 1898 Number 5 and Number 9 Schools were organized somewhat along the present plan. Since that time classes have grown steadily in number and in kinds of instruction offered.

Men and women, who would be unwilling to attend day school in classes with much younger pupils, are nevertheless willing to enroll in night school where they, with others of their own age and attainments, receive instruction in surroundings where no embarrassment is felt. In all of this work the aim has been to give to these men and women an opportunity better to fit themselves for the work which they have to do in industry and in the home.

Any person fourteen years of age or over who is not regularly attending day school is eligible to attend evening school. One person in every thirty-seven living in Rochester availed himself of this privilege in 1923. The growing need for education is being felt in all walks of life. For the really ambitious student who will welcome an opportunity to enter upon a well-graded course of study that will lead to advancement, the instruction given is of incalculable value.

Evening School sessions are held in certain elementary, junior, and senior high schools on Monday, Tuesday, and Thursday evenings. Schools are open from October to March, inclusive.

**Grade Work in Evening Elementary Schools.** In the evening elementary schools there is offered, for both men and women, work in the fundamental subjects: reading, writing, arithmetic, geography, spelling, and English, together with courses in sewing and dressmaking, special writing, history and civics. Instruction is given in any subject for which there is a registration of ten or more students. All students are classified and graded according to their ability. Upon the satisfactory completion of the work of a given grade, the student is promoted to the work of the next grade. The instruction is designed to be practical, to give the pupil a working knowledge of the subject in the shortest possible time.

**Work in Evening High Schools.** About one-fifth of all evening high school pupils take regular high school studies. Following is a list of these courses:

#### Certificate Courses

16 credits each

Algebra	English	Physics
Biology	French	Spanish
Bookkeeping	Geometry	Stenography
Chemistry	Italian	

**Commercial Courses.** With the exception of some advanced subjects, such as accounting and advanced correspondence, the courses in the commercial departments of the public evening schools are identical with those of the day high schools. About one-third of all evening high school pupils take commercial courses. The following is a list of these courses:

Accounting	Business Writing	Salesmanship
Advertising	Commercial Law	Shorthand
Bookkeeping	Economics	Typewriting
Business Arithmetic	Filing and Indexing	
Business English	Retail Selling	

At the completion of each semester, credit cards are issued to all students for work completed in any given subject. An hour's work in any subject for the twenty-four evenings of the semester entitles the student to two certificate credits towards graduation. Eight credits may be earned in one year. Sixteen credits in a given course are required for an evening school certificate.

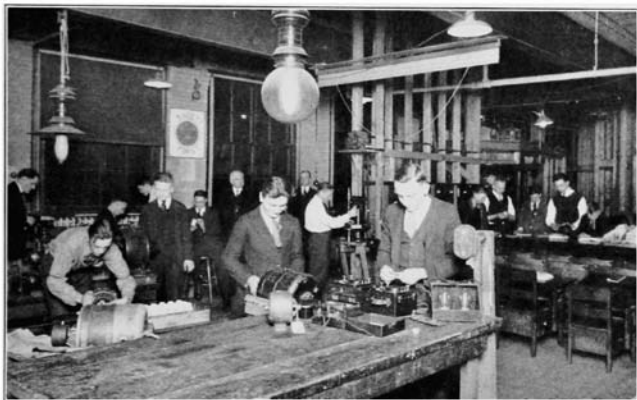
**Junior High and Vocational Schools.** About one-fourth of the pupils in night school take trade extension courses. Following is a list of these courses:

Auto Mechanics	Pattern Making	Mechanical Drawing
Blue Print Reading	Printing	Sign Lettering
Electrical	Sheet Metal Work	Machine Shop Practice
Shop Mathematics	Trade Drawing	

These extension classes, State subsidized, are available for men in the industries and for women in home-making. In the Cabinet, Machine, Sheet

Metal Shops and Pattern Making, Drafting, Printing, Electricity, Auto Mechanics and Gas Engine Classes instruction is limited to men already in these or closely allied occupations. These shops are taxed to their capacity with men of this class.

All the machines to be found in a fully equipped shop are at the disposal of the students. Opportunity is given to men working in the various trades to increase their proficiency in the use of machinery used in their daily work. Instruction is largely individual, each man being given such assistance as he needs to help solve his particular problems.



Class in Electricity—Washington Junior High Evening School

**Homemaking Courses.** About one-fifth of all night school pupils take homemaking courses. Following is a list of these courses:

Plain Sewing  
Elementary Dressmaking  
Advanced Dressmaking  
Millinery

In addition to the above, instruction is given in Child Care and Training, Home Nursing and Infant Care, Personal Hygiene, and Costume Design.

**Health Courses.** "Live a Little Longer Classes," organized under the auspices of the Board of Education with the cooperation of the City Health Bureau and the Rochester Chamber of Commerce, are offered in various parts of the city in connection with evening school work. An average of thirty-one attended during the calendar year 1923. The first course was





Plain Sewing—Washington Junior High Evening School

offered in January, 1914. It has been given over ninety times in over forty of the city schools.

The course consists of twelve lessons—and includes instruction in care of mother and infant, care of children, including childrens' diseases; physiology and psychology of adolescence; first aid in emergencies arising from accidents or in the course of sickness; bandaging; home care of the sick; diet for the sick, following the physician's instructions; care and use of sick-room appliances; administering baths and rubs; and in caring for bed-ridden patients.

The lessons are illustrated and demonstrated. This course provides an opportunity for every woman, who desires to do so, to get reliable, well-balanced information on health preservation.

**Increased Enrollment.** The average number belonging in the evening schools in 1912 was 2,730. During 1923 the average number belonging was 2,832. The number of teachers employed in 1912 and 1923 is shown in the following table:

**Teachers Employed in 1912 and 1923**

	October	December	March
1912	311	322	254 (1913)
1922	229	240	291* (1923)

\*Increase due to growth in English to Foreign Classes.

The average number of pupils belonging in the various courses for 1912 and 1923 was as follows:

	1912	1923
Evening Elementary and High School Classes	2,730	2,801
"Live a Little Longer" Courses	.....	31
Total Average Number Belonging	2,730	2,832

**Increased Training Requirements.** In 1912 evening school teachers were not required to have any special vocational teacher training, as the State requirements were not definitely formulated at that time. Today, no evening school teacher is employed in the vocational work who has not completed a definitely prescribed course of teacher training. All other evening school positions are filled by teachers with Normal School or College training.

**Salary Increases.** It is but natural that such teachers would command a higher salary than those not having these special qualifications. In 1912 and in 1923 the following monthly salary schedules were in force:

Elementary*	High*	Elementary and High**	English to Foreigners*
1912		1923	
1st Year \$24 per mo.	\$30 per mo.	\$28 per mo.	\$42 per mo.
2nd Year 27 per mo.	33 per mo.	32 per mo.	48 per mo.
3rd Year 30 per mo.	36 per mo.	32 per mo.	48 per mo.

In 1912 there were no full-time teachers. In 1923 there were six full-time workers. Evening schools in 1912 were operated for six months out of the year. In 1923 Schools Nine and Eighteen operated ten months of the year and School Number Five was in operation for the full twelve months.

The total paid out for janitorial service in the evening schools during 1912 amounted to \$2,710.71. In 1923 \$4,098.28 was paid for such service. This resulted in a 51.2% increase in current operating expense over 1912.

**Added Activities.** In 1912 instruction was given in elementary and high school subjects and in English to Foreigners. This instruction was given in twelve schools. In 1923 this instruction was given in fourteen schools and in addition "Live a Little Longer" Courses have been introduced.

**Cost of Evening School Instruction.** If the actual amount of money paid out for the calendar year 1923 by the Board of Education for Evening Schools (not including Americanization Schools) be divided among the average number of individuals actually belonging in these classes throughout the year, the cost for each individual would be \$17.89. The average number of adults belonging in such classes during the year was 2,832 and hence the aggregate cost was \$50,670.72.

If the per capita cost of \$17.89 be distributed among the various items of expenditure the result will be as follows:

\*12 nights of service

\*\*8 nights of service

**Cost of Evening Schools—1923**

	Cost per Pupil	Total
Instructional Service	\$11.77	\$33,314.88
Other Current Operating Expenses	3.53	10,020.09
Debt Service	2.59	7,335.75
	<hr/> \$17.89	<hr/> \$50,670.72

The total cost of this work in 1912 was \$51,937.55.

The fact that the cost for 1923 is less than the cost for 1912 is accounted for by the fact that many subjects taught in 1912 had been discontinued by 1923. China Painting, Basketry, Embroidery, and Raffia work were taught in 1912 but were not taught in 1923. The great increase in the cost of evening school instruction occurred in the Americanization work which is discussed in Section 2 of this Chapter.

**State Requirements.** The following is quoted from Section 311 of the State Law:

“Night Schools wherein the common branches and such additional subjects as may be adapted to students applying for instruction are taught on three nights each week, for two hours each night, shall be maintained by the Board of Education.”

**SECTION 2****AMERICANIZATION CLASSES****Introductory Questions**

1. What provisions are made in the school program of the city for instructing foreigners in the English language?
2. What, briefly, are the fundamental aims of instruction in such classes for non-English speaking pupils?
3. What was the expenditure for each individual for this instruction during the calendar year 1923?
4. How was this per capita expenditure distributed as to Instructional Service, Other Current Operating Costs, and Debt Service?
5. What was the total aggregate expenditure for the maintenance of these Americanization Classes in 1923?
6. What comparisons can be made between expenditures for Americanization Classes in 1912 and 1923, and what factors are responsible for the increase?
7. Are expenditures for Americanization Classes required by State Law?

**Americanization Work in the First Evening Schools.** Since the first evening schools were established in Rochester, foreign-born students have received instruction of one sort or another. In common with other evening schools in the country, the problem of teaching foreigners to read and write

English was not understood and adult students received instruction along lines that we have now come to believe are appropriate for children only. From time to time, however, earnest, progressive teachers have caught the vision of a better way of doing this work and here and there worthwhile efforts have been made.

**Appointment of Director of Immigrant Education.** In 1913 an attempt was made to make the work of teaching English to the foreign-born throughout the entire city more uniformly efficient. In that year the Board of Education, realizing the urgent need for adequate educational opportunities for the increasing numbers of foreigners who desired an education, appointed a director of immigrant education who instituted a provisional course of study and provided for the proper classification of students of varying degrees of abilities and qualifications.

A report issued by the State Department of Education, on December 21, 1920, showed Monroe County as one of the three counties in New York having the largest illiteracy problem. During the past twelve years Rochester has faced a tremendous task in assimilating over twenty-two thousand foreigners who have emigrated to this city. Many of these have been of school age and have, therefore, received instruction in the English language and American ideals in special foreign classes in the regular day school (described on page 50). But a large number of those coming were adults for whom some special provision had to be made if they were to be developed into anything like satisfactory American citizens. Instruction has been given to all who desired it in evening classes for foreigners, in home and community classes for the women and older girls, and in factory classes for those employed.

**Classification of Students.** In order that every individual enrolled might get the largest possible return for his efforts a plan for grading and classifying students according to qualifications was early worked out. This plan divides the students into three groups: beginners, intermediates, and advanced. The students in each group are subdivided as follows:

### Beginners

1. Real Beginners: Those who cannot speak, read, or write English.
  - a. Illiterates.
  - b. Literate in their own language.
2. Beginners: Those who can speak English but cannot read or write the language.
3. Advanced Beginners: Those who can speak English and can read and write simple sentences arranged in paragraph form.

### Intermediates

1. Beginner Intermediates: Students who have completed the simple work outlined in first books for foreigners,

who are able to read and write simple connected sentences in paragraph form, and who can also read the simpler lessons in second books for foreigners.

2. Full Intermediates:

Those who have had at least part of a year on intermediate work and who are able to read books of fourth grade difficulty.

**Advanced:**

All students who have completed the work outlined above are grouped in what is termed "advanced classes." Advanced classes naturally differ according to the previous preparation of the students. The work given is especially designed to meet the needs and desires of members of a particular group. Students in these classes are able to read and discuss the Constitution of the United States, to enjoy such a story as Hale's "Man Without a Country," and to do work in English that is of junior high school grade.

In addition to the classes for those who desire to learn English, classes are held throughout the year for those who have made their petition for citizenship and who desire to prepare themselves to meet the requirements of the naturalization court. Students in these classes are grouped as follows:

1. Those who need instruction in both English and citizenship. The work for this group is so planned that elementary citizenship facts are imparted at the same time the student is learning to read and write English.
2. Students who have completed the work of the first group are promoted to the second group where they are prepared to meet the requirements of the literacy test and given the necessary citizenship information.
3. The third group is made up of men and women who can read, write and speak English readily, but who require the citizenship information necessary to pass the examination required by the Supreme Court of the State of New York having Jurisdiction of Naturalization in Monroe County.

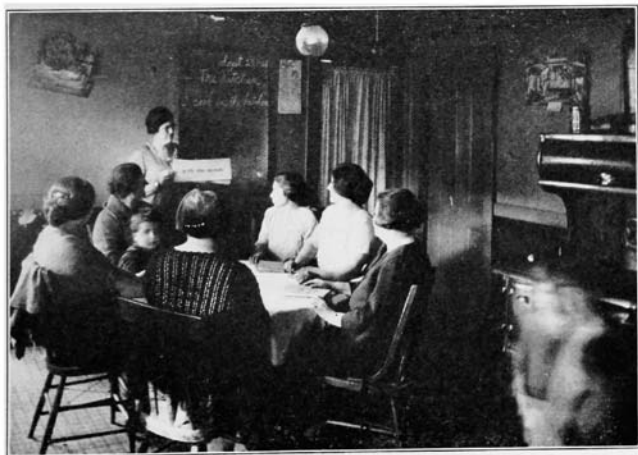
Monthly examinations are conducted in the schools by the clerk of the Naturalization Court who is employed by the Board of Education for this purpose. The diplomas issued to those who successfully complete the course and pass the examination are accepted by the Court.

**Organization and Enrollment.** School classes are provided at convenient centers. They are open three nights a week for two hours each night. Factory classes are organized wherever and whenever a group of factory workers desires instruction in English. At the present time there are seventeen such classes. Classes for women are provided at such times in the day as

will meet their convenience. Classes are held in the homes and in various foreign community centers. At the present time there are twenty-eight such classes. Special classes are also provided for both men and women who do not find it convenient to attend any of the above centers. Such classes are held in the various hotels, at church schools, in labor organizations, and in connection with lodges. Last year there were twenty such classes. In addition to the foregoing eighty-three classes were conducted in the evening schools. During the year 1923 six workers gave their full time to the problem of immigrant education and one hundred and seven teachers were employed in the different classes. During the past year a total of three thousand seven hundred sixty-eight were given instruction in English and citizenship in the one hundred forty-eight classes provided by the Department of Public Instruction.

**Aims.** The general aim in all of this work is to enable foreign-born adults to express their thoughts and to understand the thoughts of others through the medium of the English language; to help them to know and appreciate our history and our institutions, and in general, to prepare them for intelligent participation in our government.

The specific aim of classes for foreigners in evening schools is to enable beginners to speak, read, and write simple English; to help those who have attended evening school long enough to get a knowledge of simple English,



English to Foreign, Home Class

to apply the English learned to reading designed to make them familiar with our laws, our customs, our home ideals, our great Americans, and the fundamental facts of our history.

The aim of the factory classes is to give the foreign-born worker who cannot attend evening school a command of English that will enable him to understand the language of his foreman when directions, criticisms, or warnings are given; that will increase his ability to protect himself from accident; that will make him more valuable both as a worker and a member of the community.

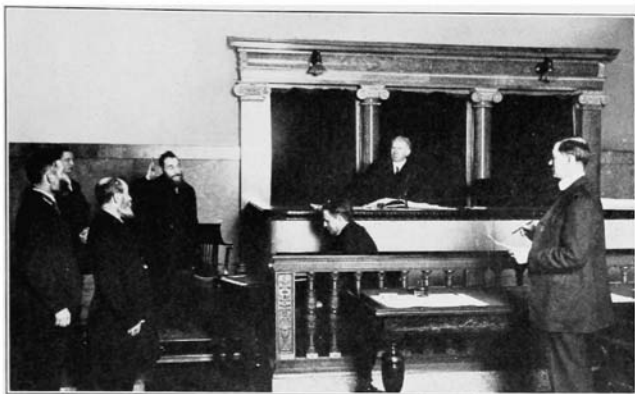
The aim of neighborhood classes, which are held in settlements, homes, or any other suitable place where ten or more of like qualifications may find it possible to meet for instruction, is to give mothers a knowledge of English that will help them in dealing with their children who are learning English in the schools; that will enable them to follow the progress of the children; and that will make it possible for them to do their part more effectively both as mothers and as members of the community.

Citizenship classes have been conducted for the purpose of preparing those who have made their petition for United States citizenship for the examination required by the Court having charge of the naturalization procedure, by giving these men and women some knowledge of our country, its institutions, and its government.

**Textbooks and Leaflets.** The textbooks used for the foreign-born and the Rochester leaflets, provided by the Department of Public Instruction, give information and suggestions along the following lines:

They give practical information so eagerly desired by the newcomer and safety suggestions so necessary for the industrial worker. They suggest the possibilities of American citizenship and teach the alien how to take his first steps in the process of naturalization. They make the foreign-born familiar with our laws, our customs, and our home ideals. While not failing to recognize some of the greatest men in other lands, they make the foreigner acquainted with great Americans who have helped to build our Republic. Beginning with the reading of simple fundamental facts in American history, the foreigner is gradually led to the study and discussion of the great American documents upon which our institutions are founded. Attracted by the colors of the flag, the foreigner in our schools gets his first lesson on the thirteen original states and gradually comes to realize that the forty-eight stars indicate the growth and development of the United States of America. Through all of these lessons he is gradually learning the real meaning of the pledge he has been taught to repeat and comes to recognize that we are "One nation, indivisible, with liberty and justice for all."

**Cost.** If the actual amount of money paid out by the Board of Education for Americanization work (other than in the regular day school) be divided among the average number of individuals actually belonging in these classes throughout the year 1923, the cost for each individual would be \$43.84. The average number of adults belonging in such classes during the year, was 1384, and hence the aggregate cost was \$60,680.43.



Naturalization Court

If this per capita cost, \$43.84, be distributed among the various items of expenditure, the result will be as follows:

#### Americanization Work—1923

	Cost per Pupil	Total
Instructional Service	\$28.23	\$39,076.87
Other Current Operating Expenses	9.43	13,044.55
Debt Service	6.18	8,559.01
	<hr/> \$43.84	<hr/> \$60,680.43

The total cost of the work in 1912 was \$15,534.59.

**Factors Responsible for Increased Expenditure.** The difference between this total and the cost for 1923 is accounted for by the following:

Increase in enrollment,  
 Increased training requirements,  
 Increase in teachers' salaries,  
 Depreciation of the dollar,  
 Added activities.

**Increase in Enrollment.** The enrollment in Americanization Classes has steadily increased during the last few years. In 1913-14, the first year for which figures are available, the total number enrolled in Americanization Classes were distributed as follows:



**Total Enrollment 1913-14**

Evening Schools	923
Factory Classes (Established in 1918)	0
Home and Settlement Classes (Established in 1919)	0
Citizenship Classes (Established in 1915)	0
	<hr/>
	923

By 1923 this enrollment had increased to the following:

**Total Enrollment in 1923**

Evening Schools	1,967
Factory Classes	386
Home and Settlement Classes	497
Citizenship Classes	918
	<hr/>
	3,768

**Increased Training Requirements.** So important a task as teaching immigrants cannot be left to persons who have no special preparation for the work. It was found that teachers must have a special aptitude for this kind of teaching which requires a high degree of professional skill; and that they must be sympathetic, energetic and wisely zealous. Teachers must have a clear conception of the definite stages of progress in learning the language, must be familiar with text books used, and must be able to apply their teaching to the various stages of the advancement of the students. In 1912 teachers of immigrant education had no such training, nor were they selected on the basis of natural qualifications for this work. After the year 1914, however, before teachers were selected they were required to take a very definite training course. Rochester was a pioneer in this work, having, as far as is known, the first normal class for training teachers of immigrants. Since that time a teacher must receive a satisfactory rating in personality, in general ability, in natural aptitude, in oral and written work, and a final examination.

**Salaries of Teachers.** It is but natural that the Board of Education should have to pay more for this type of teacher than the former untrained and many times, unqualified type. The average amount paid to a teacher during 1912 was \$176.67. The average amount paid to an individual teacher during the fiscal year 1923 was \$391.37.

**Depreciation of the Dollar.** Part of this increase, however, is offset by the depreciation of the dollar since 1912. The purchasing power of the average salary of 1923 was only \$53.54 higher than the purchasing power of the actual average salary of 1912 which was \$176.67.

**Added Activities.** In 1912 classes for foreigners had been in operation for some time but not until later did this work assume its present proportion. Since 1912 a director and supervisor have been appointed, factory and neighborhood classes organized, and citizenship classes developed for the preparation of those who wished to obtain their naturalization papers. In

addition a normal training class has been introduced, a course of study outlined, and many leaflets prepared for use in the various classes. All of this represents an attempt on the part of the Board of Education to bring this work to the highest state of efficiency. Only in this way can we hope to accomplish anything really worthwhile for the 71,411\* foreigners who are now in our city.

The expenditure of \$60,680.43 will not be considered unwise when it is remembered that Rochester is gradually solving her illiteracy problem. These people are being taught to read and write the English language, they are being trained in American ideals and are being prepared for a helpful and intelligent citizenship.

**State Requirements.** The amendment to the Compulsory Education Act requires minors, who are unable to read and write up to and including work of fifth grade difficulty, to attend either evening or factory classes. This provision included at least 50% of the foreigners of the city. It may, therefore, be seen that Rochester is required by State Law to do all that is being done to give instruction to the foreign-born of the city.

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\*Federal census 1920

## CHAPTER X

### CURRENT OPERATING EXPENDITURES

#### SECTION 1

#### CENTRAL BUSINESS AND EDUCATIONAL ADMINISTRATION

##### Introductory Questions

1. What offices or departments are maintained by the Board of Education for the general administration of the school system? And what is the relation of the State to the work of Central Business and Educational Administration?
2. What in a word are the principal duties of each office or department?
3. What was the total expenditure for each office or department for general administration during the year 1923?
4. What share of the total expenditure for each office or department of general administration should be charged to the elementary schools?
5. What was the total expenditure for such business and educational administration for the elementary schools during the year 1923?
6. What per cent of all expenditures for the elementary schools for the year 1923 was used for the business and educational administration of these schools?
7. What was the total expenditure for the public schools of Rochester during the fiscal year 1923, and what per cent of this expenditure was used for central business and educational administration?
8. To what extent have expenditures for central business and educational administration increased since 1912, and what are the chief factors responsible for the increase?

In preceding chapters the attempt has been made to show what portion of the expenditures for each unit of the school organization were chargeable to Instructional Service, Other Current Operating Expenditures and Debt Service. In Chapter III Instructional Service Expense was discussed at length. It is now proposed to show, in somewhat the same manner, the classes of expenditures which are included under the heading "Other Current Operating Expenditures." These Current Operating Expenditures are classified as follows:

1. Central Business and Educational Administration.
2. Central Supervision of Instruction.
3. Maintenance and Operation of School Plant.
4. Auxiliary Agencies.
5. Fixed Charges.
6. Supplies.
7. Capital Outlay.

Each of these items will be discussed at length to show the expenditure for each for the system as a whole and also the proportionate amount to be charged to the elementary schools. The amount chargeable to the elementary schools is shown in each instance because it is felt that it will be of interest to know just what part of the total operating expense was caused by the elementary schools in the city. The difference between the elementary and the total expense indicated will, of course, be the portion chargeable to the other units of the school organization, viz., the special education, adult, senior, junior, normal, continuation, and summer schools.

The total amount of Other Current Operating Expenses charged to the Kindergarten for the year 1923 was \$110,389.07, and the total amount charged to the Elementary Grades was \$872,978.08. This gave a grand total for the Kindergarten and Elementary Grades of \$983,367.15. The items among which this grand total was distributed, and the amount chargeable to each was as follows:

1. Central Business and Educational Administration	\$ 75,041.25
2. Central Supervision of Instruction	102,898.86
3. Maintenance and Operation of School Plant	488,965.33
4. Auxiliary Agencies	66,671.00
5. Fixed Charges	138,260.63
6. Supplies, etc.	28,303.59
7. Capital Outlay	83,226.49
	<u>\$983,367.15</u>

**Departments, Functions, and Costs of Central Business and Educational Administration.** There is a clearly defined line between those officers of the Board of Education at the Central Office, whose duties are concerned primarily with matters of administration and those whose work it is to supervise instruction. The officers or departments of general business and educational administration are as follows:

**The Board of Education.** The members of this body, five in number, are the agents of the State, although they are elected by the people of the city at large. Each member is elected for a term of four years. The Board is responsible, within the provisions of the State Law, for the general conduct of the schools. The members, accordingly, deal with all matters of general policy affecting the business and educational welfare of the public schools of Rochester.

The Board of Education, in accordance with the State Law, employs a Secretary. This position was originally established by the Charter of the City of Rochester, adopted in 1898. The duties of the Secretary, as defined

by the Charter, were to have "charge of the rooms, books, papers and documents of the Board, except such as pertain to the office and duties of the Superintendent of Schools; to perform such duties as might be required of him by the Board, its committees or members; to administer oaths and take acknowledgments, but without fee; to serve as clerk of the Board, and thereby keep or cause to be kept a record of the proceedings thereof." The original Charter provided that in addition to this the Secretary should keep or cause to be kept a set of records showing the receipts and expenditures of the Board. As will be seen later, however, the financial duties that originally rested upon the Secretary have since been transferred to the Confidential Examiner of Accounts, and there has been added to the duties of the Secretary the work of directing the supply purchasing department. The nature of the duties here will be discussed later.

Each member of the Board of Education receives an annual salary of \$1,200.00. The Secretary of the Board received during the year 1923 an actual salary of \$4,100.00.

The total expenditures for the Board of Education and the Secretary's office, during the year 1923, amounted to \$12,837.83. This, of course, included all clerical assistance, supplies, and the like. Of this total amount the share to be charged to the elementary schools was \$7,007.40. This share was 0.2% of the total expenditures for elementary schools during the year, and 0.34% of the total expenditures for Other Current Operating Expenses.

Boards of Education are mandatory under State Law. Provision for salaried members of the Board of Education was made in the City of Rochester in what is commonly referred to as the Dow section of the Charter, in 1898. Later on, in 1902, this provision was incorporated as a part of the State Law.

**The Superintendent of Schools.** This officer is required by State Law. He is appointed by the Board of Education for a term of six years at a salary fixed by the Board. The length of term is made mandatory by State Law, but the salary is optional with the local Board of Education.

The Superintendent of Schools is the chief executive of the Board in all matters affecting the welfare of the schools. Many of his duties are fixed by law. The Board of Education, for example, in accordance with State Law, can appoint teachers, principals, supervisors, and others engaged in the work of instruction only upon the recommendation of the Superintendent of Schools. In like manner the Superintendent of Schools must make recommendation to the Board in all matters affecting courses of study, text books, and the like.

The salary of the Superintendent of Schools in 1923 was \$8,000 a year. The total expense of maintaining this office during the year 1923, including clerical assistance, supplies, and the like, amounted to \$10,770.22. The share of this amount to be charged to the elementary schools was \$5,878.82. This share was 0.17% of the total expenditures for elementary schools during the year and 0.29% of the total expenditures for other current operating expenses.

**Assistant Superintendents of Schools.** Two Assistant Superintendents are employed by the Board of Education. These officers are not specifically required by the State, although the maintenance of public schools naturally implies such staff of administrative and supervisory officers as local Boards of Education may deem necessary.

One Assistant Superintendent has general charge of all the practical arts and vocational work in the schools. He is held primarily responsible for courses of study, supervision of instruction, and determining the nature and amount of supplies and equipment required for this work. It is his duty also to serve as the connecting link between these lines of vocational education, particularly in the industrial arts, and the industries of the city. The other Assistant Superintendent is in charge of the Bureau of Efficiency and Research. In the eleven years, however, since this office was established the demands upon the central office, due to growth and the expansion of work, have been such as to require practically the full time of this Assistant for more general administrative affairs, including attendance, reports required by state and local officials and such other matters as may be required by the Board of Education and the Superintendent of Schools.

The first Assistant Superintendent of Schools in Rochester was appointed in 1906. In 1913 another Assistant was appointed.

During the year 1923 each Assistant Superintendent of Schools was paid a salary of \$5,500. The total amount paid for maintaining these offices during the year, including clerical assistance, supplies, and the like, was \$21,245.80. The share of this to be charged to the elementary schools was \$11,596.81. This share was 0.34% of the total expenditures for elementary schools during the year and 0.58% of the total expenditures for other current operating expenses.

**Superintendent of Buildings.** This office was established at the discretion of the Board of Education in 1913. The duties of the Superintendent of Buildings may be broadly grouped under three headings:

1. The immediate direction of all work pertaining to the maintenance and repair of existing buildings.

The public school system of Rochester operates fifty-nine buildings at an approximate value, with their sites, of \$18,000,000.00. Sound business judgment requires that the repair and operation of these buildings shall be under the immediate direction of a competent head with such assistants as may be needed to safeguard the physical school plant and to keep that plant in condition at all times to be used most satisfactorily for school purposes.

2. The immediate direction of all work pertaining to the construction of new buildings.

In general, new school buildings are erected according to the plans and specifications of an outside architect employed by the Board of Education when needed. In this connection the importance of having a representative from the Board of Education who is familiar with all phases of building construction is apparent. The Superintendent of Buildings serves as this

representative. Upon the department rests the primary responsibility of locating satisfactory school sites; of ascertaining the nature and amount of school building facilities required; of preparing in detail the requisition for such school building through conferences with the Superintendent of Schools, the principals, and others involved; of securing the approval of this requisition from the Board of Education and then of passing it on to the architect; of checking through plans and specifications as the work of preparing these proceeds; and of supervising the work while the building is being erected.

### 3. The preparation of plans and specifications for certain new buildings.

It is apparent that to carry through the procedure stated above when a new school building is required, and to conduct intelligently the work of repairing present buildings, demands the employment in the Department of Buildings of competent architects and draftsmen. That each such person employed may be steadily and advantageously employed, the Board of Education directs that the Department of Buildings shall prepare plans and specifications for new elementary school buildings in so far as this can be done in a way consistent with their other duties. That is to say, these persons, when not required for the immediate demands of duties (1), (2), stated above, devote their time to the preparation of plans and specifications for new buildings. The Superintendent of Buildings is immediately in charge of all this work.

The salary of the Superintendent of Buildings for the year 1923 amounted to \$5,000. The salary of the Assistant Superintendent of Buildings was \$3,250. The total cost of maintaining the department during the year, including clerical assistance, draftsmen, architects, and other personal service, together with all supplies, and the like, was \$26,180.91. The share of this to be charged to the elementary schools was \$14,290.59. This share was 0.41% of the total expenditures for elementary schools during the year, and 0.71% of the total expenditures for other current operating expenses.

**Purchasing Agent.** In 1922 the Board of Education opened a general storehouse to which all supplies required for the schools are sent and from which they are delivered as needed. This was for the obvious purpose of enabling the Board to purchase its supplies more economically.

The immediate direction of all this work is under the Secretary of the Board of Education.

The salary of this officer for the year 1923 was \$4,100. The total cost of maintaining this department during the year, including clerical assistance, supplies, and the like, but not including the Secretary's salary, was \$17,538.29. The share of this to be charged to the elementary schools was \$9,573.10. This share was 0.28% of the total expenditures for elementary schools during the year and 0.47% of the total expenditures for other current operating expenses.

**The Confidential Examiner of Accounts.** This is the name given to the comptroller of the Board of Education by the Civil Service Commission.

The position was established in 1921 at the discretion of the Board. In general it is the duty of this office to prepare in detail the budget submitted by the Board of Education to the Board of Estimate and Apportionment and the Common Council; to keep an exact record of all aid due and received from the State and other sources; to keep the Board of Education informed at all times with reference to expenditures in each of the several departments; and to prepare such financial reports as the Board of Education may from time to time require.

The salary of this officer for the year 1923 was \$4,250. The total cost of maintaining the office, including all personal service and supplies required, was \$13,633.40. The share of this to be charged to the elementary schools was \$7,441.66. This share was 0.22% of the total expenditures for elementary schools during the year and 0.37% of the total expenditures for other current operating expenses.

**The Director of Teacher Employment and Certification.** This position was established at the discretion of the Board of Education in 1921.

This officer has charge of the assignment of all teachers required in the elementary schools; negotiates with the State concerning the certification of all teachers; attends to the renewal of all teachers' licenses; keeps a record of all teachers to be reported to the State as the chief basis for State financial aid; represents the Superintendent of Schools on the Board of Examiners; and performs such other services as may be required in connection with the employment, assignment and certification of teachers.

The salary of this officer for the year 1923 was \$4,020. The total expense for maintaining the office, including clerical assistance, supplies, and the like, was \$7,163.54. The share of this to be charged to the elementary schools was \$3,910.15. This share was 0.11% of the total expenditures for elementary schools during the year and 0.19% of the total expenditures for other current operating expenses.

**Attendance Officers.** The State Compulsory Education Law requires the employment of officers whose work it shall be to investigate attendance; to take parents into court when necessary; and to perform such other services as may be required to enforce properly the compulsory education law. For this purpose the Board of Education employs four full time attendance officers and one for part time service.

The salary of each full time attendance officer during the year 1923 was \$1,800.00, while the salary of the one part time attendance officer was \$409.00. The total amount spent for maintaining this Attendance Department for the year, including clerical assistance, supplies, and the like, was \$7,941.77. The share of this to be charged to the elementary schools was \$4,334.94. This share was 0.12% of the total expenditures for elementary schools during the year and 0.21% of the total expenditures for other current operating expenses.

**Department of Work Permits.** In the Legislature of 1921 the State Law was amended to provide for transferring the responsibility for granting work permits from the Health Bureau to the Board of Education. The



Board has not as yet placed a special officer in charge of this work. Instead it has assigned the direction of this department to the Director of Manual Training as part of his duties. This arrangement, however, is but temporary. The fact that during the school year 1922-1923 over six thousand applications for work permits were examined and five thousand four hundred eighty-five permits granted, indicates the range and the importance of the work and suggests the need in the near future of one officer all of whose time shall be given to the direction of the general work of guidance, work permits, and placement of those who go out from the schools to work.

The Director of Manual Training was paid a total salary during the year 1923 of \$4,020.00. The share of this to be charged to the direction of the Work Permit Department was \$2,010.00. The total cost of maintaining the department, including clerical assistance, supplies, and the like, was \$6,326.34. The share of this to be charged to the elementary schools was \$3,453.16. This share was 0.100% of the total expenditures for elementary schools during the year and 0.172% of the total expenditures for other current operating expenses.

### Summary

The following table summarizes the expenditures of the above named administrative departments for the calendar year 1923:

**TABLE 22**  
**Expenditures During the Year 1923 for All Central Business**  
**and Educational Administration, Itemized by Departments**

Department	Expenditures
The Board of Education and the Secretary of the Board	\$ 12,837.83
The Superintendent of Schools	10,770.22
Assistant Superintendents of Schools	21,245.80
Superintendent of Buildings	26,180.91
The Purchasing Department	17,538.29
Confidential Examiner of Accounts	13,633.40
Director of Teacher Employment and Certification	7,163.54
Attendance Officers	7,941.77
Department of Work Permits	6,326.34
Office Building, Supplies, etc.	7,611.76
Printing School Reports, etc.	2,588.62
Lunch Room Management	3,640.00
	<hr/>
	\$137,478.48

The above table shows that during the calendar year 1923, the Board of Education spent for the general administrative overhead of all the public schools in the system, the sum of \$137,478.48. The total expenditures of the Board, during the same year, for all Other Current Operating Expenses, amounted to \$2,006,585.75. This means that of the total expenditures for Other Current Operating Expenses for the year 6.8% was used for General Administration.

The following table summarizes the expenditures for the Central Business and Educational Administration of the Elementary Schools, for the calendar year 1923:

TABLE 23

**Expenditures for Central Business and Educational Administration  
Pro Rated for the Elementary Schools, for the Year 1923**

Department	Expenditures
The Board of Education and the Secretary of the Board	\$ 7,007.40
The Superintendent of Schools	5,878.82
Assistant Superintendents of Schools	11,596.81
Superintendent of Buildings	14,290.59
The Purchasing Department	9,573.10
Confidential Examiner of Accounts	7,441.66
Director of Teacher Employment and Certification	3,910.15
Attendance Officers	4,334.94
Department of Work Permits	3,453.16
Office Building, Supplies, etc.	4,154.80
Printing School Reports, etc.	1,412.97
Lunch Room Management	1,986.85
	<hr/>
	\$75,041.25

The total cost of maintaining the Elementary Schools for the year 1923, was \$3,463,250.49. Of this amount \$75,041.25 was spent for this central administrative overhead. This amount was, accordingly, 2.2% of the total expenditures.

**Some Comparisons.** In what follows a comparison is made between the expenditures for personal service, or salaries, for these departments of Central Business and Educational Administration during the year 1912 and the year 1923. Since salaries make up approximately 87% of the total expenditures for maintaining these departments, this comparison of salary expenditures is important.

The following table is designed to show four things, as follows:

1. The departments that are actually found at the present time.
2. The departments that are found today but that were not found in 1912. This will be indicated in each case by the fact that no expenditures for the department concerned are listed for 1912.
3. The actual amount of salary paid to the directing head in 1912, the amount paid in 1923, and the per cent increase of 1923 over 1912.

4. The amount paid for all personal service for the department, including the salary of the directing head, during the year 1912, the amount paid during 1923, and the per cent increase of 1923 over 1912.

TABLE 24

**Comparative Salary Expenditures for Central Business and Educational Administration, 1912 and 1923**

Department	Salary of Head 1912	Salary of Head 1923	Per Cent Increase 1923 over 1912	All Salaries 1912	All Salaries 1923	Per Cent Increase 1923 over 1912
Board of Educ. Member	\$1,200	\$1,200	0%	\$ 6,000.00	\$ 6,000.00	0%
Secretary of Board	2,040	4,100	101%	4,256.66	5,545.50	30.3%
Superintendent of Schools	5,000	8,000	60%	5,900.00	9,920.00	68.1%
Asst. Superintendents	4,000	5,500	37.5%	4,405.30	19,846.24	350.5%*
Superintendent of Buildings		5,000			23,828.30	
Purchasing Department	**	**			14,656.86	
Con. Exam. of Accounts		4,250			12,828.60	
Board of Examiners				752.00	752.00	
Teacher Employment and Certification		4,020			5,668.68	
Attendance Officers	1,200	1,800	50%	2,741.14	7,733.12	182.1%
Dept. of Work Permits		2,010 equals ½ salary			5,119.13	
Office Bldg., Supplies, etc.				824.00	3,350.60	306.6%
Printing Reports, etc.					705.50	
Lunch Room Management	1,600	3,640	127.5%	1,600.00	3,640.00	127.5%
				\$26,479.10	\$119,594.53	351.6%

**Factors Responsible for Increased Expenditure.** It will be remembered that the increased salary expenditures of classroom teachers, for the year 1923 over the year 1912, were accounted for by four factors:

1. Growth in the number of pupils to be cared for and the consequent increase in the number of teachers required.
2. Increased salary schedules due to the depreciation of the dollar and the increased training required of teachers.
3. The addition of special subject teachers made for improving the effectiveness of the work.
4. The addition to the elementary school in 1923 of activities that were not found in 1912 and activities for which salary expenditures were required. The two activities thus listed were nutrition class teachers and teachers of instrumental music.

In the main, these four principles may likewise be applied to increased expenditures for this Central Business and Educational Administration during the eleven years under consideration.

**Growth.** On the 31st day of December, 1912, the total number of persons registered in the day schools of the city for instruction, during the

\*Including Records and Research.

\*\*The Secretary of the Board acts as Purchasing Agent. Salary shown under Secretary.

calendar year then closing was 30,408. The total number registered on December 31, 1923, was 56,404. This in and of itself shows an increase or growth in the number of regular day school pupils in the public schools of Rochester, during the period under review, of 85.5%.

The total number of teaching positions certified to the State at the close of the school year in June, 1912, was eight hundred and thirty-six. The corresponding figure at the close of the school year in 1923, was seventeen hundred and thirty-one. There had, accordingly, been an increase of 107.1% in the number of teaching positions during this eleven year period.

In 1912 the total number of schools of all kinds in the public school system of Rochester, was thirty-nine. The total number in 1923 was fifty-eight, or an increase during the eleven year period of 48.7%.

There have, furthermore, been extended types of work since 1912. In 1912, for example, neither the continuation school nor the junior high school had as yet been organized in Rochester. The first junior high school here was opened in September, 1915. The continuation school was made compulsory by State Law, beginning September, 1920. In 1912 the work of the Special Education Department and of the Evening School was entirely optional with the Board of Education. Each of these departments has since been made mandatory under State Law. It is, of course, apparent that growth in types of service rendered has been an important factor in the increased service required for Central Business and Educational Administration.

During the year 1912, the Board of Education spent, regardless of the source from which the funds were secured, the total of \$1,252,754.69 for instructional service, other current operating expenses, and debt service. The corresponding figure for the year 1923 was \$6,549,838.20.

It is, of course, not possible to determine with mathematical precision any ratio between growth in any one of the items above listed and the increased expenditures for a given department of Central Business and Educational Administration. Each member of the Board of Education received the same salary in 1923 that he received in 1912, so far as the records are concerned. Neither was there any increase in the number of board members required. The very nature of the work of the Board of Education is such as to enable a board of five members to determine matters of general policy in 1912 as well as in 1923. In passing, however, it may be worth noting that so far as the purchasing power is concerned each Board of Education member received in 1923 a salary of \$705.90 as compared with the salary of \$1,200.00 in 1912.

In the case of other departments, however, it would seem that no argument would be required to justify the addition of the position since 1912. The Confidential Examiner of Accounts is one case in point. In 1912 this whole financial accounting work was a part of the duties of the Secretary of the Board of Education. Today it is under the direction of a single head who gives his entire time to this important work. It is believed that the above statements as to growth will likewise adequately account for the addition of such other officers or departments as Table 24 suggests.

**Increased Salary Schedules.** Table 24 shows the increase in the salary paid to the directing head of each of the above named departments, ranging from 0% in the case of each member of the Board of Education, to 60% in the case of the Superintendent of Schools. This comparison, of course, can be made only for the positions that were found both in 1912 and in 1923.

In the following table the 1912 salaries of the directing heads are shown in the first column. In the second column the 1923 salaries are shown in terms of purchasing power based on the index figure of 170. For example, the Secretary of the Board received a salary of \$2,040 in 1912. In 1923 he received \$4,100. The purchasing power of the 1923 salary was \$2,411.77 or an increase in purchasing power over that of 1912 of but 18.2%. The other salaries shown in the above table showed a decrease in purchasing power for 1923.

TABLE 25

**Relative Salaries of Directing Heads of Central Business and Educational Administration, 1912 and 1923, in Terms of Purchasing Power**

Department	1912	1923	Per Cent Per Cent	
			Increase	Decrease
Board of Education Member	\$1,200	\$ 705.90		41.2%
Secretary of Board	2,040	2,411.77	18.2%	
Superintendent of Schools	5,000	4,705.89		5.9%
Assistant Superintendent	4,000	3,235.30		19.1%
Attendance Officers	1,200	1,058.83		11.8%

**Increased Effectiveness.** It is not possible here to point out the relation of increased expenditures in the same direct way that it was possible to discuss them in connection with the salary expenditures for the class room teachers. On the other hand, this has been a very real factor. Prior to the year 1912, for example, only the most general financial accounting plan was in operation at the Central Office. During the year 1912 the Board of Education brought to Rochester representatives from the New York Bureau of Municipal Research to set up a financial accounting plan that would make more detailed analyses of expenditures possible. This plan, however, did not go into operation until 1913. It has subsequently been revised to the point where it is possible to secure today practically any reasonable analysis of expenditures that demands may require. There are, consequently, heavily increased expenditures in this department due to efforts made to improve the effectiveness of the work. The same principle holds with reference to other departments.

**Additional Activities Requiring Additional Salary Expenditures.** The only clear case of this type is found in the Director of Work Permits. Prior to 1921 the Board of Education had no responsibility for this work. As has been stated earlier all applications for work permits had been investigated and all work permits granted by the Health Bureau. No attempt has been made here to discuss other items of expenditure than salaries for personal service. In the first place, the nature of the records kept

in 1912 would scarcely make accurate comparisons possible. Furthermore, it is exceedingly doubtful whether the returns in information gained would be at all commensurate with the time and energy spent. While it might be of interest, for example, to know the comparison between the cost of ink used in 1912 and the cost of the ink used in 1923, nevertheless, all things considered, itemized expenditures of this type, so far as this report is concerned, are wholly impracticable. Let it be said, however, that such information will be furnished so far as the records make possible, to any person or organization who may be interested in securing such facts.

## SECTION 2

### CENTRAL SUPERVISION OF INSTRUCTION

#### Introductory Questions

1. What supervision of instruction is provided for the Elementary Schools from the Central Office?
2. What, briefly, are the duties of each supervisory department?
3. What were the total expenditures for each supervisory department for the year 1923, and what part of these expenditures was chargeable to the Elementary Schools?
4. What were the aggregate expenditures for Central Supervision in 1923, and what per cent of the entire budget were these expenditures?
5. What has been the growth in Central Supervision since 1912?
6. What comparisons can be made between expenditures for Central Supervision in 1912 and corresponding expenditures in 1923, and what factors are responsible for the increase?

**Preliminary Statement.** It is always pertinent to inquire whether Central Supervision is holding too large a place in the work of the public schools, notwithstanding the fact that it is a question to which there is no final and convincing answer. Like many other matters it is all a question of judgment and in the last analysis all that school authorities can do is to exercise their best judgment. As a general principle, however, it can be safely stated that there is little, if any, danger at any time of too much supervision provided only that the supervision is of the right kind. If it is not of the right kind then any amount is too much.

Supervision when properly conceived and conducted is simply intelligent and sympathetic leadership. It represents an attempt to avoid two extremes, either of which makes for waste, discontent, and inefficiency. On the one hand lies the extreme of allowing each person to be a law unto himself with all the chaos that results. There will always be those in any organization

who will object to any kind of supervision primarily because there will always be those who are unwilling to adjust themselves to any standards except those which are self imposed. This is equally true in industry and in every other walk of life. The public school is no exception to the rule. To indulge the caprice of such is to go the way of chaos with its result in waste and inefficiency. The other extreme is that of minute and tyrannical domination which robs the teacher of freedom within the law and thereby takes from him the priceless satisfaction that comes from constructive work. Between these two extremes lie the golden mean, always exceedingly difficult of attainment, of intelligently and sympathetically leading. Such leadership is absolutely essential in any organization. The activity that does not merit such leadership does not merit a place in the public school system.

**Organization and Salary Schedule of the Supervisory Department.** Each Supervisory Department has as its chief officer a Director. The very nature of the duties which fall to this directing head demands that a certain amount of time shall be given to the work of organizing and conducting the work of the department. It is understood, however, that each of these officers is essentially a supervisor of instruction and that, consequently, nothing can compensate for his failure to spend all possible time in the class rooms, there inspecting and supervising the instruction given. To this end clerical assistance is provided, so far as finances make possible, to relieve these directing heads of the clerical and routine work connected with the office.

Next in rank to the Director is the Supervisor. In the Department of Elementary Grades and Kindergartens, for example, two supervisors are provided. One of these devotes her time chiefly to the work of supervision in the kindergarten and the first, second and third B grades, while the other confines herself to the work of supervision in the third A, fourth, fifth and sixth grades.

Ranking next to the Supervisor is the Supervising Teacher. The supervising teacher is entirely free from any responsibility, except that of supervision and demonstration teaching in the class room. In the case of the Director, and to a lesser extent in the case of the Supervisor, there must of necessity be a certain amount of inspection as opposed to supervision, since these officers are held responsible for a knowledge of the working conditions in all the elementary schools of the city. The Supervising Teacher, on the other hand, is for the most part assigned to a certain group of schools and her entire time is available for the principals and the teachers within these schools.

The salary schedules for the Central Supervisory Departments are as follows:

1. Experienced teachers only are selected for such positions. The initial salary, therefore, shall be a matter of special action by the Board of Education and shall be determined by the nature of the position, ability and educational qualifications of the one selected and the principle of supply and demand.

2. The normal annual increment for persons holding such positions, shall be not less than \$300.00 in the case of Educational Directors, and \$150.00 in the case of Supervisors, and the number of such increments shall be not less than eight, provided that no increment shall advance any Director beyond the maximum salary set for the group in which the department concerned is classified. These groups and the maximum salary for each, shall be as follows:

- a. Department of Junior High School Grades, and Department of Elementary Grades and Kindergartens. Maximum salary \$4,800.00
- b. Department of Vocal and Instrumental Music, Department of Health Education, Department of Art Education, and Department of Commercial Education. Maximum salary 4,500.00
- c. Department of Special Education, Child Study Department, Department of Teacher Employment and Certification, Department of Penmanship, Visiting Teacher Department, and Department of Manual Training and Work Permits. Maximum salary 4,200.00

#### **Departments, Functions and Costs of Central Supervision of Instruction.**

The following list will comprise all departments of central supervision even though the work of any given department may not concern the work of the elementary schools.

**Department of Elementary Grades and Kindergartens.** This department has one Director and two Supervisors. There are also available, for the directing head of this department, certain demonstration teachers who are temporarily taken from their class rooms from time to time when changes are made in the courses of study. These teachers have been classed rather as special subject teachers and both their function and compensation are discussed on pages 25 and 135.

This department confines its work entirely to the kindergartens and the first six grades of the elementary school. While the department concerns itself primarily with the book subjects taught in the elementary school it, nevertheless, has also the responsibility for adjustments in time schedules and any other conditions that affect the work in these elementary grades. In general, there rests upon this department the immediate responsibility for ascertaining the extent to which the course of study is being carried out in the different elementary schools; in preparing and recommending to the Superintendent of Schools such changes in the course of study as may from time to time be required; for becoming sufficiently familiar with the work of each teacher; to know from the standpoint of the system as a whole where both the weak points and the strong points are to be found; and to counsel with teachers and principals for the purpose of strengthening all work as much as possible; and to be informed with reference to such text books and other equipment as may be required and best adapted for



use in the elementary schools of Rochester. In short, this department is held responsible for anything bearing on the supervision of instruction in the elementary grades.

The salaries actually paid to the members of this staff during the year 1923 were as follows:

Director	\$4,004.00
1 Supervisor	2,710.00
1 Supervisor	2,360.00
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	\$9,074.00

The total expense of conducting this department during the fiscal or calendar year 1923, including salaries for the staff, clerical assistance, supplies, and all other items involved, was \$26,652.47.

Since the department has no responsibility except in connection with the elementary school, the entire cost of maintaining the department is chargeable to elementary school expenditures.

**Department of Junior High School Grades and Citizenship.** This department consists of one Director and one Supervisor. The Supervisor, however, devotes her entire time to education for the adult immigrant.

This department has as its primary responsibility the general supervision of the academic or book work of the seventh, eighth, and ninth, or Junior High School grades. Practically, however, this department does not have any responsibility for the supervision of instruction in such ninth grades, or first year high school work as is to be found in the first year of the four year course in the Senior High Schools. In other words, the department confines its attention, so far as the day schools are concerned, to the seventh and eighth grades in such elementary schools as have not yet come into the Junior High School type of organization and to the three grades found in the Junior High Schools. By frequent, definitely scheduled visits, and by institutes and conferences, the department aims to unify and improve the instruction in all the Junior High School grades. The department also has the immediate supervision of all work that is done for the adult immigrants in the public schools.

The salaries actually paid the members of the staff in this department during the year 1923 were as follows:

Director	\$5,000.00
Supervisor	2,394.00
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	\$7,394.00

The entire expense of conducting the department, including salaries for the staff, clerical assistance, supplies, and the like, amounted to \$6,219.04.\* The share of this to be charged to the elementary schools was \$1,243.81. This was 0.036% of the total expenditures for the elementary schools during the year 1923 and 0.062% of the total expenditures for other current operating expenses.

\*One-half of the director's time has been charged to Citizenship Instruction.

**Department of Health Education.** This department, during the year 1923, consisted of the Director, three Supervisors, and three Supervising Teachers.

The department is held responsible for all work in health education and recreation in the entire public school system regardless of whether that work is done in the elementary school, the high school, the city normal school, or elsewhere.

The salaries actually paid the members of the staff of this department during the year 1923 were as follows:

Director	\$4,216.00
1 Supervisor	3,044.00
1 Supervisor	2,860.00
1 Supervisor	2,746.00
1 Supervisor	1,520.00
1 Supervising Teacher	1,984.00
1 Supervising Teacher	2,136.00
1 Supervising Teacher	1,810.00
	<hr/>
	\$20,316.00

The entire cost of maintaining this department during the year 1923, including all salaries for the staff, clerical assistance, supplies, and the like, amounted to \$28,611.40. The share of this to be charged to the kindergartens and the regular grades of the elementary school was \$17,166.84. This was 0.496% of the total expenditures for elementary schools during the year 1923 and 0.855% of the total expenditures for other current operating expenses.

Practically the entire time of one Supervisor in this department is devoted to the after-school recreational clubs for boys; while practically the entire time of another Supervisor is taken for organizing and directing the corresponding work for girls. These clubs are classed under auxiliary agencies and, consequently, the item of expense for this supervision will be included under expenditures for Health Education in the regular grades of the elementary school.

**Department of Art Education.** This department consists of one Director, one Supervisor, and one Supervising Teacher.

This department, like the department of health education, has supervisory powers over the drawing work and closely allied lines of art education in all the schools of the system. In addition, the department exercises certain supervisory powers in connection with the occupation work and general hand work of the children in the primary grades of the elementary schools. Since work in art education of this general type is found in all grades from the kindergarten on through the junior and senior high schools and the city normal school, this department is naturally held responsible for so organizing and relating the work of the different units as to make it a continuous and systematic development in this field.

The salaries actually paid the members of the staff of this department during the year 1923 were as follows:

Director	\$4,116.00
1 Supervisor	3,200.00
1 Supervising Teacher	2,428.00
	<hr/>
	\$9,744.00

The total cost of maintaining the department, including salaries for the staff, clerical assistance, supplies, and the like, amounted to \$9,801.47, for the year 1923. The share of this to be charged to the elementary schools was \$6,125.95. This share was 0.177% of the total expenditures for elementary schools during the year and 0.305% of the total expenditures for other current operating expenses.

**Department of Music.** This department during the year 1923 consisted of one Director and two Supervisors throughout the year; of three Supervising Teachers from January 1st until the close of school in June, but of one Supervising Teacher only from the opening of school in September until the close of the school year. It was believed that the increase in the number of special subject teachers of music in the elementary schools had reached the point where a reduction in the amount of central supervision was warranted. In other words, the increased central supervision due to growth in the system was not sufficient to offset the lessened demand that had come through having special subject teachers of music rather than regular grade teachers teaching the vocal music work in the grades.

This department has supervision over all vocal and instrumental music taught in all the schools of the system. One of the Supervisors in this department devotes his entire time to the supervision of instrumental music, while the other devotes his time chiefly to the vocal music taught in the different high schools of the system. The Supervising Teachers are employed in the elementary schools only.

Vocal music is begun in the kindergarten and carried on through the elementary schools and the junior high schools as a subject required of all pupils. It is elective in the senior high schools, but is again required of all teachers in training in the city normal school.

The salaries actually paid the members of this staff during the year 1923 were as follows:

Director	\$ 4,220.00
1 Supervisor	3,440.00
1 Supervisor	3,440.00
3 Supervising Teachers, Jan. to June	4,397.00
	<hr/>
	\$15,497.00

The total cost of maintaining this department for the year 1923, including all salaries for the staff, clerical assistance, supplies, and the like, amounted to \$16,282.95. The share of this to be charged to the elementary schools was \$7,444.14. This was 0.29% of all expenditures for the elementary

schools during the year 1923 and 0.37% of the total expenditures for other current operating expenses.

**Department of Penmanship.** This department consists of a Director on half time and two Supervising Teachers.

The department has supervision over all the penmanship taught in all the schools in the system, although practically this power is not exercised except in an advisory capacity over the penmanship taught in the senior high schools. In these senior high schools the penmanship is taught to commercial students only and, consequently, the work is under the direction of the director of business education who will be discussed later.

The salaries actually paid the members of the staff of this department during the year 1923 were as follows:

Director	\$2,110.00
1 Supervising Teacher	2,540.00
1 Supervising Teacher	2,340.00
	<hr/>
	\$6,990.00

In addition to the staff stated above, there is employed in the office of this department one expert penman, who devotes all her time to the correction of such penmanship work as may be brought to the office from the various schools and to the preparation of such material as in the judgment of the Director may be required. The salary actually paid this assistant during the year 1923 was \$1,296.38.

The total cost of maintaining this department, including salaries for the staff, clerical assistance, supplies, and the like, for the year 1923, amounted to \$8,386.28. The share of this to be charged to the elementary school unit was \$7,966.97. This was 0.230% of the total expenditures for the elementary schools and 0.397% of the total expenditures for other current operating expenses.

**Department of Home Economics.** The Directorship of this department is now vacant. The department, accordingly, as organized during the year 1923, consisted of one Supervisor in charge of the Domestic Science division of the organization, and one Supervisor in charge of the Domestic Art division. There is also a Special Supervisor of all Home Economics work taught in the junior high schools.

This department directs and supervises all the Home Economics work taught in the system.

The salaries actually paid the members of this staff during the year 1923 were as follows:

1 Supervisor	\$3,016.00
1 Supervisor	2,862.00
1 Supervisor	2,910.00
	<hr/>
	\$8,788.00

The total cost of maintaining the department for the year 1923, including salaries for the staff, clerical assistance, supplies, and the like, amounted

to \$10,394.96. The share of this to be charged to the elementary school was \$7,378.91. This was 0.213% of all expenditures for elementary school purposes for the year 1923 and 0.368% of all expenditures for other current operating expenses.

**Department of Manual Training.** This department consists of the Directing Head only. The adoption, by the Board of Education, of the policy of discontinuing such work in Manual Training in the elementary schools as may require a special subject teacher, wherever these elementary schools have become a part of the junior high school organization, is naturally diminishing the demands made upon this department. It was primarily because of this that the Director of this department, as has been stated earlier in the report, was given charge of the matter of investigating and granting of work permits when in 1921 that work was placed under the Board of Education by the Legislature.

The salary actually paid the Director of this department during the year 1923 was \$4,020. Of this amount \$2,010 is to be charged to the direction and supervision of instruction in Manual Training, and \$2,010 to the Work Permit Department. The total cost of maintaining the department for the direction and supervision of instruction in Manual Training for the year 1923, including the salary of the Director, clerical assistance, supplies and the like, amounted to \$4,532.57. This was 0.131% of the total expenditures for elementary schools and 0.226% of the total expenditures for other current operating expenses.

**Department of Special Education.** This department consists of the Director and two Assistants. These Assistants devote their time to the supervision of those who are teaching in this Unit for Special Education; to the large amount of home visiting required for conducting this work intelligently, and to conferences with parents and representatives of the many agencies in the city with which this department comes into contact. The department has supervision over all types of education organized to care for the child that differs so much from the normal as to require special treatment. The child, for example, who is three years or more retarded in his regular school progress must, according to the State Law, be placed in a special class the number of pupils in which shall not exceed fifteen in number. This provision is specifically made for the purpose of guaranteeing that special attention which such children require. There are likewise special classes for the crippled children, children with defective speech, and so on. These are all classed under the Unit for Special Education and, consequently this department has no supervisory powers over any other one of the seven units of school organization that go to make up the system.

The salaries actually paid the members of this staff during the year 1923 were as follows:

Director	\$4,024.00
1 Assistant	2,480.00
1 Assistant	2,322.00
	<u>\$8,826.00</u>

The total cost of maintaining this department, including salaries for the staff, clerical assistance, supplies, and the like, for the year 1923, amounted to \$11,494.64. This was 0.573% of the total expenditures for other current operating expenses.

**Department of Business Education.** The staff here consists of one Director. This officer has charge of the supervision of all work in business or commercial education wherever taught in the public schools of Rochester. For the most part the time and attention of the department are confined to the junior and senior high schools.

The salary actually paid this Director during the year 1923 was \$4,104.00.

The total cost of maintaining this department, including the salary for the Director, clerical assistance, supplies and the like, amounted to \$5,315.42 for the year 1923. No part of this was chargeable to the elementary schools. This share, however, was 0.265% of the total expenditures for other current operating expenses.

**The Child Study Department.** This department during the year 1923 consisted of the Director, and six Assistants. Strictly speaking this is not a department for the supervision of instruction. As the name of the department implies, however, the work of the department is primarily made for the purpose of facilitating instruction, and, consequently, the expenditures are included in this section dealing with central supervision.

Both the Directing Head of this department and the Assistants in the department are, for the most part, experienced teachers and trained psychologists. Broadly, it is the work of this department to ascertain from all available sources the abilities of pupils to make school progress and to place the information thus secured in the hands of principals for their use in organizing classes and grades. The usual intelligence tests are naturally used by this department, although they constitute but one of the factors involved while the study of the department is underway in a given case. The judgment of the class room teacher, the results secured in school work previously done, the physical condition of the child as determined by a competent physician under the direction of the Health Bureau, but working in connection with this Child Study Department, are other factors that always enter into consideration before the judgment of the department is given in any particular case.

The extent to which principals make demands upon this Child Study Department in connection with the trying individual problems which inevitably come in special cases is perhaps the best evidence that can be given of the value of the department to the school system. It has already become impossible to meet these demands with the staff available. This, however, has been due largely to the fact that every pupil who now enters any one of the four junior high schools is reported upon by this department for the purpose of enabling these schools to group the pupils according to their ability to progress.

The salaries actually paid the members of the staff in this department during the year 1923 were as follows:

---

Director	\$ 3,396.00
1 Assistant	2,360.00
1 Assistant	2,324.00
1 Assistant	2,200.00
1 Assistant	2,060.00
1 Assistant	2,074.00
1 Assistant	1,660.00
	<hr/>
	\$16,074.00

The total cost of maintaining this department, including salaries for the staff, clerical assistance, supplies, and the like, amounted to \$20,403.08 for the year 1923. The share of this to be charged to the elementary schools was \$18,362.78. This was 0.530% of the total expenditures for elementary schools and 0.915% of the total expenditures for other current operating expenses.

**Department of Visiting Teachers.** This department, like the department of Child Study, is not strictly a department for the supervision of instruction. Visiting Teachers who are engaged in and regularly form a part of the elementary schools have been classed earlier among the administrative and supervisory assistants rather than among the class room teachers. The central office Director, however, would seem to be related more closely to the work of instruction than to the organization of either business or educational administration.

The department consists of one Directing Head, one Assistant whose entire time is devoted to the investigation of all cases of mal-adjustment at school that require the attention of the central office; and one Assistant the larger part of whose time is devoted to the investigation of all cases that come up for consideration in connection with the Children's Memorial Scholarship Fund.

As a working principle the individual school through its Visiting Teacher, where assigned, goes to the limit of its power in handling all the cases of maladjustments in the life of the child that affect his progress in the school. Until the resources of the individual school are thus exhausted the case does not come to the central office for attention. When the resources are thus exhausted, however, the case is usually one for court action. Before such action is taken special study is made of each case by the central Department of Visiting Teachers.

It is the function of the Director of this Visiting Teacher Department to determine, through all possible means, exactly the type of service that is to be rendered by the Visiting Teacher and then to see to it that this teacher devotes her time to this type of service and no other. It is the Director's function also to keep in the closest possible touch with all relief and remedial agencies that the community may afford in order that all the facilities possible may be at the disposal of the school in its treatment of individual cases.

The salaries actually paid the members of the staff of this department during the year 1923 were as follows:

## CURRENT OPERATING EXPENDITURES

135

Director	\$3,172.00
1 Assistant	1,484.00
1 Assistant	800.00
	<hr/>
	\$5,456.00

The total cost of maintaining the department, including salaries for the staff, clerical assistance, supplies, and the like, amounted to \$8,275.23. The share of this to be charged to the elementary school was \$6,024.37. This was 0.17% of the total expenditures for the elementary school during the year 1923 and 0.3% of the total expenditures for other current operating expenses.

## Summary

The following table summarizes the scope, costs, and distribution of central direction and supervision of instruction.

**TABLE 26**  
**Distribution of Costs of Central Supervision of Instruction**

Department	Total Cost of Maintenance 1923	Amt. Chargeable to Elem. School Unit 1923	Per Cent of Total Elem. Sch. Costs of Instruction	Per Cent of Total Costs for Supervision of Instruction
Adult Education	\$ 2,758.81			1.7%
Americanization	4,389.71			2.7
Art	9,801.47	\$ 6,125.95	.2	6.0
Child Study	20,403.08	18,362.78	.5	12.4
Commercial Subjects	5,315.42			3.2
Health Education	28,611.40	17,166.84	.5	17.5
Junior High Schools	6,219.04	1,243.81	.04	3.8
Kindergarten and Elem. Grades	26,652.47	26,652.47	.8	16.3
Manual Training	4,532.57	4,532.57	.13	2.8
Music	16,282.95	7,444.14	.2	10.0
Penmanship	8,386.28	7,966.97	.2	.51
Special Classes	11,494.64			7.0
Visiting Teachers	8,275.23	6,024.37	.2	5.1
Home Economics	10,394.96	7,378.91	.2	6.4
	<hr/>	<hr/>	<hr/>	<hr/>
	\$163,518.03	\$102,998.81		100%

**Some Comparisons.** The comparisons here presented will be along the same lines as those made for Central Business and Educational Administration in the preceding section. That is to say, they will involve salaries only since salaries make up approximately 94% of the total expenditures for maintaining these departments of Central Supervision of Instruction. To go further in these comparisons would require an unjustifiably large amount of time even though the early records were sufficiently detailed to give the information desired. On the other hand, if any one desires specific comparisons beyond those made here the information will be furnished so far as possible.

The following table is designed to show four things, as follows:

1. The Departments of Central Educational Supervision that are actually found at the present time.



2. The Departments that are found today but that were not in operation in 1912. This will be indicated in each case by the fact that no expenditures for the department concerned are listed for 1912.
3. The actual amount of salary paid to the directing head in 1912; the amount paid in 1923; and the per cent increase of 1923 over 1912.
4. The amount paid for all personal service for the department, including the salary of the directing head, supervisors and supervising teachers, and clerical assistants, during the year 1912; the amount paid during 1923; and the per cent increase of 1923 over 1912.

TABLE 27

## Comparative Salary Expenditures for Central Supervision of Instruction, 1912 and 1923

Department	Salary of Head 1912	Salary of Head 1923	Per Cent Increase 1923 over 1912	All Salaries 1912	All Salaries 1923	Per Cent Increase 1923 over 1912
Elem. Grades and Kindergartens		\$4,004			\$26,045.00	
Junior High School Grades and Citizenship		5,000			5,405.01	
Health Education		4,216		\$ 3,620.00	24,501.84	576.8%
Drawing	\$1,885	4,116	118.4	3,800.92	9,760.50	156.8
Music	1,740	4,220	142.5	4,954.25	15,928.00	221.3
Penmanship	950	2,110	122.1	950.00	8,286.38	772.2
Home Economics	*2,341	**8,788	275.4	3,590.34	9,301.50	159.1
Manual Training	1,400	4,020	187.1	2,640.00	4,499.01	70.4
Special Education		4,024			11,138.85	
Business Education	2,120	4,104	93.6	2,375.00	5,126.23	115.8
Child Study	1,480	3,396	129.5	2,342.50	19,443.22	730.0
Visiting Teachers		3,172			7,533.28	
Adult Education					2,451.06	
Americanization					4,247.98	
				\$24,273.01	\$153,667.86	533.1%

The above comparison is a comparison in expenditures. The following table gives a comparison between the number of persons employed in each department in 1912 and the number employed in 1923.

\*No Director, 2 Supervisors.

\*\*No Director, 3 Supervisors.

**TABLE 28**  
**Showing Comparison Between 1912 and 1923 in Staff for**  
**Central Supervision of Instruction**

Department	Director		Supervisors		Supervising Teachers	
	1912	1923	1912	1923	1912	1923
Elementary Grades and Kindergartens	0	1	0	2	0	0
Junior High School						
Grades and Citizenship	0	1	0	1	0	0
Health Education	0	1	1	4	0	3
Drawing	1	1	1	1	0	1
Music	1	1	0	2	3	0
Penmanship	1	1	0	2	0	0
Home Economics	0	0	2	3	0	0
Manual Training	1	1	0	0	0	0
Special Education	0	1	0	2	0	0
Business Education	1	1	0	0	0	0
Child Study	1	1	0	0	0	0
Visiting Teachers	0	1	0	0	0	0

**Factors Responsible for Increased Expenditure.** Here, again, the four factors involved in increased salary expenditures in 1923 over 1912, are as follows:

1. Growth in the number of pupils and the increase in the number of teachers.
2. Increased salary schedules for directing and supervisory heads, due to the depreciation of the dollar, the law of supply and demand, or any other equally valid cause.
3. Attempts to improve the effectiveness of the work in Central Supervision of Instruction.
4. The addition of activities since 1912 for which Central Supervision is required.

**Growth.** The following table gives a comparison between 1912 and 1923 with reference to certain important factors involved in this matter of supervision.

**TABLE 29**  
**Growth in Enrollment and in the Number of Teachers Employed**

Factors Involved	Conditions in 1912	Conditions in 1923	Increase 1923 over 1912	Per Cent Increase
Total Registration in Day Schools	27,742	*51,685	23,943	86.3%
Total Number of Teaching Positions in Day Schools	836	** 1,731	895	107%

\*Total registration, for school years ending in June, 1912, and 1923.

\*\*Total whole teaching positions as reported to the State Department of Education at the close of the school year in 1912 and in 1923.

The increase in the number of teachers is due to the growth in school enrollment, the gradual reduction in the size of the elementary grade class, the requirements of the State as to the size of the special class (classes for the mentally retarded having a minimum of ten and a maximum of fifteen pupils according to State Law)\*, the addition of special class teachers in music, the requirement of the State Law for special teachers in health education,\*\* and the efforts to improve the service. In 1912 the average number of special class pupils per teacher was twenty-six. In an effort to provide the best possible educational opportunity for these physically and mentally handicapped children the average number of pupils per teacher has been gradually reduced until in 1923 the average was 17. While this enabled the special class teachers to devote more time to each individual pupil it also resulted in increasing the number of teachers required.

Here, again, it is of course, impossible to establish with mathematical precision any constant relation between growth and the expenditures for the Central Supervision of Instruction. On the other hand, the following comments may be helpful.

In the case of the Department of Elementary Grades and Kindergartens, it is to be noted that there were no staff members in this Department in 1912, while in 1923 there were three members of the staff. This is explained by the fact that the directing head of this Department resigned at the close of the school year in June, 1910, and the position thus made vacant was not filled until January, 1919. This simply means that in reality two members have been added to this staff since 1912. Notwithstanding the increased registration of pupils and number of teaching positions, there has been no increase in the staff in the Departments of Drawing and Manual Training. In the Department of Penmanship the staff has been increased by two persons.

There would, accordingly, seem to be nothing to indicate that the increase in the staff for the Central Supervision of Instruction has even kept pace with the growth in the number of pupils registered and the number of teaching positions. Obviously a comparison of this kind must apply to those supervisory positions only that were found both in 1912 and in 1923.

**Increased Salary Schedules.** The following table gives a comparison of the average per cent increase of salaries paid different types of positions hitherto discussed in this report. These positions are the positions of the regular class room teacher, the elementary school principal, the directing heads of Central Business and Educational Administration, and the directing heads and supervising teachers of the Central Supervision of Instruction.

\*See page 48

\*\*See page 25

TABLE 30

## Comparison of Salary Increases, 1912 and 1923

Position	Average Annual		Per Cent Increase of 1923 over 1912
	Salary Actually Paid in 1912	Salary Actually Paid in 1923	
Regular Class Room Teacher	\$770.17	\$1,707.00	121.6%
Elementary School Principal	1,435.39	3,344.74	133.0
Directing Heads of Central Business and Educational Administration	2,506.67	4,287.62	71.0
Directing Heads of Central Supervision of Instruction	1,489.50	3,641.48	144.5
Supervising Teachers of Central Supervision of Instruction	867.25	2,335.52	169.3

**Increased Expenditures for Improving the Effectiveness of the Work.**

The outstanding example under this head is the Department of Junior High School Grades and Citizenship. The Junior High School is not required by State Law. It simply represents an attempt to improve the effectiveness of the public school organization.

Next in importance here come the addition to the staff in the Department of Health Education and the Child Study Department. Both were found in 1912. In the case of the Department of Health Education, growth is, in part, responsible for the increased membership in the staff. At the same time the addition of nutrition classes, to which practically the entire time of one officer of this Department is devoted, is responsible. This is a change made at the option of the local Board of Education, but made for the purpose of improving the effectiveness of the school work. In like manner, the increased membership in the staff of the Child Study Department, known in 1912 as the Child Study Laboratory, has been due to the expanded field of this work within the public schools as the confidence of principals and teachers in the importance of this work has increased.

The Department of Business Education, with its central supervisory officer, is more adequately explained under this head than under any other. In 1912 commercial courses were found in the East and West High Schools only. Today these courses are found not simply in the East and the West High School but in the Charlotte High School and the Kodak High School, which have come into the city through annexation during the past ten years, and in the four junior high schools that have been established since 1912.

**Added Activities.** The Department of Special Education is the outstanding example of increase due to this cause. Since 1912 State Law has made mandatory classes for physically handicapped children. This includes, in Rochester, the class for crippled children, classes for children with pronounced defective vision, and classes for children with pronounced defective hearing and defective speech. The State Law has also made mandatory during the same period classes for children who are badly handicapped

mentally. That is to say, any child who is three years or more behind in his regular school work, must, under the State Law, be placed in one of these special classes. While such classes were operating in 1912, nevertheless, they were optional with the Board of Education. The total number of pupils found in 1912, in these classes for mentally handicapped children, was three hundred and twenty-eight. The total number found in 1923, including the special classes and the special schools, totaled twelve hundred and fifteen. The very desirable and commendable provision by which these classes are made compulsory by the State, and, consequently, by which these children cannot be neglected by a local community that might otherwise neglect them, has necessitated one central department for organizing and directing all these teachers of special education found in the system.

As has been stated earlier, the increase in the staff in the Department of Health Education, has been accounted for partly by growth and partly by attempts made by the Board of Education to improve the effectiveness of the work through the addition, for example, of nutrition classes for under-nourished children. But a part of the increase in the staff of this Central Department has been due to mandatory provisions of the State Law by which specific instruction and training in health education are required for all children over eight years of age. This law became effective July 1, 1921.

The increase in the staff in the Department of Music is explained largely by this factor of added activities. In 1912 there was found in this Department a directing head and three supervising teachers. At this time vocal music only was taught. As has been explained earlier, these three supervising teachers spent their time entirely in the elementary grades. The introduction of special subject teachers in the elementary grades has decreased the need of the supervising teacher to the point where at the close of the year 1923, the three supervising teachers had been dispensed with. In the meantime, however, the increase in the number of senior high schools from two to four, had made imperative the need of some supervision in high school music. The addition of instrumental music in March, 1919, likewise necessitated a central directing and supervising head for this instrumental music.

### SECTION 3

#### MAINTENANCE AND OPERATION OF SCHOOL PLANT

##### Introductory Questions

1. What items are involved in the maintenance of the school plant, and what was the itemized and aggregate expenditures for the maintenance of the school plant in 1923?
2. What part of these expenditures was devoted to the maintenance of the elementary school plant in 1923?
3. What items are involved in the operation of the school plant as opposed to maintenance, and what were the itemized and aggregate expenditures for the operation of the plant in 1923?
4. What part of the expenditures for the operation of the

school plant were devoted to the elementary school in 1923?

5. How far can valid comparisons be made for expenditures for the maintenance and operation of the school plant for 1912 and for 1923?
6. What explains the increased expenditures for the maintenance and operation of the school plant in 1923 over 1912?

**Maintenance of School Plant.** The City of Rochester owns, maintains, and operates fifty-seven buildings for school purposes, the estimated sound value of which for buildings alone, not including grounds, furniture, or educational equipment, is approximately sixteen millions of dollars. This value is based upon original cost less depreciation. Of course, the actual cost of replacing these buildings, at present building prices, would be vastly more. In addition to the above, the Board of Education rents and operates the East High School Annex on Goodman Street, and the Continuation School building on Smith Street.

The floor area actually used for school purposes in the buildings thus operated and maintained by the Board of Education, is approximately 2,750,000 square feet.

Following is a list of the items into which all expenditures for operating and maintaining these buildings are divided in the cost analysis, together with a statement of expenditures for the fiscal year 1923 and a brief word concerning the nature of the service rendered in each case.

Upkeep of Grounds—\$2,802.40

The upkeep of the grounds of the West High School required the greater part of this expenditure. In the main the school grounds are unfortunately small and the cost of upkeep correspondingly small. The following table, shows the amount of land, expressed in acres, used for each school in the city, grouped according to regular school grounds and play grounds. The acreage given is the actual acreage of the school site and therefore includes the ground upon which the building stands. Only playgrounds separately maintained are listed in the following table. It will be noted that in some cases the school grounds themselves are sufficiently large for use by the school for playground purposes.

**TABLE 31**

**Amount of Land Used for Each School in the City of Rochester, N. Y.  
Grouped According to Regular Schoolgrounds and Playgrounds\***

School	Schoolground		Playground		Remarks
	Sq. ft.	Acres	Sq. ft.	Acres	
East High	132,742	3.04733			
E. H. Annex	17,531	.40245			Old No. 31
West High	340,426	7.81510			
Charlotte High	64,144	1.47254			Inc. No. 38 and 38A

\*Amount of school ground given includes ground upon which the building stands and only playgrounds separately maintained are listed. Playgrounds maintained by the Department of Playgrounds and Recreation outside of school property are not included.

TABLE 31—Continued

School	Schoolground		Playground		Remarks
	Sq. ft.	Acres	Sq. ft.	Acres	
Kodak High	92,048	2.11313	92,925	2.22509	Inc. No. 41
Washington Junior	127,505	2.92711			
Jefferson Junior	72,425	1.66264			
Madison Junior	178,974	4.10867			
Monroe Junior	179,408	4.11864	90,698	2.08213	Inc. Old No. 15
City Normal	66,303	1.52210	28,552	.65546	
Rochester Shop	21,177	.48615			
Boys' Pre-Vocational	26,981	.61939			
1	434,202	9.96790			
2	8,397	.19276			Continuation School
3	52,278	1.20013			
4	30,780	.70661			
5	19,901	.45686			Inc. No. 5A
5-B	106,107	2.43588			
6	46,550	1.06764			
7	65,120	1.49494	53,658	1.23181	
8	40,661	.93344			
9	70,556	1.61974	62,144	1.42662	
10	33,720	.77410			
11	100,198	2.30022	106,519	2.44533	
12	31,320	.71900			
13	59,508	1.36611			
14	Included with City Normal.				
16	103,105	2.36696	63,914	1.46726	
17	87,832	2.01634			
18	97,235	2.23220			
19	61,116	1.40303	29,737	.68266	
20	26,672	.61230	14,848	.34086	
21	45,515	1.04488	55,614	1.27672	
22	60,649	1.39230			
23	86,319	1.98161			
24	80,170	1.84044			
25	90,107	2.06857			
26	81,473	1.87036			
27	67,200	1.54269			
28	216,250	4.96441			
29	34,650	.79545			
30	30,600	.70247			
31	40,260	.92424			
32	20,628	.47355			
33	53,160	1.22038			
34	21,600	.49586	22,400	.51423	
35	45,424	1.04279			
36	38,376	.88099	41,232	.94655	
37	131,040	3.00826			
38	Included with Charlotte High.				
39	5,900	.13544			
40	50,000	1.14784			
41	Included with Kodak High.				
42	51,556	1.18356			
43	113,038	2.59499			
44	57,552	1.32121			
49	28,600	.65656			
Hillside	Not School Property.				
Open Air	76,799	1.76306			
Iola	Not School Property.				

TABLE 32

Amount of Land in Sites for Future Schools, in Leased Property, etc.

School Sites for Future Schools:	Schoolground		Playground		Remarks
	Sq. ft.	Acres	Sq. ft.	Acres	
New No. 38	321,750	7.38636			
New No. 39	140,840	3.23324			
New No. 40	247,800	5.68870			
New No. 45	162,400	3.72819			
New No. 46	151,763	3.48399			
New No. 47	350,860	8.05463			
New No. 48	250,580	5.75252			
New No. 50	276,287	6.34267			
North East High	783,614	17.98930			
Leased Property:					
E. H. Annex	12,627	.28987			Goodman Street
Continuation School	6,720	.15426			838 Smith Street
Old No. 24	35,902	.82419			

Note—These last three items include land upon which the building stands.

#### Repair of Buildings, Exterior—\$33,080.43

This item covers the usual expenditures familiar to all in maintaining a building used for any purpose whatsoever. The actual expenditure was 0.202% of the estimated values of the buildings (\$16,392,999.54).

#### Repair of Buildings, Interior—\$79,152.02

Expenditures here are for such items as the following:

Replacing the floor in kindergartens on first floor of Schools No. 3 and 21, where the floor had rotted away.

Repairing worn out patches on wood and composition floors in the entire school system.

Painting the walls of the toilet rooms.

Repairing doors and windows and blackboards.

Replacing broken glass.

Repairing metal ceiling due to rusting.

Replacing worn out shades on the windows.

The total expenditures for this purpose for the year 1923 were 0.483% of the estimated values of the buildings.

#### Maintenance of Mechanical Equipment—\$68,981.23.

This mechanical equipment includes items such as the following:

Replacing of boiler tubes, furnace wells and grates.

Repairs to engines, fans, belts, pumps and air washers.

Repairs to temperature control apparatus, including air compressors, air piping, thermostats, thermostatic valves, dampers, and damper motors.

Repairs to steam and return piping and radiators.

Repairs to radiator valves and traps.

Repairs to miscellaneous equipment such as reducing valves, damper regulators, stokers and boiler room appliances and valves.

Repairs to sewers, conductors and roof drains.



Repairs to water piping and water heaters.  
 Repairs to toilets, urinals, lavatories, sinks and traps.  
 Repairs to vacuum cleaners and piping.  
 Repairs to gas piping and fixtures.  
 Repairs to lunch room and kitchen equipments.  
 Repairs to shower and plunge equipments.  
 Repairs to lighting circuits, fixtures, switches and receptacles.  
 Repairs to power wiring, to motors and controllers.  
 Repairs to fire alarm and telephone wiring and equipment.  
 Repairs to electric motors, starting devices, and controllers.

Obviously the cost of keeping such equipment in repair is bound to be considerable. The total expenditures for this purpose for the year 1923 were 0.421% of the estimated values of the buildings.

Maintenance of Teaching and Other Equipment—\$25,551.72.

This equipment includes items such as the following:

Repairs to plumbing, electrical and steam connections to laboratory and science room equipments.

Repairs to motors, controllers, and connections in rooms used for shop school classes.

Refinishing furniture, most of which was taken from the schools and repaired and refinished in the Repair Shop, at old school building No. 24, and returned to the schools.

The Board of Education has for some years maintained at this old school building, No. 24, which was abandoned for class work, a repair shop to which all equipment of this kind needing repair is sent.

The above expenditures are for the maintenance of the school buildings as opposed to their actual operation. In other words, they are expenditures used for the purpose, broadly speaking, of keeping the school plant in such a condition of repair that it can be operated satisfactorily for school purposes. The following table gives a summary of these expenditures:

TABLE 33

Summary of Costs for Maintenance of Plant

1. Upkeep of Grounds	\$ 2,802.40
2. Repair of Buildings, Exterior	33,080.43
3. Repair of Buildings, Interior	79,152.02
4. Maintenance of Mechanical Equipment	68,981.23
5. Maintenance of Teaching and Other Equipment	25,551.72
	<u>\$209,567.80</u>

**Operation of Plant.** But to operate these school buildings requires the use of janitors, fuel, and other items. The following discussion states the items involved, the amount expended for each item, and gives a brief word concerning the nature of the service rendered.

Janitors and Other Employees	\$287,937.05
(Protection Services)	<u>3,326.60</u>
	\$291,263.65

This is the largest item involved in the operation of our school buildings. The compensation of the janitor is in accordance with the following schedule:

### Janitorial Compensation

#### A. Day Schools.

The following schedule for the payment of the janitor and his assistants is the basis for determining an equitable rate of compensation:

1. Floor area—
 

For 5,000 sq. ft., 1 janitor	\$ .06 per sq. ft.
For 25,000 sq. ft., 1 janitor and 1 janitress	.045 per sq. ft.
For 150,000 sq. ft., 1 janitor and female help according to schedule	.03 per sq. ft.
2. For one boiler 250.00 per year  
for each additional boiler 75.00 per year
3. For one hot air furnace 200.00 per year  
For each additional furnace 70.00 per year
4. For each engine 75.00 per year  
For each stoker engine 25.00 per year
5. For each stem pump 25.00 per year  
For each power pump 15.00 per year  
For each hydraulic pump 15.00 per year
6. For each electric motor over 10 H. P. 40.00 per year  
For each electric motor from 4 to 10 H. P. inclusive 25.00 per year  
For each electric motor less than 4 H. P. 15.00 per year
7. For each air washer 25.00 per year
8. For each shower room 100.00 per year  
For each plunge 200.00 per year
9. For each thermostat 3.00 per year
10. For each teacher in elementary schools 12.00 per year  
For each teacher in high schools 18.00 per year
11. For night watchman  $\frac{2}{3}$  year's salary
12. For each portable while in use 8.00 per year  
For each dwelling while in use 15.00 per year
13. For laboratory equipment in senior and junior high schools 200.00 per year
14. For washing blackboards in each senior high school 300.00 per year
15. For school yards (\$75 maximum) per sq. ft. .001 per year
16. For walks inside and outside not plowed, per sq. ft. .015 per year  
For walks outside plowed, sq. ft. .01 per year
17. For using cheap fuel, per sq. ft. .005 per year
18. For each pupil belonging .90 per year
19. The head janitor is appointed from a Civil Service list and his salary is fixed by the Board of Education. The normal salary in a furnace heated school is \$1,680 per year; in a steam heated school, \$1,800 per year. In order to recognize to some extent the exact responsibility due to the size of the school, there is added to his personal salary the amount indicated on the following page:

In schools having 15 to 19 teachers inclusive	\$12.00 per year
In schools having 20 to 29 teachers inclusive	36.00 per year
In schools having 30 to 44 teachers inclusive	60.00 per year
In schools having 45 or more teachers	84.00 per year
In junior or senior high schools and City Normal	120.00 per year
20. Supervision—60,000 to 100,000 sq. ft.	\$300.00 per year
100,000 sq. ft. and over	480.00 per year

There are many things requiring the attention of the janitorial force, but as these require an amount of labor which is nearly constant in proportion to the size of the school, they are not included in the above items. Among these are the following: the area of floor to be mopped; the area of glass to be cleaned; ringing the bell; putting up and taking down flag; changing desks; placing and removing seats in the Assembly Hall; winding clocks; repairing window shades, sash locks, door locks, faucets, valves, chairs, desks and fences; supervising and reporting the work of mechanics in the building; receiving and distributing supplies, coal, furniture, etc.

#### B. Evening Schools.

##### 1. Elementary Schools—

Janitor:

For lighting and heating the building and cleaning corridors and toilet rooms	\$2.25 per night
For cleaning each room used for evening school	.07 per night

Fireman:

When no watchman is employed and when twelve or more rooms are used for evening school	2.00 per night
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##### 2. Junior High Schools and City Normal—

Janitor:

For lighting and heating the building and cleaning corridors and toilet rooms	2.25 per night
For cleaning each room used for evening school	.07 per night

Fireman:

When steam is necessary in the building	2.00 per night
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##### 3. Senior High Schools—

Janitor:

For lighting and heating the building and cleaning corridors and toilet rooms	2.25 per night
For cleaning each room used for evening school	.10 per night

Fireman:

When steam is necessary in the building	2.00 per night
---	----------------

#### General:

In case of double sessions in evening schools, one and one-half the above schedule is paid.

When a building is used on Saturday afternoon or Sunday, or if used Saturday forenoon so as to make it necessary to do any janitor work on Saturday afternoon, the compensation for such cleaning is the same as for

evening schools, except that in mild weather the fireman is not employed.

C. Summer Schools—

1. To cover the summer school and make-up class period of six weeks, janitors are paid \$10.00 for the first room used and \$2.00 for each additional room and \$10.00 additional in schools having plunges in operation.

D. School Clubs or Other Gatherings—

1. When an elementary school building is opened for a gathering after 6:00 P. M., the janitor receives \$2.25. When a high school, junior high school or the City Training School is opened for a gathering after 6:00 P. M., the janitor receives \$2.25, and if steam heat is required, a fireman, who receives \$2.00, must be at the building.
2. Janitors do not receive extra compensation for such evenings as the reception to parents of first year students, January and June Commencement Exercises, and such other school activities as may be ordered by the Board of Education.

Fuel—\$214,301.28.

This item may be regarded as fairly normal for the year 1923. That is to say, there were no special conditions of purchasing and storing coal in advance that would affect these expenditures.

Water—\$24,836.82

The Board of Education paid to the city, during the year 1923, for water used in the operation of the school buildings, the amount above indicated.

Light and Power—\$41,685.49.

This item is self explanatory. It includes all expenditures for the entire system for the electricity used in lighting the school buildings and in operating such machinery within those buildings as is operated by electricity.

Janitor Supplies—\$19,955.23.

This item again is self explanatory. It may be of interest here to note that during the year the main items and the number involved in each item, were as follows:

1. 24,000 lbs. of cleaning powder
2. 15 barrels of liquid and soft soap
3. 12,000 cakes of toilet soap
4. 35 dozen floor brushes
5. 15 dozen chamois
6. 5,000 lbs. of cheese cloth and cleaning rags
7. 125 dozen mop yarns
8. 50 dozen sponges
9. 1,800 cases of roll paper towels
10. 250 cases of flat paper towels
11. 100 cases of toilet paper
12. 500 lbs. of waste

Telephones—\$15,382.69.

Each school, of course, has telephone connections with the central office through City Exchange. The number of trunk lines for each school varies from one in the great majority of the buildings, to 3 in some of the largest. There is, furthermore, within each school local telephone connection between the office of the principal and the rooms in the building.

Other Expenditures—\$1,887.31.

Under this item are included expenditures for laundry, the moving of pianos, the cleaning of carpets, and other miscellaneous items which do not classify under those named above.

These expenditures for the operation of our school buildings, as opposed to their maintenance, may be summarized as follows:

**TABLE 34**  
**Summary of Costs for Operation of Plant—1923**

1. Janitors and Other Employees	\$287,937.05
(Protection Services)	3,326.60
2. Fuel	214,301.28
3. Water	24,836.82
4. Light and Power	41,685.49
5. Janitor Supplies	19,955.23
6. Telephones	15,382.69
7. Other Expenditures	1,887.31
	<hr/>
	\$609,312.47

The expenditures just discussed are for maintaining and operating the school buildings in the entire system. Of these total expenditures \$488,965.33 was used for the Elementary School buildings only. The remainder was used for high schools, continuation schools, the City Normal School, and other buildings within the system.

If the amount thus used for the elementary school plant be divided among the 31,671 children, the average number belonging in the elementary schools during the school year, the per capita cost for each child would be \$15.44.

The total expenditures of the public schools of Rochester, for all purposes, during the fiscal year 1923, amounted to \$6,549,838.20. Of this amount \$818,880.27 was used for the maintenance and operation of the school plant. The per cent of all expenditures thus used for this purpose was 12.5%. The total expenditures for the Elementary Schools only, for the same period, amounted to \$3,463,250.49. Since of this amount \$488,965.33 was used for the maintenance and operation of the Elementary School buildings, it follows that the per cent thus used was 14.1%.

**Comparative Expenditures.** The following table shows the comparative expenditures for 1912 and for 1923, for the Maintenance and Operation of the School Plant:

TABLE 35  
Comparative Expenditure 1912 and 1923 for Maintaining and  
Operating All School Buildings

	1912	1923	Increase
Upkeep of Grounds	\$ 2,453.22	\$ 2,802.40	\$ 349.18
Repair of Buildings, Interior and Exterior	16,145.50	112,232.45	96,086.95
Maintenance of Mechanical Equipment	15,505.70	68,981.23	53,475.53
Maintenance of Teaching and Other Equipment	5,018.13	25,551.72	20,533.59
Janitors and Other Employees (Protection Services)	61,925.57	287,937.05 } 3,326.60 }	229,338.08
Fuel	43,844.72	214,301.28	170,456.56
Water		24,836.82	24,836.82
Light and Power	10,161.63	41,685.49	31,523.86
Janitor Supplies	7,774.65	19,955.23	12,180.58
Telephones	1,106.84	15,382.69	14,275.85
Other Expenditures	3,002.74	1,887.31	—1,115.43
	\$166,938.70	\$818,880.27	\$651,941.57

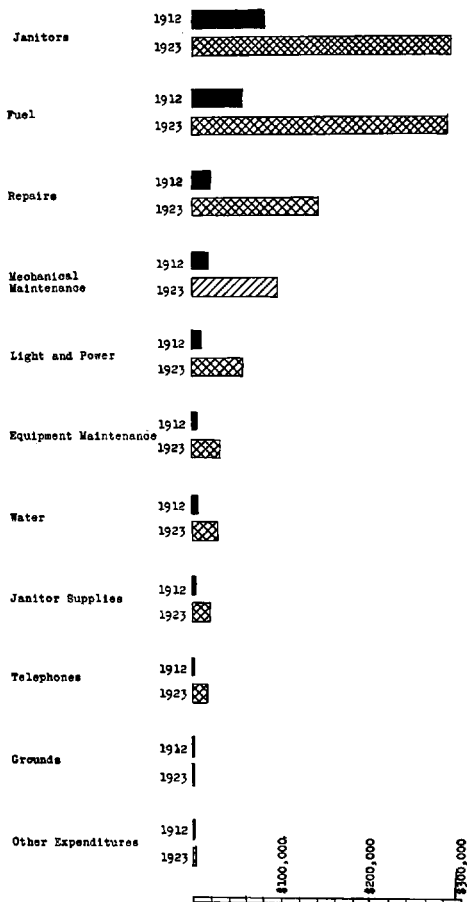
**Factors Responsible for Increased Expenditure.** It is now in order to ascertain, roughly, to what extent these increases are accounted for by each of the four factors previously discussed, viz., growth; depreciation of the dollar; more effective service; and added activities.

**Growth.** At the close of the school year in 1912 the total number of persons reported to the Common Council as having registered in day and evening schools during the calendar year was 40,966. The corresponding number at the close of the year 1923 was 67,458. This was an increase of 26,492, or 64.7%. As shown on page 33 the per cent increase for the day schools only for the same period was 83.8%.

These items do little more than suggest the importance of this factor of growth in accounting for these increased expenditures. At best, however, it is but one factor. It is estimated that even though prices had remained in 1923 exactly as they were in 1912, and even though not one single attempt had been made during this eleven year period to do better the things that were being done in 1912, and thereby improve the service, even though such improvement involved an additional expense, and even though the public school system had not added during this period a single activity for which additional expenditures were required; mere growth alone would have accounted for at least 65% of the increased expenditures of 1923 over 1912.

**Depreciation of the Dollar.** These expenditures for maintenance and operation of school buildings are for things concerning which it is relatively easy to secure comparative index figures as to cost. We know very readily, for example, what the cost of coal per ton was in 1912 and what the cost

## CHART XI

COMPARATIVE EXPENDITURE 1912 AND 1923 FOR MAINTAINING AND  
OPERATING ALL SCHOOL BUILDINGS

of coal per ton was in 1923. The following table will give the index figures showing the increase in some of the principal items:

**TABLE 36**  
**Comparison of Cost of Coal in 1912 and 1923**

Coal	1912	1923	Increase
Egg	\$5.70 per ton	\$13.10 per ton	\$7.40 per ton
Stove	5.66 per ton	13.20 per ton	7.54 per ton
Nut	5.66 per ton	13.20 per ton	7.54 per ton
Mine Run	3.50 per ton	5.85 per ton	2.35 per ton
Screened Lump	3.25 per ton	5.58 per ton	2.33 per ton

**More Effective Service.** It goes without saying that the ideal is increased and improved service at reduced cost. It is impossible under this principle to administer to any extent the actual working of the principle because it is impossible to isolate this one factor and deal with it by itself. Nevertheless, it is true that in no single department of expenditures have more genuine economies been effected during this period under review than in the department which is now responsible for the maintenance and operation of the school plant. In 1912 there was no one single department in which was centered the responsibility for directing and supervising this important work. The result was waste. The Department of Buildings, with its superintendent and staff, has actually proved to be one of the most economical steps taken by the Board of Education. It has resulted in an actual saving in the amount of coal that would otherwise have been used; it has so changed former plans of making repairs within the buildings as to effect substantial savings; and it has so closely followed the need of repairs to the outside of buildings and made these repairs so far as funds permitted, that the saving in this item alone would be substantial were it possible to put a value upon it. In short, the attempts made to improve the effectiveness of the service in this connection have resulted in economies rather than in increased expenditures.

**Added Activities.** Previous to 1919 no charge was made by the city for water used in the public schools. This item of \$24,836.82 for water, therefore, is an added expense in 1923 over 1912. It is the only added item of expenditure. While no expenditure for the "Exterior Repair of Buildings" are listed for 1912, nevertheless, expenditures were made for these purposes. All repairs were then grouped together and not separated into exterior and interior.

## SECTION 4

### AUXILIARY AGENCIES

#### Introductory Questions

1. What is meant by "Auxiliary Agencies?"
2. What were the expenditures for each of the chief items under Auxiliary Agencies for the year 1923 for the entire system?



3. What part of these expenditures was chargeable to the Elementary Schools?
4. Approximately how did the expenditures for 1923 compare with the expenditures for 1912?
5. To what extent was growth a factor in increased expenditures for these Auxiliary Agencies?
6. How far was the depreciation in the purchasing power of the dollar between 1912 and 1923, a factor in the increased expenditures for 1923?
7. To what extent were the increased expenditures of 1923 accounted for by attempts made since 1912 to improve the service?
8. What additions have been made to the Auxiliary Agencies service since 1912?

**Explanatory Statement and Expenditures for 1923.** "Auxiliary Agencies" represent a division of accounting established by the State Department of Education. It is in common use throughout the public school accounting systems of the country. In general, it includes, as the title indicates, all those activities that are not strictly and technically related to the processes of instruction and supervision within the schools but that, on the other hand, form an important part of the activities for which the Board of Education is responsible. The items thus grouped under Auxiliary Agencies, together with a brief statement explaining the nature of each, are as follows:

**Grade Library Books, Supplies and Salaries—\$33,939.30.**

Library Salary and Supplies	\$15,066.85
School Library Books—Maintenance	885.08
School Library Books—New	6,581.95
Supplementary	5,255.47
Teachers Copies	1,544.46
Grade Library	4,605.49
	<hr/>
	\$33,939.30

For a good many years in Rochester it has been the practice to have in each grade room a set of regular library books. These are purchased by the Board of Education, loaned to such pupils in the grade as may care to take them, and managed entirely by the regular grade teacher in charge. There are also regular libraries maintained in the junior and senior high schools. Specially trained librarians are in charge of these libraries. These high school librarians may fairly be said to be as directly related to the teaching of English, history, modern languages, and the like, as the physics laboratory is to the teaching of physics. Under the state code of accounting,

however, all library books and supplies, as well as all expenditures for librarians in charge of such books and supplies, are grouped under "Auxiliary Agencies." For this reason they are so grouped here.

Books and Supplies for Book Rentals and Indigents—\$42,388.74.

As a principle the parent is supposed to provide, at his own expense, such regular text books and supplies as the individual pupil requires. The free text book system has never been in operation in Rochester. It will always happen, however, that certain parents cannot afford to buy these books and supplies. In such cases, books and supplies are furnished by the Board of Education, and all expenditures for this purpose are grouped under expenditures for "Auxiliary Agencies."

It is worth noting here that the Board of Education, in accordance with permission granted by the State Legislature in 1921 provides that parents may rent text books for the use of their children if they so desire. In these cases the Board of Education, after a study of the length of time for which a given book can be used, fixes a rental fee that is simply ample to reimburse the Board for books thus purchased.

The applications to the Board for furnishing free of charge these text books and supplies, are not only numerous but they are increasing each year. To administer this work fairly and intelligently is one of the most perplexing problems faced by school authorities. In general, however, each case is investigated, often by special investigators appointed by the Board of Education. These investigators not only visit the home but also get all information available from the City Department of Charities and other agencies. But it is one thing to reach a judgment as to the merits of the claim and quite another thing to get prompt action by the parent when once a decision has been reached by school authorities. If the parents were the only ones to suffer in cases of this kind the situation would not be quite so bad, but to exclude children from the school or to allow them to go on for weeks without the necessary books and supplies, is to work a gross injustice to the children. As a result of experience there is a growing conviction that the best solution of this entire problem is the free text book system that is in common use now throughout the entire country.

Transportation of Pupils—\$4,853.69.

There are no elementary school districts in Rochester from which pupils are transported to the school within the district. It so happens, however, that in the case of annexed territory where the annexation does not include all the land that originally lay in a given school district, the city has guaranteed to the portion of that district left outside the city after the annexation, the free privileges of the city school system. A case in point, for example, is found in the annexation of the territory that added Theodore Roosevelt School, No. 43, on Lyell Avenue, to the city school system. But the children living in that portion of the original school district not annexed to the city, not only live an exceedingly long distance from the school but they live in an undeveloped section not supplied with streets and side walks that are paved and kept open in winter. In such cases it is necessary

for the Board of Education to provide transportation to and from school.

Furthermore, the Boys' Pre-Vocational School on Bay Street, is the only school of its type for the entire system. When the Board of Education, therefore, assigns to this school a pupil who lives at a distance that makes walking to and from the school prohibitive, the Board of Education provides the transportation required. All expenses for the transportation of children are classed under expenditures for "Auxiliary Agencies."

#### Milk Distribution—\$15,404.54.

Some two or three years ago, in response to a well grounded community demand, milk was made available in the Elementary Schools for those children who cared to purchase it. At approximately the middle of the morning session, for example, a half pint bottle of milk and a cracker or wafer is furnished to each child whose parents desire to purchase this milk.

But there are children who seriously need this milk and whose parents are either unable or unwilling to purchase it. To determine who these children are the Emerson Nutrition Standard is first applied by the Department of Health Education. According to this standard any child who is 7% or more below the average weight for height, is mal-nourished to the point where corrective measures should be taken. In case such a child is not purchasing milk at the mid-morning session, a visit is made to the home, first of all to present the case to the parent for the purpose of persuading the parent that the child should be provided with the milk. If these efforts fail, however, or if the person who visits the home is convinced that the home is financially unable to meet this expense, then the milk is furnished free of charge. All expenses for the purchase of milk thus furnished to these under-nourished children, are borne by the Community Chest. For the past two years now \$3,000.00 has been made available each year for this purpose.

But from the beginning the Board of Education has met the expense required for the personal service required in this connection. It is necessary, for example, to have some person who, at this mid-morning session, is responsible for serving this milk, for collecting and cleaning the bottles, and doing such other work as is required.

#### Domestic Science Lunch Rooms—\$50,731.07.

These domestic science lunch rooms are maintained by the Board of Education in the Elementary Schools and in some cases the Junior High Schools, for practice work in the domestic science taught in these schools. The Supplies used for this purpose in the form of sugar, eggs, and the like, are purchased by the directing head of this part of the Home Economics work. These supplies, however, are paid for by the girls to whom this work is taught. As a matter of sound business methods, however, all expenditures for this purpose are recorded as expenditures by the Board of Education in the usual way even though there is a credit item under resources that completely offsets the expense.

#### High School Lunch Rooms—\$63,829.88.

From the time the East High School was erected in 1902 lunch rooms have been maintained in the high school for the benefit of those boys and

girls who live at such a remote distance from the high school as to make it impossible for these pupils to go to their homes for luncheon. All such are free either to bring their own lunch or to take the luncheon provided at the school. These lunch rooms are entirely self supporting. The food is simply sold at a price that will reimburse the Board of Education for all expenditures involved. Here, again, however, simply as sound business procedure, all these expenditures are recorded in the usual way among the expenditures of the Board of Education even though there is a credit item among the resources for the full amount involved.

Boys' and Girls' Clubs—\$7,795.02.

For the past dozen years or more the Board of Education has maintained these Boys' and Girls' Clubs for the upper grade pupils in the Elementary Schools. The clubs meet for a two hour session at the close of school once each week. The club director is paid by the Board of Education. The whole purpose, of course, is to meet that very legitimate demand for wholesome recreation and thereby guarantee to the growing boy and girl those very important returns, not primarily to the physical life, but rather to the moral life of these children.

Public Meetings—Exercises—\$958.48.

For a good many years the Board of Education has held public exercises on Washington's Birthday. These are too well known to the community to require any extensive discussion. It is a custom that was initiated by the George H. Thomas Post of the Grand Army Republic more than thirty years ago. The necessary expense connected with these exercises is borne by the Board of Education.

For the past four years the Board of Education has conducted each year a "Know Your School Week." In connection with this week certain descriptive circulars have been published for distribution. There are also from time to time reports published by the Board of Education for the information of the public. The regular proceedings of the Board of Education, likewise, have to be published in accordance with the State Law.

All expenditures for the purposes here sketched are grouped under expenditures for "Auxiliary Agencies." The total amount of these expenditures for the year 1923, was \$219,900.72, as stated above.

## SUMMARY

The foregoing expenditures may be summarized as follows:

**TABLE 37**  
**Auxiliary Agencies—1923**

Grade Library Books, Supplies and Salaries	\$ 33,939.30
Books and Supplies for Indigents	42,388.74
Transportation of Pupils	4,853.69
Milk Distribution	15,404.54
Domestic Science Lunch Rooms	50,731.07
High School Lunch Rooms	63,829.88
Boys' and Girls' Clubs	7,795.02
Public Meetings—Exercises	958.48
	<u>\$219,900.72</u>

Of the above amount, \$66,671.00 were the expenditures for these Auxiliary Agencies in the Elementary Schools only.

If the total expenditures for Auxiliary Agencies in the Elementary Schools be divided among the 31,671 children "belonging" in these schools during the year, then the per capita cost for each child was \$2.10.

Since the total expenditures for all schools and for all purposes during the year 1923 were \$6,549,838.20, and of these the total expenditures for Auxiliary Agencies were \$219,900.72, it follows that 3.3% of all the money used, was used for Auxiliary Agencies.

Since the total expenditures for all Elementary Schools were \$3,463,250.49, and of this amount the total expenditures for Auxiliary Agencies were \$66,671.00, it follows that 1.9% of the money used for the Elementary Schools was used for Auxiliary Agencies.

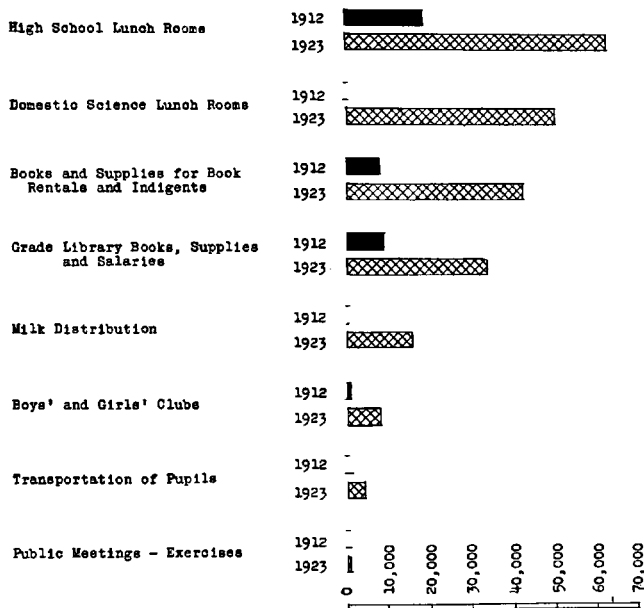
**Some Comparisons.** The following table shows the total comparative expenditures for Auxiliary Agencies for the year 1912 and the year 1923:

**TABLE 38**  
**Comparison Between Expenditures for Auxiliary Agencies for All Schools—1912 and 1923**

	1912	1923	Increase
Grade Library Books, Supplies and Salaries	\$ 8,840.30	\$ 33,939.30	\$ 25,099.00
Books and Supplies for Book Rentals and Indigents	8,239.31	42,388.74	34,149.43
Transportation of Pupils		4,853.69	4,853.69
Milk Distribution		15,404.54	15,404.54
Domestic Science Lunch Rooms		50,731.07	50,731.07
High School Lunch Rooms	17,902.82	63,829.88	45,927.06
Boys' and Girls' Clubs	1,245.86	7,795.02	6,549.16
Public Meetings—Exercises		958.48	958.48
	<u>\$36,228.29</u>	<u>\$219,900.72</u>	<u>\$183,672.43</u>

CHART XII

COMPARISON BETWEEN EXPENDITURES FOR AUXILIARY  
AGENCIES FOR ALL SCHOOLS  
1912 AND 1923



Broadly speaking, to what extent are the four factors responsible for increased expenditures operative in this connection?

**Growth.** It is obvious that the growth in the system heretofore discussed has been quite as operative here as elsewhere in causing increased expenditures.

**Depreciation of the Dollar.** One of the large items of expense under Auxiliary Agencies is "Books." On the average the cost of educational books has increased 80% since 1912. In other words, if in 1912 the Board of Education had been obliged to pay the prices that prevailed in 1923 the actual cost of the books would have been \$11,243.47 instead of \$6,246.57.

The importance of this factor in the matter of salaries has already been discussed. It applies equally well to supplies and any other items of expenditure.

**Increased Effectiveness of Service.** This has not been a factor in increased costs for Auxiliary Agencies.

**Added Activities.** In 1912 the Board of Education had no expenditures for transportation of pupils. Expenditures for this purpose, since 1912, have arisen because of the annexation made to the city and because of the establishment of the Boys' Pre-Vocational School on Bay Street.

In 1912 there were no mid-morning luncheons furnished to the pupils of the elementary schools. This item is, therefore, wholly an added expense as a result of the demand for such luncheons.

"Know Your School Week" was established in Rochester in 1920. There were consequently no expenditures for this item in 1912.

## SECTION 5

### FIXED CHARGES

#### Introductory Questions

1. What is meant by "Fixed Charges?"
2. What are the specific Fixed Charges for which expenditures are made, and what were the expenditures for each charge during the year 1923?
3. How did the expenditures for Fixed Charges in 1923 compare with the expenditures for the same purpose in 1912?
4. What factors are responsible for the increased expenditures of 1923?
5. To what extent are these Fixed Charges a matter of State Law?

**Explanatory Statement.** "Fixed Charges" is a term used in cost accounting to include those charges that are so fixed that adjustments from year to year are practically not within the control of the Board of Education. Even then it is a strictly technical term since, for example, it does not include the salaries of teachers and many other items required under State Law.

The items involved under Fixed Charges, together with an explanatory word concerning each, and the amount of the expenditures for 1923, follow:

Pensions—Teachers' Retirement Fund	\$186,995.63
—Civil Service	690.00
	<hr/>
	\$187,685.63

The New York State Teachers Retirement Fund is maintained through contributions made in part by the teachers who participate in the Fund, in part by the State itself, and in part by local communities.

This is all in accordance with a scale fixed by State Law governing these pensions. Under this law each regularly employed teacher contributes 4% of his annual salary, while the city contributes in all an amount equal to 5.2% of the total salaries paid. The actual amount of money paid from our local current operating expense fund for this purpose during the year 1923 was \$186,995.63. In addition to this, the Board of Education paid \$690.00 to pensioners who had been retired under civil service provisions.

Rent—Buildings	\$28,745.84
Rent—Equipment	9,353.31
	<u>\$38,099.15</u>

Because of inadequate space in that part of the present Municipal Building that is available for the Board of Education, it has been necessary for the Board to rent outside quarters both for the Department of Buildings and the Department of Health Education. While these quarters are in close proximity to the Municipal Building, nevertheless, any arrangement of this kind is bound to be unsatisfactory from the standpoint of favorable administrative conditions.

Furthermore, in view of the inability of the city to build the school buildings required, the Board of Education has found it necessary to rent certain buildings that are directly used for school purposes. Among these are the East High School Annex on North Goodman Street, and the Continuation School building on Smith Street.

The following table reports all the buildings thus rented by the Board of Education, states the square foot rental rate, and the entire rental cost for the year 1923:

**TABLE 39**  
**Buildings Rented by the Board of Education in 1923**  
**and the Rental Cost of Each**

Building	Square Foot Cost	Total Year Cost
In Duffy-Powers Building for Department of Buildings	\$1.78	\$9,868.32
In Rochester Savings Bank Building for Department of Health Education	1.068	1,667.52
Former factory on North Goodman Street for East High School Annex	.314	13,372.63
Former factory on Smith Street for Continuation School	<u>.332</u>	<u>7,980.00</u>
		\$32,888.47

Insurance—\$1,940.36.

The Board of Education carries no insurance upon its school buildings, nor does it, in general, carry insurance upon school property. On the other hand, it does carry insurance upon the two automobile trucks used for general delivery, and also upon the two other automobiles owned by the Board of Education. There is also a small insurance carried on pictures,



casts, and other material used for decorative purposes within the school and purchased either by the pupils, themselves, or donated by persons, or organizations outside the school. In addition to the above, there is also indemnity insurance for the protection of the Board in case of accidents in the shops operated within the school plant.

#### Taxes—\$140.21.

At the time the northeast high school site on Norton Street was purchased, part of this site lay within the city of Rochester and part of it outside in the town of Irondequoit. It was necessary for the Board of Education to pay taxes upon that portion of the territory not lying within the city. As a general proposition, of course, the Board of Education does not pay taxes.

#### Refunds and Other Expenditures—\$1,746.93.

This item is made up of expenditures for accidents not otherwise covered by insurance. When a child is injured in the school the Board of Education pays for the first aid rendered by the physician called to an amount not exceeding five dollars. Other injuries inevitably come throughout the year and the total costs for these are given under the item of Contingencies.

The Board of Education is affiliated with the Associated School Boards and Trustees of the State of New York. The annual dues amount to \$100. There are certain refunds required because of invalid deductions for tuition and pensions. These and similar items make up the total for Refunds and Other Expenditures.

#### Illness—\$27,830.81.

Teachers who are absent from school on account of serious personal illness (serious personal illness is defined as illness which necessitates absence from duty for more than five consecutive days) are allowed full salary for from twenty to sixty days, according to the number of years of service of the applicant for such allowance. A certificate from the attending physician, approved by a physician representing the Board of Education is required as evidence of such personal illness.

#### Death and Quarantine—\$1,942.70.

In case of death in the immediate family three days absence are allowed without salary deduction.

In case of quarantine no deduction from salary is made if the notice of quarantine served by the Health Bureau is submitted with the application.

The total cost to the Board of Education for salary allowances for illness, death and quarantine during the calendar year was \$29,773.51.

During the year 1923 the sum of \$2,762.04 was paid as the result of claims due to accidents under the State Compensation Law.

For many years the sum of \$200 each year has been appropriated to the Rochester Teachers' Association towards the Lecture Course for teachers.

In the following table the expenditures for Fixed Charges, during the year 1923, are summarized:

TABLE 40

**Payments Made for Fixed Charges from Current  
Operating Expense Fund—1923**

Teachers' Retirement Fund	\$186,995.63
Pensions on Payroll	690.00
Rent of Buildings	28,745.84
Rent of Equipment	9,353.31
Insurance	1,940.36
Taxes	140.21
Refunds and Other Expenditures	1,746.93
Salary allowed for Illness	27,830.81
Salary allowed for Death and Quarantine	1,942.70
Compensation Payments	2,762.04
Rochester Teachers' Association	200.00
	<hr/>
	\$262,347.83

Since the total current expenditures for all schools for the year 1923 amounted to \$6,549,838.20, while the expenditures for Fixed Charges amounted to \$262,347.83, it follows that the per cent of the whole that was used for Fixed Charges was 4%.

Since the total amount of money used for the Elementary Schools during the year 1923 was \$3,463,250.49, and the part of this used for Fixed Charges in these schools was \$138,260.63, it follows that 3.9% of all the Elementary School expenditures was used for Fixed Charges.

**Comparative Expenditures.** The following table shows the comparative expenditures for Fixed Charges for the years 1912 and 1923.

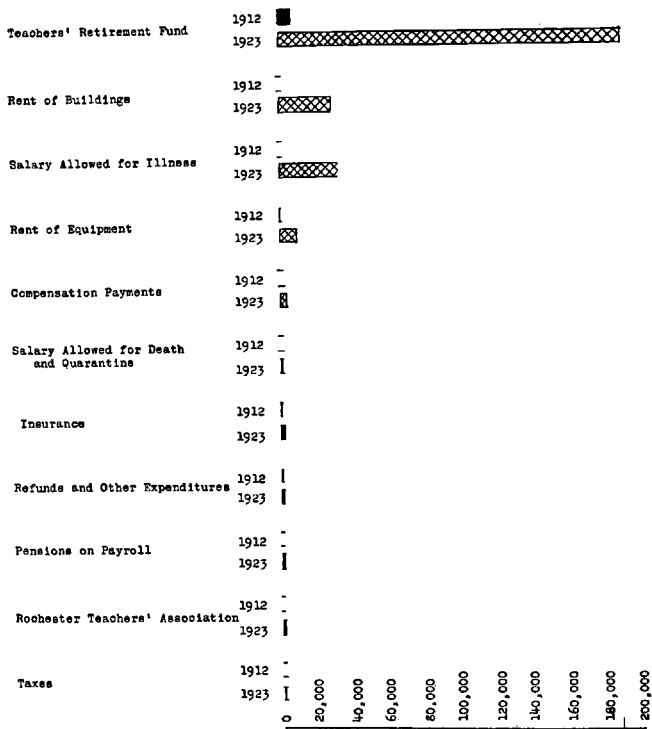
TABLE 41

**Comparative Expenditures for Fixed Charges 1912 and 1923**

	1912	1923	Increase
Pensions on Payroll		\$ 690.00	\$ 690.00
Compensation Payments		2,762.04	2,762.04
Teachers' Retirement Fund	\$6,272.35	186,995.63	180,723.28
Salary allowed for Illness		27,830.81	27,830.81
Salary allowed for Death and Quarantine		1,942.70	1,942.70
Rent of Buildings		28,745.84	28,745.84
Rent of Equipment	283.92	9,353.31	9,069.39
Insurance	239.00	1,940.36	1,701.36
Taxes		140.21	140.21
Refunds and Other Expenditures	6.13	1,746.93	1,740.80
Rochester Teachers' Association		200.00	200.00
	<hr/>	<hr/>	<hr/>
	\$6,801.40	\$262,347.83	\$255,546.43

## CHART XIII

COMPARATIVE EXPENDITURES FOR FIXED CHARGES 1912 AND 1923



**Factors Responsible for Increased Expenditures.** It will be noted that these increased expenditures are largely accounted for by the items of salary allowance in case of illness, the rent of buildings and the Teachers' Retirement Fund. The growth of the system since 1912 and the inability of the city, because of war and consequent financial conditions, to build in proportion to the growth, has necessitated the renting of buildings not only for school purposes but for office requirements.

The single item of pensions is the only fixed charge that comes under State Law. In 1906 the Teachers' Retirement System of Rochester was established. Under this system each person belonging paid an amount equal to 2% of his annual salary. The Board of Education in turn contributed likewise one-half of total sum deducted from the annual salaries respectively paid to the Superintendent of Schools, Supervisors, Principals, and Teachers regularly employed in the public schools of the city. In 1921 the legislature amended the New York State Teachers Retirement Fund and the local system was merged with the State Fund. An actuarial study was made of the local fund and this study showed that it was not established upon a sound financial basis. While it could have been carried on successfully for some years, yet in the end the income would not be sufficient to meet the demands made upon it. This was simply a repetition of the experience found pretty generally in the country with this relatively new form of pension. It was this same type of study that led to the amendment of the New York State Teachers Retirement Fund by State Legislature. As has been stated, the present State Fund requires 4% from the annual salary of each teacher, and 5.2% from the local Board of Education.

## SECTION 6

### CAPITAL OUTLAY EXPENDITURES FROM CURRENT EXPENSE FUND

#### Introductory Questions

1. What is meant by expenditures for "Capital Outlay?"
2. Since expenditures for what is commonly included under Capital Outlay, buildings, sites, and equipments, are usually met through bond issues, how does it happen that there are expenditures for this purpose made from current operating expenses?
3. What are the chief items from which so called capital expenditures were made from the current operating expense fund during 1923, and how much was spent for each item?
4. What was the total cost of such expenditures in 1912 and what factors are responsible for the increase?

**Meaning of Term "Capital Outlay."** In general, Capital Outlay includes expenditures for buildings, sites, equipment, and the like, that will last for a term of years. It is apparent that a new school building, or a new site, or a new set of desks bought for equipping a school building come under this general heading. A box of crayon, on the other hand, or the salary which a teacher is paid for a single year, and all other similar lines of service, are consumed at the end of the year for which the expenditure was made.

Since 1902 it has been the policy in Rochester to finance, for the most part, the erection of new school buildings and the purchase of new sites through bond issues. In other words, the city has borrowed money through

the sale of bonds for financing these undertakings. This has been the growing practice throughout the cities of the country. The reason for this is that few communities have been either legally free or financially able to maintain a strictly pay as you go policy with reference both to current operating expenses and permanent improvements of this type. The justification has been that since the use of a school building, for example, will be available for a good many years, it is just and reasonable that its payments should be distributed over those years thereby making such a distribution equitable. The disadvantage of this method of financing, however, will be shown and discussed in a later chapter of the report.

**Items of Service and Expenditures for Each.** The following are the chief items for which expenditures for Capital Outlay are made from current operating expenses.

**New Buildings and Sites—\$51,871.29.**

In discussing the work of the Superintendent of Buildings in Section 1 of this chapter, reference was made to the fact that in some cases this department prepares plans and specifications for new elementary school buildings. The reason why this was done was also discussed in that connection. Ordinarily architect's fees for new buildings, as well as all items that enter into the cost of purchasing the site or of constructing the building, are chargeable to the bond account. In view of the fact, however, that the services for the plans and specifications prepared by our own building department were paid from our regular current expense fund, these expenses are here charged to this particular item of Capital Outlay.

Equipment: New Buildings	\$118,024.22
Old Buildings	72,061.21
	<hr/> \$190,086.43

It has been stated above that throughout the country the custom frequently practiced of financing, through bond issues, not simply the erection of new school buildings and the purchase of sites, but the purchase of equipment as well. Rochester has, in the main, avoided this custom. It has almost without exception restricted its expenditures from the bond account to the erection of new school buildings and the purchase of new sites. All furniture, instructional equipment, mechanical equipment, office equipment, new books that are purchased for libraries, and other similar items of equipment, are therefore paid for from the regular current expense budget.

**Alterations of Old Buildings—\$6,753.59.**

Rochester has, so far as possible, not simply furnished its equipment from the current operating expense account, but it has, likewise, paid for alterations in old buildings from the same account. If a class room is redecorated, then clearly an expense is involved simply for keeping that room in as good a condition for school purposes as it originally was. In other words, it is an expense for replacing that which has been worn out. All such expenses are classified under the maintenance of school buildings and they were discussed in the preceding section.

But if a partition is run through a particular room for the purpose of making two rooms, then clearly something has been added to the original building. While it would be entirely defensible to pay for such alterations from the bond account, nevertheless, for the purpose of keeping this account down as much as possible, the Board of Education has depended rather upon current operating expenses for financing these required alterations.

The foregoing expenditures are summarized in the following table:

**TABLE 42**  
**Summary of Capital Outlay Expenditures Made From Current**  
**Expense Fund for the Year 1923**

New Buildings—Structure	\$ 98.08
New Buildings—Mechanical Equipment	17,042.31
New Buildings—Furniture	50,978.97
New Buildings—Instructional Equipment	57,505.06
New Buildings—Office Equipment	4,494.58
New Buildings—Lunch Room Equipment	2,600.40
New Buildings—Minor Equipment	2,445.21
Old Buildings—Alterations	1,280.49
Old Buildings—Mechanical Equipment	5,473.10
Old Buildings—Furniture	22,563.04
Old Buildings—Instructional Equipment	36,181.95
Old Buildings—Office Equipment	3,968.10
Old Buildings—Lunch Room Equipment	2,686.87
Old Buildings—Minor Equipment	6,662.25
New Grounds—Planting, etc.	20.15
Land	34,710.75
Architect and Engineers' Fees	19,476.08
Stores Department	6,625.80
Other Expenditures	4,936.45
	\$279,749.64

Of the above expenditures for Capital Outlay, the sum of \$83,226.49 was used for Capital Outlay in the Elementary Schools only.

Since the total expenditures for all schools for the year 1923 amounted to \$6,549,838.20, while the expenditures for Capital Outlay amounted to \$279,749.64, it follows that the per cent of the whole that was used for Capital Outlay was 4.2%.

Since the total amount of money used for the Elementary Schools during the year 1923, was \$3,463,250.49 and the part of this used for Capital Outlay in these schools was \$83,226.49, it follows that 2.4% of all the elementary school expenditures was used for Capital Outlay.

During the year 1912 the total amount of money from the current operating expense budget for these items of permanent improvement was \$125,852.73.

**Factors Responsible for Increased Expenditures.** A brief discussion of the four factors responsible for increased expenditures during the period under review is accordingly in order.

**Growth.** The only item in connection with which growth can be discussed here is that which has to do with furniture and equipment. Earlier in this report the extent to which new buildings have been required because of the very large increase in the number of pupils has been discussed. Obviously such growth and consequent increase in the number of buildings has had a decidedly important bearing upon the increased expenditures for furniture, equipment, books, and the like.

**Depreciation of the Dollar.** Sufficient comparative costs are available here for all practical purposes. The stationary school desk that in 1912 cost \$3.15, cost \$7.75 in 1923. This was an increase of 146%. The portable desk used largely in the elementary schools that cost \$5.25 in 1912, cost \$10.23 in 1923. This was an increase of 94.8%. The general increase in the cost of books was discussed in the preceding section. The effect of these increased costs upon increased expenditures is clearly important.

**Improved Service.** There is no traceable connection between this factor and increased expenditures. In other words, such attempts as have been made to improve the service here have not involved additional expenditures of money.

**Additional Activities.** In 1912 the Board of Education maintained no Department of Buildings. There was, consequently, no expenditures made from the current operating expense account for plans and specifications for new school buildings. All work was done by the outside architect employed by the Board of Education, and all expenditures for this service were made from the bond account.

## CHAPTER XI

### DEBT SERVICE

#### Introductory Questions

1. What is meant by "Debt Service?"
2. Briefly, what is the history of this item in the financing of the Rochester Schools?
3. What were the expenditures for Debt Service during the fiscal year 1923?
4. How were these expenditures distributed among the main items involved?
5. How did these expenditures for 1923 compare with the expenditures for 1912 for the same purpose?
6. What accounts for the increase?

**Preliminary Statement.** During the fiscal year 1902, bonds to the amount of \$150,000.00 were issued by the city for the erection of the East High School. It will be remembered that this was shortly after the large Board of Education, consisting of one member from each ward, and elected by the people of the ward, had been replaced by the small board of five members, elected by the city at large. Prior to 1902, the principle had been followed of financing the purchase of sites and the erection of school buildings from the current appropriations of the Board of Education. Because of increased building demands, however, it was no longer possible to continue this very desirable policy.

In issuing these bonds for the erection of the East High School it was provided that the Board of Education should set aside each year in a sinking fund a certain amount for the payment of this indebtedness. This plan of financing at once established certain fixed charges for interest on and the redemption of bonds that had to be met each year from the current tax levy. By 1912 and 1913 the demands thus made upon the current school funds by these fixed charges had become a matter of grave concern to the Board of Education. On January 1, 1914, James P. B. Duffy, then President of the Board, wrote as follows in his annual report to the city authorities and to the public at large: "The interest charges on outstanding bonds and notes amounted, during the past year, to \$21,000.00. Next year these interest charges will be approximately \$44,000.00, which, with \$25,000.00 that must be set aside for the sinking fund, is a charge upon current appropriations. It is, therefore, a question of grave consideration to what extent this charge may be increased by creating building funds from the sale of bonds if the interest on these bonds is to be paid from current school funds."



It has, however, seemed necessary to continue this principle of financing for the purchase of sites and the erection of new school buildings. It is a principle that has been adopted by practically every city school system in the country. The object of this report is not to debate the merits of the plan but rather to present the facts as they are related to the present expenditures of the Board of Education for this type of Debt Service.

**Meaning of "Debt Service" No. 1.** It is to be noted that the expenditures under this head are restricted entirely to two types of expenditures:

1. The first is for interest charges on all outstanding bonds.
2. The second is for the payment required for the redemption of outstanding bonds.

The very fact that the Board of Education may have purchased a given site in 1923, or that it erected a school building in 1923, has no necessary bearing upon the expenditures discussed in this chapter of the report. The whole question here is, how much money did the Board of Education spend from its 1923 appropriation for the purpose of paying interest on outstanding bonds, and for the purpose of paying such part of the principal of outstanding bonds, as the conditions under which those bonds were issued would legally require?

It ought further to be stated here that this factor of "Debt Service" is a good illustration of the danger of generalizing from the differences in the per capita costs of education in different cities. During the fiscal year 1923, for example, the entire expenditures of the Board of Education for this "Debt Service" amounted to \$2,043,052.32. \$818,052.32 was expended for the payments on principal and interest on the debts created for the erection of school buildings. The balance, \$1,225,000.00, was for the repayment of a current expense note, and thus represented a financing operation only.

Of the above expenditures for Debt Service, the sum of \$446,525.68 was used for Debt Service in the elementary schools only.

Since the total expenditures for all schools for the year 1923 amounted to \$6,549,838.20 while the expenditures for Debt Service amounted to \$818,052.32, it follows that the per cent of the whole that was used for Debt Service was 12.4%.

Since the total amount of money used for the elementary schools during the year 1923 was \$3,463,250.49, and the part of this used for Debt Service in these schools was \$446,525.68, it follows that 12.8% of all the elementary school expenditures was used for Debt Service.

It was necessary for the Board of Education, in preparing its budget to be submitted on December 31, 1922, for the year 1923, to start with this amount of money. This had to be paid regardless of the effect of this payment upon funds required for the current maintenance of the schools. Since this amount, therefore, must be included in the budget for current expenditures, its bearing upon the per capita cost of conducting the schools of Rochester is apparent.

In the city of Detroit, however, as well as in the city of Buffalo, all "Debt Service" under this head is assumed by the city as a whole and is

not a fixed charge against the Board of Education. It is, of course, obvious that the final results are the same so far as the gross cost to the city is concerned. But wherever the city itself does not thus make a fixed charge for "Debt Service" against the Board of Education, it follows that the per capita cost of such Board for the current expenses of the schools, is reduced accordingly.

**Meaning of "Debt Service" No. 2.** But there has developed in recent years another form of "Debt Service." Under a limitation imposed by the Constitution of the State, Rochester is not legally permitted to raise, for current expenditures during any one year, an amount in excess of 2% of the assessed valuations of real property for the preceding year. In 1918 Rochester found, as did most other cities, that it could not finance its current operating expenses under the legal limitations imposed.

Advantage was then taken of two conditions in order to meet this emergency. One was the constitutional provision by which funds required for Debt Service are not subject to the 2% constitutional limitation. In other words, the city can raise 2% for current operating expenses and as much more as may be required for the payment of such debts as may have been contracted. The second condition of which the city took advantage was a provision of the local charter by which the city has a legal right to borrow money for local current operating expenses in case of an emergency. Clearly the city faced an emergency due to the unprecedented conditions arising from the war. Each year, beginning in 1918, therefore, the city has borrowed certain funds for current operating expenses and has paid during the succeeding year the sums thus borrowed on short term notes. This is a second form of Debt Service that, of course, must be regarded as temporary in any principle of sound financing.

**Expenditures for Debt Service for 1923.** The itemized expenditures for Debt Service during the calendar year 1923, and the aggregate amount thus paid, are as follows:

Payment of principal on bonds issued for the erection of new school buildings, and the purchase of new sites	\$ 336,940.00
Interest charges on bonds issued for the erection of new school buildings and the purchase of new sites	452,326.19
Payment of principal of short term notes for money borrowed during 1922 for the current operating expense of 1922	1,225,000.00
Interest charges on money thus borrowed for current operating expenses of 1922	28,786.13
	<u>\$2,043,052.32</u>

**Comparative Expenditures.** During the year 1912 the Board of Education paid a total of \$25,000 for Debt Service. This payment consisted of \$25,000.00 for the payment of the principal on outstanding bonds issued for the erection of new school buildings and the purchase of sites. There was no Debt Service incurred for current operating expenses since the first borrowings thus required were made in 1918.

**Factors Responsible for Increased Expenditure.** The four factors that explain increased expenditures for 1923 over 1912 are operative here as elsewhere.

**Growth.** On the 31st day of December, 1902, the total number of persons registered in the public day and evening schools of the city during that calendar year was 25,491. Ten years later, or on the 31st day of December, 1912, the total number of day and evening school pupils registered during the year 1912 was 40,966. This showed an increase of 60.7% during this ten year period. On the 31st day of December, 1923, the records showed that the total number of day and evening school pupils registered during the calendar year was 67,458. Thus the increased number of pupils during this period was 64.7%. As shown on page 33 the per cent of increase for the day schools only was 14% from 1902 to 1912 and 83.8% from 1912 to 1923. It is thus apparent that had all other conditions remained the same, the load to be carried by Rochester in adequately housing its school children was heavier proportionately from 1912 to 1923 than it was for the period preceding. This factor of growth, therefore, has been an important factor in increased Debt Service costs.

**Depreciation of the Dollar.** Probably in no department has this factor been more substantially felt in increased expenditures than it has in financing school building construction. School building costs in Rochester have risen approximately 100% since 1912. Rochester, therefore, during the year 1923, was able to get for the money spent in the erection of new school buildings only 50% of the additional school building facilities that the same expenditures would have given during the year 1912. The operation of this factor is thus apparent.

**Increased Effectiveness of the Work.** Again it would not be legally possible to build in 1923 the type of school building that was built in 1912. Not only this, but the community sensitiveness to the importance of having our school buildings safe, durable, and sanitary, has so increased that regardless of legal requirements Rochester would not have tolerated in 1923 the type of school building construction used in 1912. The burning of Number 3 School during the forenoon when school was in session was one important factor that contributed to this increased sensitiveness on the part of the community. Fortunately, due to the effective fire drill arrangement, not a person was injured. The burning of other school buildings in the country, and in some cases with the loss of many lives, also made its contribution. The single story type of school building, of which Rochester has five, represents Rochester's effort to guarantee safety from the hazards of fire. During this period, therefore, standards have been so raised that today fire resistive construction is practically required throughout. It should be understood that this discussion does not apply to the design of the school building, but to the materials used in its construction.

But there has also been another direction in which this factor of increased expense, through attempts made to improve the effectiveness of the work, has operated. The outstanding example of this is the junior high school.

There were on December 31, 1923, 3964 seventh and eighth grade pupils under the junior high school organization. The junior high school represents an increased investment but it is believed it is bringing increased educational returns that justify the investment.

**Added Facilities.** Since 1912 it has been found practically necessary to add to the school buildings certain facilities that were not there in 1912, such, for example, as the doctor's office and nurse's room. These are essential if the work of the medical inspector and the school nurse is to be done to the best advantage. In four elementary school buildings the Board of Education has placed swimming pools. Because of the substantial increase in expenditures, due to the cost of operating these plunges, the Board of Education has for the time being discontinued building them.

### Financial Summary—1923

The following table shows at a glance the total expenditures for the various Units of the public school system in Rochester for the calendar year 1923. This table also indicates the per cent of the total expenditures which is chargeable to these several Units.

**TABLE 43**  
**Financial Summary—1923**

Units	Per Cent of Total	Instructional Service	Other Current Operating Expenses	Debt Service	Total
1. Kindergarten and Elementary	6.3%	\$ 248,755.01	\$ 110,389.07	\$ 54,629.54	\$ 413,773.62
2. Junior High	46.6	1,784,602.65	872,978.08	391,896.14	3,049,476.87
3. Senior High	19.3	623,991.18	501,846.35	137,031.94	1,262,869.47
4. City Normal	16.5	620,030.89	322,288.54	136,180.19	1,078,499.62
5. Other Teacher Training	.8	39,272.52	7,663.69	8,623.94	55,560.15
6. Special Education	.7	29,645.75	10,802.54	6,510.03	46,958.32
7. Continuation School	5.7	213,536.43	110,909.36	46,890.76	371,336.55
8. Adult Education	2.1	79,509.95	44,236.38	17,441.85	141,188.18
Summer School	1.7	72,391.75	23,064.64	15,894.76	111,351.15
	.3	13,464.00	2,407.10	2,953.17	18,824.27
	100%	\$3,725,200.13	\$2,006,585.75	\$818,052.32	\$6,549,838.20
Current Expense Note, see page 168.				1,225,000.00	1,225,000.00
				\$2,043,052.32	\$7,774,838.20

CHART XIV  
FINANCIAL SUMMARY 1923

Elementary Grades

Junior High

Senior High

Kindergarten

Special Education

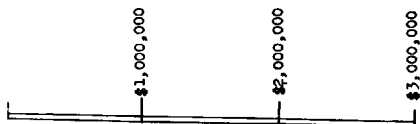
Continuation School

Adult Education

City Normal

Other Teacher Training

Summer School



## CHAPTER XII

### SCHOOL BUILDINGS

#### SECTION 1

#### ELEMENTARY SCHOOL BUILDINGS

##### Introductory Questions

1. What are the fundamental principles governing the purchase of sites and the location of school buildings in Rochester?
2. What is the general plan of building?
3. What are the State and local requirements with reference to class room size?
4. What materials are used in construction?
5. What rooms are necessary for the most efficient administration of the school other than regular class rooms?
6. What provisions are made in the construction of the school for the safety, comfort, and health of the child?
7. What systems of heating and ventilating are employed?
8. How many additional elementary school buildings are at present needed and how many of these have been definitely authorized?

**Introductory Statement.** The object of this chapter is to present some of the factors governing the location and design of schools. Provision is made for an intimate relation between the educational program and the building plan, the development of the school building being governed primarily by its adaptation to educational policies. Other important factors influencing the type and design are maximum safety, adequate natural lighting, good ventilation, practical economy and architectural beauty. A separate discussion of elementary, junior, and senior high school buildings follows:

**Location of Elementary Schools.** The fundamental principle governing the location of an elementary school is that pupils shall live within a radius of one-half mile from the school and shall not be obliged to pass by one school to attend another.

**Sites for Proposed Schools.** Sites for proposed schools are purchased before the land has been subdivided or improved. In this way, it is bought on the basis of acreage at about one-tenth of the cost of subdivided property. The new sites for elementary schools contain about five acres each. Buildings are so located on the plot that the class rooms face east and west

which requires a minimum width of site in this direction, of three hundred feet. When possible, sites are selected which are, or will be, bounded by three or four streets.

**General Plan of Buildings.** It has always been the policy of the Board of Education to erect complete school buildings consisting of administration quarters, auditorium-gymnasium, kindergarten, manual training, domestic science, doctors' and nurses' quarters, teachers' rest and lunch rooms and boiler plant, together with a suitable number of regular class rooms to care for the needs of the district, allowing for growth for a period of three years. Suitable provision is made in the original plan to permit further expansion to care for growth in the future.

**Types of Buildings.** Buildings of one, two and three stories have been erected in the past. The latest elementary school is of the one story type, although this type is not used except where land is inexpensive and where it is estimated that the needs of the district for a period approximating the life of the building, can be cared for by not more than twenty regular class rooms. The two story type of building is the one most used. Four of the five buildings on the immediate building program will be of the two story type. Three story buildings are not used extensively. One of the buildings on the immediate program will be of this type, replacing a worn-out building in a congested district where the site is somewhat restricted as to size.

**Class Room Size.** The standard class room is twenty-three feet nine inches wide, thirty feet long, and twelve feet three inches high. This size was adopted by the Board of Education twenty years ago and has remained unchanged throughout that time.

The City of Rochester employed an expert in school architecture to study the Board of Education design for new buildings and to recommend possible economies. Among his recommendations is one to reduce the class room width to twenty-two feet, whereupon the Board of Education again made a careful study which included a sketch plan for each of the eight grades and the manual training and domestic science rooms, showing the arrangement of the furniture and equipment in each. In no instance was it found that the width of the room could be reduced unless the wardrobe were removed from the side of the room. In the primary grades where the desks and aisles are smaller, the extra space is needed for the occupation table. In the upper grades the desks are wider and the aisles must be wider to insure safety in the movements of pupils in the calisthenic exercises.

The standard seating arrangement is for thirty-five pupils, seven desks being arranged in each of five rows. Many of the class rooms are seated for more than thirty-five in which instance eight desks are placed in a row. The minimum requirements of the State Department of Education are fifteen square feet of floor space and two hundred cubic feet of air space for each pupil. This permits a maximum capacity of forty-three pupils in our standard class room to meet these minimum requirements.

**General Construction.** The Board of Education has committed itself to a policy of erecting all school buildings of fire resistive construction.

This policy was established one year ago following an analysis of formal bids received upon two sets of plans for the same school, identical in every respect except that one called for fire resistive construction throughout while the other called for ordinary construction consisting of brick bearing walls, wood joist and roof construction. It was found that the fire resistive building cost less than 6% more than the building of ordinary construction. The fire-resistive building will cost less for maintenance and repairs and its freedom from fire hazard gives added comfort because of the sense of security.

**General Building Plan.** School buildings are erected without basement rooms but there is an air space of about five feet under the first floor construction, which necessitates a certain amount of excavation. The height at which the first floor is placed above the finished grade depends upon the depth of the sewer and the amount of earth to be excavated. Where school sites are sufficiently large it is found to be less costly to terrace around the building with this earth rather than to have it carted away. Ordinarily the first floor is placed between 2' 6" and 3' above the finished grade.

The consulting architect employed by the City of Rochester recommended that in the interest of economy the first floor be laid directly upon the ground. This plan was opposed by the Board of Education because of the innumerable complaints of cold floors that have come from teachers and pupils in the few class rooms where the floors are constructed in this manner. Because of the economies claimed, however, the Board of Education prepared complete plans and specifications providing the same facilities as the plans embodying the policies and standard practices of the past, but incorporating in this new set of plans the various suggestions of the consulting architect with the view of making available authentic data as to the economy of the suggested plan. Notwithstanding the fact that the plan of the consulting architect provided for a class room 22' x 30' and the plan of the Board of Education for class rooms 23' 9" x 30' and the plan of the consulting architect called for the first floor laid directly on the ground and but six inches above the finished grade, while the plan of the Board provided for the first floor 2' 6" above the ground with an air space of five feet under the first floor construction, yet formal proposals received from bidders showed that a complete school building with twenty-two regular class rooms could be built in accordance with the plans of the Board of Education at a lower cost.

Provision for future additions is made in the original plan particularly with reference to sufficient space in the boiler room for additional boilers and in the heating and ventilating, plumbing, electrical services, etc.

**Structure.** Buildings have skeleton frames of reinforced concrete, concrete floor and roof slabs. The exterior walls are of face brick backed with hollow brick with an air space between to reduce the heat loss. The exterior cornice, coping, window trim, etc., are of cut cast stone or Indiana limestone. Interior corridor walls and cross partitions are of gypsum tile and are non-bearing which gives elasticity to the building plan so that it may be readily adapted to necessary changes. It also permits of the expansion of any unit or group of units at a minimum expense.





Martin B. Anderson School No. 1—One-story Building

**Standards and Arrangements.** In the design of buildings the aim is to meet the educational needs and make a high percentage of floor space available for instruction. The percentage of floor space of the most recently designed elementary school, as determined in accordance with the rules of the National Education Association Committee on Standardization of School Buildings, is as follows:

Walls and partitions	7.30%
Flues	2.20%
Corridors and Stairs	24.50%
Accessories	0.00%
Instruction	54.80%
Administration	11.20%
Total 100%	

**Wardrobes.** Wardrobes are two feet three inches deep and are inside the class room along the corridor wall. They have sliding doors, each containing a large panel of natural slate blackboard. These doors slide upward and when open expose the clothing. Ventilation is provided by the air passing under the wardrobe doors when down, the doors reaching to within a few inches of the floor, thence passing upward through the wardrobe to and out through a foul air flue.

**Auditorium-Gymnasium.** To meet the needs of an elementary school there is one room which serves the purpose of an assembly hall, auditorium, and gymnasium. This room is built approximately forty-eight feet wide and sixty-five feet long to the face of the proscenium wall, and contains a balcony and a moving picture booth. There are no permanent seats because of the gymnasium work. The auditorium is equipped with a stage which permits of school plays, debating, addresses and various forms of student

and community activities. The chairs used for assemblies are piled on trucks and when not in use are kept in a chair storage room off the assembly room. The auditorium-gymnasium is on the first floor and is so arranged that it can be easily reached by the public when used for community activities without throwing open the entire school building.

**Kindergarten.** The kindergarten unit, while integral with the school building, might be considered as a distinct unit in that it has its own entrance, wardrobe, toilet rooms, drinking fountain, lavatory, and provision for the preparation of lunches. The kindergarten has a southern exposure, and consists of one large room containing a bay window, fireplace, and built-in book cases, off of which there are two alcoves equipped with blackboards and cases, each alcove being large enough to accommodate a teacher and twenty-two pupils at table work. One feature of the kindergarten is low built-in window seats, the kindergarten windows having over them transoms containing leaded silhouettes of characters taken from Mother Goose rhymes.

**Domestic Science Room.** The Domestic Science Room consists of one regular class room unit without the wardrobe, with a capacity for twenty pupils. The equipment consists of ten domestic science tables with a gas stove and oven at the end of each table. There is a sink with two drain boards for each two tables. The room also contains two laundry trays and two folding ironing boards, a teacher's locker and three cupboards for storage of materials.

**Teachers' Lunch Room.** This consists of a regular class room unit without a wardrobe which is partitioned off, one-third being devoted to a service room which is next to the food laboratory. This service room contains



Sylvanus A. Ellis School No. 26—Two-story Building

a gas stove, sink, refrigerator, cupboards, etc. The remaining two-thirds of the unit forms the teachers' lunch room which comfortably seats thirty teachers at one time.

**Manual Training Room.** This room is a regular class room unit without a wardrobe. It has a capacity of twenty students. The equipment consists of four benches running lengthwise of the room, two tool cabinets, lumber rack, etc.

**Administration Quarters.** The Administration Quarters occupy one class room unit subdivided to form a waiting room, clerk's office, principal's office, toilet room, and store room.

**Teachers' Rest Room.** A small room fitted for a teachers' rest room is provided. Leading off of this is a small room containing a toilet and lavatory.

**Dispensary Room.** The importance attached to health education requires that rooms in the school building be provided for this administration. This group of rooms contains a waiting room and consultation rooms for doctor and nurse, with toilet, lavatory and dressing room.

**Corridors, Entrances and Exits.** The arrangement of corridors, entrances, and exits is such as to give balance to the building as well as to provide for utility, convenience, and safety. The corridors are of a width to allow pupils to pass in an orderly manner from one part of the building to another. Main corridors are ten feet in width, the secondary corridors eight feet in width. Each corridor is well lighted and leads directly to an exit, the exits being so placed as to provide a safe outlet from each room in case of fire.

**Stairways.** Stairways leading to the upper floor are at opposite ends of the corridors. No exterior fire escapes are used, there being a sufficient number of stairways to permit rapid exit from the building. Stairs are of fire-proof construction and are forty-four inches wide, which prevents the pupils marching more than two abreast and this allows each pupil the protection of a hand rail. The balustrades are of closed construction. Stairways are separated from the corridors they serve by Kalamein partitions and doors, the doors being held open but equipped to close automatically in case of fire.

**Doors and Hardware.** Exterior doors contain one large panel of polished plate glass. These exit doors are arranged in groups with a mullion between each door, each door being equipped with a door check and panic bolt. The doors to class rooms are at the teacher's end of the room and are of flush type containing a small light of glass in the upper part. All hardware is solid bronze, polished.

**Floors.** Buildings on the immediate program are to have surface flooring of brown battleship linoleum except in the toilet rooms and sink rooms which are of terrazzo. The linoleum will be cemented to the concrete floors and turned up against the walls, forming a linoleum covered base finishing flush with the plaster and being held in place by means of a zinc strip which conceals the joints and serves as a ground strip for the plaster.

Linoleum surface flooring is to be used on all corridors, auditorium-gymnasium, class rooms, kindergartens, administration quarters, manual training, and domestic science rooms. The decision to use linoleum was made as the result of formal bids upon the surface flooring for School No. 39 which showed that linoleum laid in this manner costs less than maple flooring on wood sleepers. The use of this flooring makes the use of movable types of furniture desirable.

**Plastering.** All walls and ceilings are finished with a smooth and hard white putty-coat finish. The walls are permitted to stand about two years before they are painted.

**Interior Decorations.** Ceilings are painted cream white with an interior gloss lithopone paint. Side walls above the chair rail are painted a rich buff and below the chair rail or the dado, a light tan, all smooth surfaces being stippled.

**Roofing.** The covering on roofs is a built-up three-ply all rag felt roofing, mopped with specially prepared asphalt suitable to this particular climate and to the pitch of the roof.

**Fire Alarms.** Every building is equipped with an electric fire alarm system, with gongs so located in the corridors that they can be heard in every part of the building. Signal stations from which the alarm may be sounded are located so that a person need not go more than 125 feet to reach one. Outside gongs are provided for recall of pupils to the building.

**Window Lighting.** Lighting of each class room is by unilateral banked windows with east or west exposure. The glass area is one-fifth of the floor area of each room. The light comes from the left of the pupils and the windows are kept as close to the ceiling as practicable so as to throw the volume of light across the room.

Stairways and corridors are well lighted by both natural and artificial light.

**Electric Lighting.** The rooms are lighted by semi-direct lights, there being four ceiling lights in each class room so arranged as to give an even distribution of light at the top of the desks, with an intensity of between five and six foot-candles. Corridor lights are arranged to give two foot-candles at the floor and the auditorium-gymnasium lighting to give three and one-half foot-candles at the floor.

**Window Shades.** Translucent shades of an ecru color are used in all rooms. Each window is equipped with two shades operated by double rollers placed near the level of the meeting rail. These shades transmit a considerable percentage of the light, but diffuse it. In assembly halls and rooms in which slides or motion pictures are projected, opaque shades are installed in window boxes.

**Heating and Ventilation.** The boiler and coal storage rooms are located outside the main walls of the building to insure maximum safety and to provide for convenience of expansion. The heating and ventilating is by the split system. Steam is generated in return tubular boilers supplying

the radiators located under the windows on the outside walls. These radiators are under automatic thermostatic control, a thermostat being located in each room. Air for ventilation is taken from the top of the building, tempered, reheated, humidified and sent into the class rooms at the rate of thirty cubic feet per minute for each pupil, a velocity that will permit satisfactory air motion without causing discomfort. The temperature and humidity of the air entering the class room are also under automatic control. Air washers are installed in school buildings located in factory, industrial, and railway districts. Arrangement is made to permit of the re-circulation of air for the purpose of rapidly warming the building before the pupils arrive in the morning. The heating and ventilation plant is designed to give adequate air movement, proper humidity, normal temperature and absence of dust and odors. The heating system is installed so that the auditorium-gymnasium, toilet room and the rooms which will be used for checking clothing during evening use may be separately heated. This obviates the necessity of operating the entire plant when only a part of the building is in use.

**Plumbing.** On each floor there is at least one toilet room for girls and one toilet room for boys. A lavatory is placed in a recess in the corridor near each toilet room door. Close by each lavatory is placed a drinking fountain. On each floor there is at least one sink room which contains a slop sink and supplies for janitorial work.

**Telephones.** A telephone system connects the office with each of the rooms in the entire building. These are Private Branch Exchanges installed by the local telephone corporation.

**Vacuum Cleaner.** Each building is equipped with a permanent vacuum cleaning system. Outlets are piped to each room and the corridors. A connection is made in the boiler room for cleaning the boiler flues.

**Interior Finish and Trim.** The interior is simple and straightforward. The wood work, reduced to a minimum, is of ash or red oak, natural finish, varnished.

**Equipment.** Each class room has built-in equipment, genuine slate blackboards across the front of the room and the rear of the room. Above this blackboard is a fifteen-inch cork tacking strip. At the teacher's end of the room is a sliding blackboard having two movable leaves, each containing a single piece of slate, 3' x 6'. In lieu of the sliding board a swinging board consisting of four leaves 3' x 3'6" may be used. Along the side of the room built in flush with the wardrobes are two book cases and a locker for the teacher. Other equipment standard in each room is a telephone and a thermostat controlling the steam supply to the radiators with a thermometer on its cover. Desks for the new buildings having linoleum floors will be of the Moulthrop type.

**Clocks.** New buildings designed to house a traditional type of organization contain only the conduit for the wiring necessary in electric clock systems. New buildings designed to house the semi-departmental, or a platoon type of organization, are equipped with master and program clocks



Nathaniel Rochester School No. 3—Three-story Building

located in the administration quarters and with a secondary clock and bell in each of the rooms.

**The Immediate Elementary School Building Program.** There are five elementary school buildings to be erected just as soon as funds are made available. Authorization for two of these buildings has already been made, leaving three to be provided for. The five buildings are:

**Andrew J. Townson School Number 39.** This will be a complete elementary school with fourteen class rooms with provision for two subsequent additions, the first to consist of eleven class rooms and the second of eight class rooms. This school will serve a district the needs of which have been cared for by a frame dwelling house and by portable buildings at three neighboring schools.

Contracts for this building were awarded Aug. 11, 1924. It is estimated that the complete cost of this building will be approximately \$323,000.

**Charlotte School Number 38.** This school will be a duplicate of the Andrew J. Townson School Number 39. It will care for the needs of a district which is now served by an annex, formerly a factory building, and ten class rooms in buildings of the portable type. Contracts for this building were awarded Sept 29, 1924. The complete cost will be approximately \$317,000.00

**Central School Number 5.** This school will be built near the center of the city and will serve a district the needs of which are now cared for by an antiquated and unsanitary building and two annexes, one a former store and the old Nazareth Academy. Plans for this building are under way. Preliminary sketches provide for a complete school building with thirty-five class rooms and in addition it will have two play rooms and a lecture room, thereby providing suitable accommodations for the semi-departmental or platoon type of organization. The estimated cost of this building is \$560,000.

At the present time classes for crippled children are housed at one of the annexes serving this district. It is not as yet definitely decided whether to provide for these classes in a separate building or whether additional accommodations to care for them will be provided in the new Central School Number 5. If the latter course is decided upon, this building will cost more than the estimate of \$560,000. The Board of Education, in its request for an appropriation for a building to house the classes for crippled children, estimated the cost at \$125,000.

**John W. Castleman School Number 40.** This school will serve a district the needs of which are now cared for by a dwelling house, a garage and three portables. It will be a duplicate of the Andrew J. Townson School Number 39.

**Lexington School Number 34.** This school will take the place of an antiquated and unsanitary building and do away with four portables. It will be a duplicate of the Andrew J. Townson School Number 39.

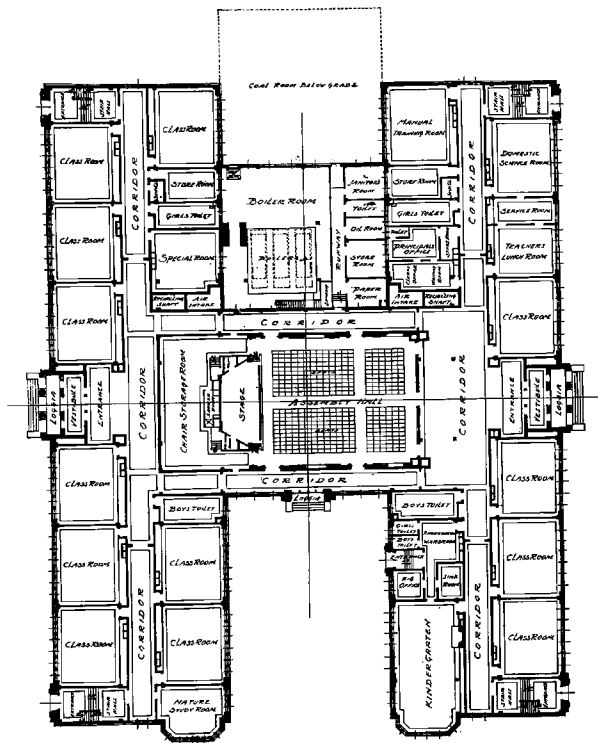
The plans for the Andrew J. Townson School Number 39 are given below:



South Elevation

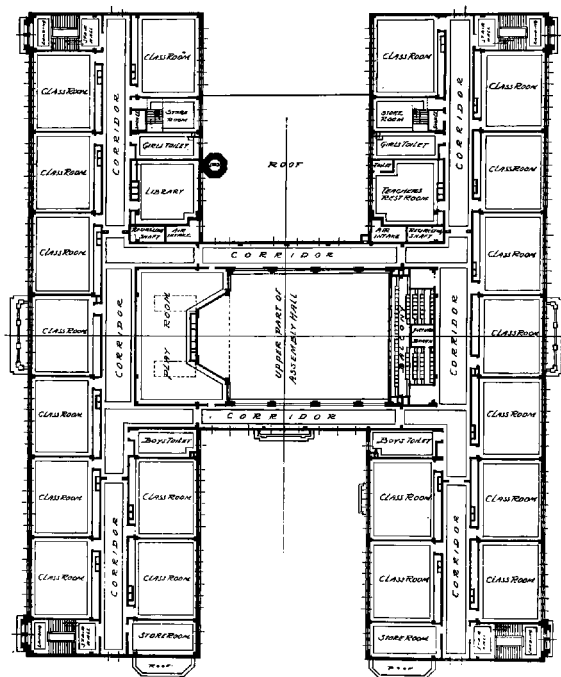


East and West Elevations

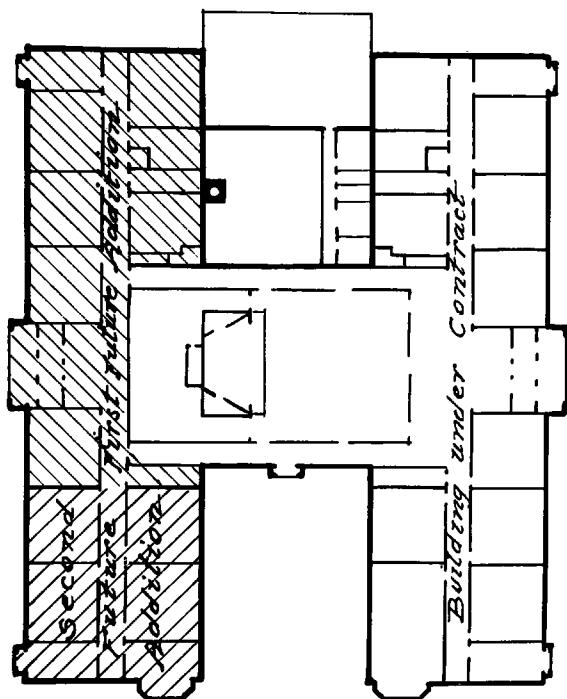


First Floor Plan





Second Floor Plan



Plan Showing Order of Future Additions

## SECTION 2 JUNIOR HIGH SCHOOL BUILDINGS

### Introductory Questions

1. What special facilities are provided for boys and girls in the junior high schools?
2. What was the cubic foot cost of the Madison and the Monroe Junior High Schools and what expenditures have been included in these costs?
3. How do these per cubic foot costs compare with the per cubic foot costs of junior high schools in other cities?

**General Building Plans.** In January, 1920, contracts were awarded for the Madison Junior High School and in June, 1921, for the Monroe Junior High School. The room arrangement of one school is identical with the other, the only difference being in the exterior design. The buildings are of fire-resistive construction and are provided with wardrobe equipment, heating and ventilating, automatic temperature control, master, program and secondary clocks, etc., as set forth in detail in the discussion of the elementary schools. The regular class rooms are identical with those in the elementary schools, and special provisions have been made for science, vocational, and health education rooms. In the report on "The Junior High Schools of Rochester, New York," the different rooms are listed together with the cost of each article of furniture and equipment in these rooms. Typical construction exists throughout the buildings whether rooms are to be used for academic or vocational work. Dividing partitions have been placed to permit of room arrangements made necessary by junior high school work. This will provide sufficient elasticity to allow departmental changes in organization without becoming involved in costly building alterations.



Madison Junior High School

**Gymnasium.** Each of these schools has two gymnasiums, one for boys and one for girls, each being 60' wide by 90' long, containing a spectators' gallery across one end. Underneath the boys' gymnasium are group showers, locker and dressing rooms and quarters for the health teacher, examination rooms, etc. Under the girls' gymnasium there are individual showers, dressing booths, locker rooms, and quarters for the health teacher, examination rooms, etc. The dressing booths are of wood, painted white. The

shower stalls for both the girls and boys are of marble. In selecting a material for these shower stalls, the Board of Education considered the relative costs and merits of marble, slate, alabaster stone and metal. Marble was decided upon, although its first cost was highest, because of its non-absorbent properties and the ease with which it can be kept clean and free from disfigurement and because of its lower maintenance cost.

**Swimming Pool.** There is one swimming pool in each of these schools, situated between the girls' and boys' gymnasiums. The pool is thirty feet wide and seventy-five feet long, containing about one hundred thousand gallons of water. The bottom of the pool contains direction and warning lines. The sides of the pool are of glazed tile, while the floor is of non-slip finished tile. There are but two entrances to the pool, one through the girls' shower room and the other through the boys' shower room. This helps the instructor to enforce the regulation that each person entering the pool must first have taken a shower bath and pass inspection before entering the pool.

During the past school year there were approximately 72,000 admissions to each of these plunges.

**Treatment of Water.** The water for the pool is recirculated, passing through a sand filter and heater. At the Madison Junior High School the water is purified with a chlorinator, the pre-determined amount being admitted into the supply by mechanical means, while at the Monroe Junior High School the water is purified by means of an ultra-violet ray equipment. Weekly chemical and bacterial analyses are made by the bacteriologist, by which are determined the bacterial count, and chlorides, also presumptive test for *B. Coli* and temperature of water and room. It was not until the weekly analyses were made of the water in the various pools, that school officials were able intelligently to regulate the purifying agencies, and to insure satisfactory results.

**Building Costs.** The cubic foot cost of Madison Junior High School was 42.1 cents. The Monroe Junior High School cost 36.7 cents per cubic foot. It has been stated that the buildings were identical as to plan, and varied only in exterior design. An explanation is due, therefore, as to the difference in the cubic foot costs. Two factors are responsible—the first being the unusual foundations for the Madison Junior High School which was erected on the site of a former stone quarry necessitating foundations more than forty feet below the finished grade. The other factor is the higher cost of labor and materials in January, 1920, as compared with June, 1921.

**Comparative Costs.** The cubic foot costs stated above for the Madison and Monroe Junior High Schools include architects and engineers fees, excavation, grading, foundation and the superstructure, with its reinforced concrete, structural steel, masonry, carpentry work, heating and ventilating, automatic temperature control, blower system, electric clock system, electrical work and fixtures, elevator, painting, plumbing, equipment for filtering and purifying water for swimming pool, roofing and sheet metal work, tile and marble work, vacuum cleaner system, and slate black boards. There are built-in wardrobes, along the corridor wall on the inside of the room, equipped with sliding doors, each of which contains a black board slate panel.

The following list of some of the Junior High School buildings erected in various parts of this country about the time the Rochester junior high schools were under construction, is of interest as a matter of comparative costs. In some of these schools the cubic foot cost does not include some of the items listed in the Rochester cost figures.

City	School	Cost per cu. ft.	Remarks
Hartford	Bulkeley High	.56	Does not include architect's fees
Bethlehem	Nitschmann Junior High	.53	
Worcester	Junior High	.50	Does not include architect's fees
Warren	East Junior High	.48	
Warren	West Junior High	.48	
Hartford	Weaver High	.47	
Cincinnati	Harriet Beecher Stowe Jr. H. & Elem.	.455	Does not include architect's fees
Cleveland	Patrick Henry Junior High	.446	
Bayonne	Junior High	.43	
Rochester	Madison Junior High	.421	
Lakewood	Lakewood Senior High	.42	Does not include extras to contracts
Cleveland	Collinwood Senior High	.405	
Trenton	Elementary and Intermediate	.403	Does not include architect's fees
Detroit	South Western High	.39	
Detroit	Hutchins Intermediate	.39	
Lakewood	Horace Mann Junior High	.385	
Somerville	North Eastern Junior High	.38	
Bethlehem	Liberty High	.38	Does not include lockers or wardrobes
Birmingham	Woodlawn High	.374	Does not include lockers or wardrobes
Cleveland	Thomas Jefferson Junior High	.374	
Detroit	Barbour Intermediate	.37	
Detroit	Jefferson Intermediate	.37	
Rochester	Monroe Junior High	.367	
Trenton	Junior High No. 4	.36	Does not include architect's fees and lockers or wardrobes
Cleveland	John Adams High	.36	
Pueblo	Junior High	.36	
Trenton	Junior High No. 3	.356	Does not include architect's fees and lockers or wardrobes
Medford	Junior High School	.356	

### SECTION 3

#### SENIOR HIGH SCHOOL BUILDINGS

##### Introductory Questions

1. What senior high schools are maintained in Rochester and what is the present capacity of each?
2. What additional senior high school facilities will be required in the near future?

Rochester has at the present time, four senior high schools, East High, West High, Charlotte High and Kodak High. Of these four, but two are regular high school buildings.

**East High School.** This is a regular high school building located in the eastern section of the city. It was built in 1901 for a capacity of 1,200 pupils. Alterations have been made since that time so that today this building is caring for about 2,500 pupils. The requirements of this district became so great that it was necessary to lease a factory building and to renovate and refit an abandoned elementary school building, using them as annexes to the East High School. Even with these additional temporary quarters, some part time sessions are needed. Relief for this section of the city will be afforded by the contemplated Northeast High School, for which the Board of Education has already purchased the site.



West High School

**West High School.** This is a regular high school building, contracts for which were awarded in 1903. In design and arrangement the building is similar to the East High School, being designed for a capacity of 1,200 pupils. Alterations in this building to accommodate the present curriculums permit of a larger capacity so that at the present time this building is caring for 1,500 pupils.

**Charlotte High School.** This building formerly served the school district of Charlotte, about seven miles north of Rochester. The city lines were extended to include this district. The building formerly housed children from the kindergarten through all the grades and the senior high school,

but the enrollment in the senior high school became so large that it was necessary to alter the entire building so that it might be used for high school purposes only, all other pupils being cared for in portable buildings erected on the school site and in a nearby annex, formerly a factory building. The high school building, therefore, is one that was not primarily designed for high school purposes, and is a makeshift which will have to be replaced in the near future.

**Kodak High School.** This school is located in the northwestern section of the city and served the needs of a school district in the town of Greece, prior to its annexation to the city. It consists of one building with two additions, and houses pupils from the kindergarten through the senior high school. It is unsatisfactory as a high school building but undoubtedly will continue to be used as such until the time the new Northwest High School is erected, a suitable site for which is being sought.

**The Proposed Northeast High School.** The Board of Education has purchased a site and has authorized the preparation of plans and specifications for a building which, when finally completed will have a capacity of approximately twenty-two hundred pupils. A study of plans has just been begun on this building. A majority of the large high schools recently erected throughout the country will be carefully studied before the final plans are approved by the Board of Education.

# INDEX

## A

	Page
Administration and Supervision, Cost of .....	23, 28
Adult Education .....	2, 101-113, 135, 136
Aims:	
Americanization Classes .....	109
City Normal .....	94-100
Continuation School .....	68
Evening Schools .....	101
High School .....	73
Kindergarten .....	9
Primary Education .....	13, 15
Rochester Shop School .....	91
Special Schools and Classes .....	46, 59
Summer Schools .....	65
Alterations of Old Buildings, Cost of .....	164
Americanization Classes:	
Aims .....	109
Americanization Work in the first Evening Schools .....	106
Appointment of Director of Immigrant Education .....	107
Classification of Students .....	107
Cost .....	110, 135
Factors Responsible for Increased Expenditure .....	111-113
Organization and Enrollment .....	108
State Requirements .....	113
Textbooks and Leaflets Used .....	110
Appointment, Requirements for .....	44
Arithmetic, Instruction in	
Aims and Cost of .....	15
Special Subject Teachers for .....	24, 25
Summary of Cost for .....	21
Time Schedule for .....	14
Art Education .....	129, 135, 136, 137
Assistant Superintendents of Schools .....	117, 120, 121, 122, 124
Attendance Officers .....	119, 120, 121, 122, 124
Auditorium-Gymnasiums, Construction of .....	176
Auxiliary Agencies:	
Books and Supplies for Book Rentals and Indigents .....	153, 156
Boys' and Girls' Clubs .....	155, 156
Comparison of 1912 and 1923 Costs .....	156
Domestic Science Lunch Rooms .....	154, 156
Grade Library Books, Supplies and Salaries .....	152, 156
High School Lunch Rooms .....	154, 156
Milk Distribution .....	154, 156
Public Meetings, Exercises .....	155, 156
Summary of Costs .....	156
Transportation of Pupils .....	153, 156

## B

Board of Education, Election and Duties of .....	115, 120, 121, 122, 123, 124
Bond Issues .....	167-172
Book Rental and Indigent Costs .....	153, 156
Boys' Clubs, Cost of Maintaining .....	155, 156
Buildings and Sites for 1923, Cost of .....	164-169
Buildings, Construction of School .....	117, 173-190
Buildings, Repair of .....	143, 144, 149, 150
Buildings, Rental of .....	158, 161
Business Education, Department of .....	133, 135, 136, 137, 139

## C

Capital Outlay Expenditures (made from Current Expense Fund):	
Alterations of Old Buildings .....	164
Buildings and Sites, New .....	164
Equipment .....	164
Factors Responsible for Increased Expenditures .....	166
Summary of .....	165



	Page
Central Business and Educational Administration:	
Assistant Superintendents of Schools, Appointment and Duties of .....	117, 120, 121, 122, 124
Attendance Officers .....	119, 120, 121, 122, 124
Board of Education, Election and Duties of .....	115, 120, 121, 122, 123, 124
Comparative Salary Expenditures for 1912 and 1923 .....	122, 139
Confidential Examiner of Accounts .....	116, 118, 120, 121, 123, 124
Departments, Functions and Cost of .....	115
Director of Teacher Employment and Certification .....	119, 120, 121
Factors Responsible for Increased Expenditures .....	122-123
Purchasing Agent .....	116, 118, 120, 121
Secretary of Board, Appointment and Duties of .....	116, 120, 121
Summary of Costs for .....	120, 121, 122
Superintendent of Buildings, Appointment and Duties of .....	117, 120, 121, 122, 124
Superintendent of Schools, Appointment and Duties of .....	116, 120, 121, 122, 124
Work Permits, Department of .....	119, 120, 121, 122, 124
Central Supervision of Instruction:	
Comparison, Number on Staff in 1912 and 1923 .....	137
Comparative Salary Expenditures, 1912 and 1923 .....	136, 139
Departments, Functions, and Costs of Central Supervision of Instruction .....	127
Factors Responsible for Increased Expenditure .....	137-144
Organization and Salary Schedule of Supervisory Department .....	126-140
Child Study Department .....	133, 135, 136, 137, 139
Citizenship, Instruction in (see Americanization Classes).	
Civics (see Social Civics).	
Class Room Instruction .....	23, 28, 43, 45
Class Room, Standard Size of .....	43, 45, 174
Clerical Assistants .....	24, 28, 31, 32
Compensation Payments .....	160, 161
Confidential Examiner of Accounts .....	116, 118, 120, 121, 123, 124
Constitutional Debt Limit .....	169
Continuation School, The	
Aims .....	68
Courses Offered .....	70
Distribution of Costs .....	72
Pupil Hour Costs .....	72
School Program .....	70
State Requirements .....	69
Convalescent Children, Special Classes for .....	55, 58
Cooking, Instruction in .....	26, 27, 39, 42
Costs:	
Americanization Classes .....	110-113
City Normal School .....	97-100
Current Operating Expenses .....	114-125
Elementary Grades .....	15-45
Evening Schools .....	106
Kindergarten .....	9-12
Rochester Shop School .....	93
Senior High Schools .....	85-90
Crippled Children, Class for .....	50
Current Operating Expenses:	
Auxiliary Agencies .....	151-158
Capital Outlay Expenditures from Current Operating Expense Fund .....	163-166
Central Business and Educational Administration .....	114-125
Central Supervision of Instruction .....	125-140
Fixed Charges .....	158-163
Maintenance and Operation of School Plant .....	140-151
Meaning of .....	2
Summary of Costs for 1923 .....	115

## D

Death and Quarantine, Salary Allowed for .....	160, 161, 162
Debt Service:	
Factors Responsible for Increased Expenditure .....	170
Meaning of .....	168, 169
Total Expenditures for 1923 .....	168, 169
Directors .....	126
Domestic Art (see Sewing).	
Domestic Science (see also Cooking).	
Construction of Domestic Science Rooms .....	177
Lunch Rooms .....	154, 156, 157
Drawing (see also Art Department) .....	14, 19

## E

	Page
Electrical Course .....	91
Elementary Grades, The .....	
Aims and Costs, Specific .....	15-22
Aims of Instruction, General .....	13
Auxiliary Agencies, Expenditures for .....	166
Capital Outlay, Expenditures for .....	165
Central Administration, Expenditures for .....	120, 121
Costs, Summary of .....	22
Debt Service, Expenditures for .....	167-172
Fixed Charges, Expenditures for .....	158-163
Growth in Enrollment .....	33
Increased Expenditures of .....	32-45
Instructional Costs .....	23-45
Operation and Maintenance of School Plant, Expenditures for .....	140-151
Other Current Operating Expense for .....	115
State Requirements and Support of .....	43-45
Elementary Grades and Kindergarten, Department of .....	127, 135, 136, 137
Elementary School Unit, The .....	1, 13-45
Equipment, Cost of .....	159, 161, 164, 165
Evening Schools:	
Commercial Courses .....	102
Cost of Evening School Instruction .....	105
Evening Elementary Schools, Grade Work in .....	102
Evening High Schools, Advanced Work in .....	102
Health Courses .....	103
Homemaking Courses .....	103
Junior High and Vocational Schools .....	102
Extension Courses for Teachers .....	37, 38

## F

Factors Responsible for Increased Expenditures:	
Depreciation of the Dollar .....	11, 36, 86, 98, 112, 149, 157, 166, 170
Efforts to Improve the Effectiveness of the Work .....	36, 151, 158, 170
Growth .....	33, 34, 67, 86, 149, 157, 166, 170
Increased Salary Schedules .....	11, 35, 36, 67, 86, 105, 112
Increased Training .....	11, 36, 67, 98, 105, 112
Fixed Charges:	
Compensation Payments .....	160, 161, 162
Contributions to Rochester Teachers' Association .....	161, 162
Insurance .....	159, 161, 162
Pensions .....	158, 161, 162
Refunds and Other Expenditures .....	160, 161, 162
Renting of Buildings and Equipment .....	159, 161, 162
Salary Allowed for Death and Quarantine .....	160, 161, 162
Salary Allowed for Illness .....	160, 161, 162
Taxes .....	160, 161, 162
Floors, Construction of .....	178
Foreign Born, Instruction for the .....	50, 66, 106-113
Foreign Pupils, Special Classes for .....	50, 58
Fuel, Cost of .....	147, 148, 149

## G

Geography, Instruction in .....	17
Aims and Costs .....	14
Time Schedule for .....	155, 156, 157
Girls' Clubs, Cost of Maintaining .....	141, 142, 150
Grounds, Upkeep of .....	33, 34, 67, 75, 86, 149, 157, 166, 170
Growth in Enrollment .....	

## H

Health Education:	
Aims and Costs of .....	17
Salaries of Directors and Supervisors .....	129, 135, 136, 137, 139
Special Subject Teachers .....	24, 25, 26, 27, 28, 39, 42
Summary of Costs of .....	21, 27, 28
Time Schedule for .....	14
Heating and Ventilating .....	179
High School Lunch Rooms .....	154, 156, 157

	Page
History, Instruction in	
Aims and Costs	17
Summary of Costs for	21
Time Schedule for	14
Home Economics, Department of	131, 135, 136, 137
Household Arts	14, 19, 21
Hygiene (see Health Education).	

## I

Illness, Salary Allowed for	160, 161, 162
Indigents	153, 156, 157
Industrial (Practical) Arts	19, 21
Industrial Science, Instruction in	92
Instructional Service Expense:	
Elementary School	23-46
Meaning of	2
Insurance	159, 161, 162
Interest Charges	169

## J

Janitor Supplies, Cost of	147, 148
Janitors and Other Employees, Salaries of	144-147, 148, 149, 150
Junior High School Buildings:	
Building Costs	187
Comparative Costs	187
Construction of	185-188
Junior High Building Costs in Other Cities	188
Junior High School Grades and Citizenship, Department of	2, 5, 128, 135, 136, 137, 139

## K

Kindergarten, The	
Aims and Costs of	9-12
Construction of Kindergarten Rooms	177
Growth in Enrollment	33
Other Current Operating Expenses	115
Salary Schedule for	43
Summary of Costs	22
Teachers	11, 31, 32

## L

Land in Sites for Future Schools in Leased Property	143
Land Used for Each School, Amount of	141
Language, Instruction in:	
Aims and Costs of	15
Summary of Costs for	16
Time Schedule for	14
Leave of Absence (see Sabbatical Year Privilege).	
Lectures, Special	38
Library Books, Grade	152, 156, 157
Light and Power, Cost of	147, 148, 149, 150
Lip Reading Classes, Special	54, 58
Literature	14, 19, 21
Lunch Rooms:	
Domestic Science	154, 156, 157
Teachers' Lunch Room	177

## M

Machine Department, Instruction in	92
Maintenance of School Plant:	
Amount of Land in Sites for Future Schools in Leased Property, etc.	143
Amount of Land Used for Each School	141
Factors Responsible for Increased Expenditure	149
Maintenance of Mechanical Equipment	143, 144, 149, 150
Maintenance of Teaching and Other Equipment	144, 149, 150
Repair of Buildings, Exterior	143, 144, 149, 150
Repair of Buildings, Interior	143, 144, 149, 150
Summary of Costs for	144, 149, 150
Upkeep of Grounds	141, 144, 149, 150

# INDEX

195

	Page
Manual Training.....	14, 19, 21, 26, 27, 132, 135, 136, 137, 178
Mechanical Drafting, Instruction in.....	92
Mechanical Equipment, Maintenance of.....	143, 144, 149, 150
Mentally Retarded, Special Classes for the.....	48, 58
Mentally Superior, Special Classes for the.....	47, 58
Milk Distribution, Cost of.....	154, 156, 157
Monroe County Tuberculosis Sanatorium.....	63, 64
Music.....	14, 19, 21, 25, 26, 27, 28, 39, 41, 130, 135, 136, 137, 140

## N

Normal School, The City	
Distribution of Costs.....	97-100
Factors Responsible for Increased Salary Schedule.....	98-100
Increased Salary Schedule.....	98
Organization.....	95
Practice Department, The.....	96
Pupils, Number of.....	96
Purpose and Advantages.....	94
Relation of the State to the City Normal School.....	100
State's Contribution to Maintenance.....	99
Teachers, Number of.....	96
Theory Department, The.....	95
Nutrition Classes, Teachers and Physicians.....	27, 28, 39, 40, 41, 139

## O

Office Assistants (see Clerical Assistants).	
Open Air School for Anæmic Children.....	61, 64
Operation of Plant:	
Factors Responsible for Increased Expenditure.....	149
Fuel.....	147, 148, 149, 150
Janitor Supplies.....	147, 148
Janitors and Other Employees.....	144-147, 148, 149, 150
Light and Power.....	147, 148, 149, 150
Other Expenditures.....	148, 149, 150
Summary of Costs for.....	149, 150
Telephones.....	148, 149, 150
Water.....	147, 148, 149
Orphan Asylums.....	63, 64

## P

Part Time School Unit (see Continuation School Unit).	
Pattern-Making Department, Instruction in.....	92
Penmanship, Department of.....	14, 15, 21, 131, 133, 136, 137
Pensions, Payment of.....	158, 161, 162
Physical Defects, Special Classes for Those Having.....	50, 53, 54, 55, 58
Physical Training (see Health Education).	
Physiology.....	14, 21
Pre-Vocational School for Boys.....	59
Primary Education.....	9-22, 23-45
Principals.....	24, 28, 31, 32, 44, 139
Principals' Assistants (see Clerical Assistants).	
Public Meetings, Exercises.....	155, 156, 157
Purchasing Agent, The.....	118, 120, 121, 122, 124

## R

Reading, Instruction in	
Aims and Costs of.....	15
Summary of Costs for.....	21
Time Schedule for.....	14
Refunds and Other Expenditures.....	160, 161, 162
Renting of Buildings and Equipment.....	159, 161, 162
Repair of Buildings.....	143, 144, 149, 150
Rochester Shop School:	
Cost.....	93
Courses Offered.....	91
Restrictions on Registration.....	92
State Requirements and Aid.....	92
When and Where Organized.....	91
Rochester Teachers' Association, Contributions to.....	161, 162

S

	Page
Sabbatical Year Privilege for Teachers .....	37, 38
Salary Schedules .....	11, 30, 31, 35, 43, 124, 126
School Buildings, Elementary:	
Class Room Size .....	174
Construction of Wardrobes, Gymnasiums and Rooms used for other than Instruction .....	176
Corridors, Stairways, Floors, Roofing, etc. ....	178-181
General Building Plan .....	175
General Construction .....	174
General Plan of Buildings .....	174
Immediate Elementary School Building Program .....	181
Location of Buildings .....	173
Standards and Arrangements .....	176
Structure .....	175
Types of Buildings Erected .....	174
School Plant (see Maintenance and Operation).	
Secondary Education:	
Distribution of Costs by Service .....	85
Distribution of Costs by Subjects .....	86-88
Factors Responsible for Increased Expenditures .....	86
Gradual Expansion of the Program of Studies, The .....	82
Growth in High School Enrollment in Rochester .....	77
Growth in High School Enrollment in the United States .....	76
Guiding Principles .....	84
Historical Facts Concerning the High School .....	73-75
Question of Electives, The .....	83
Senior High School Unit of School Organization .....	1
Secretary of Board of Education, Appointment and Duties of .....	116, 120, 121, 122, 124
Senior High School Buildings, Construction of .....	188
Sewing, Instruction in .....	26, 27, 28
Shelter, Special Classes at the .....	57, 58
Sight Saving Classes, Special .....	57, 58
Sites, Building .....	164-169, 173
Size of Standard Class Room .....	45
Social Civics, Instruction in	
Aims and Costs of .....	17
Summary of Costs for .....	21
Time Schedule for .....	14
Special Classes:	
Convalescent Children, Classes for .....	55, 58
Cost of Maintaining Special Education Department .....	132, 135, 136, 137
Foreign Pupils, Classes for .....	50, 58
Lip Reading Classes .....	54, 58
Mentally Retarded, Classes for the .....	48, 58
Mentally Superior, Classes for the .....	47, 58
Reasons for Establishment of .....	46
Shelter, Classes at the .....	57, 58
Sight Saving Classes .....	53, 58
Speech Correction Classes .....	55, 58
Those Having Physical Defects, Classes for .....	50-56, 58
Truants, Classes for .....	57, 58
Ungraded, Classes for the .....	49, 58
Special Education Department (see also Special Schools and Special Classes) .....	132, 135, 136, 137, 139
Special Schools:	
Monroe County Tuberculosis Sanatorium School .....	63, 64
Open Air School for Anæmic Children .....	63, 64
Orphan Asylums .....	63, 64
Pre-Vocational School for Boys .....	59, 64
Special Subject Teachers .....	23-28, 31, 32, 39-43
Special Training for Teachers, Cost of .....	36-39
Speech Correction, Special Classes for .....	55, 58
State, Amount Paid by .....	45
State Requirements:	
Americanization Work .....	113
Elementary Grades .....	27
Kindergarten .....	12
Rochester Shop School .....	92
Salaries .....	43
Salary Schedule in Senior High Schools .....	86
Subjects of Instruction .....	43
Summer Schools .....	67
Teachers .....	25, 26, 27, 28, 43

## INDEX

197

	Page
Summer School Study, Teachers' .....	37, 38
Summer School, The	
Aims .....	65
Distribution of Costs .....	67
Early Development .....	65
Factors Responsible for Increased Expenditure .....	67
Superintendent of Buildings .....	117, 120, 121, 124
Superintendent of Schools .....	116, 120, 121, 122, 124
Supervising Assistants, Salary Schedule of .....	44
Supervising Teacher .....	126, 129
Supervisors .....	24, 126

## T

Taxes .....	160, 161, 162
Teacher Employment and Certification, Director of .....	119, 120, 121, 122
Teachers:	
Average Salary Paid Regular Class Room Teacher .....	139
Cost of Providing Special Training for .....	33
Kindergarten Teachers .....	11, 12, 31
Regular and Special Subject Teachers .....	24, 27, 31
Salary Schedules for .....	43
State Requirements .....	43
Supervisors .....	24
Training Requirements for .....	11, 43
Visiting Teachers .....	24
Teaching and Other Equipment, Maintenance of .....	144, 149, 150
Telephones, Cost of .....	148, 149, 150
Time Schedule for the Elementary Grades .....	14
Transportation of Pupils .....	153, 156, 157
Truants, Special Classes for .....	57, 58

## U

Ungraded, Special Classes for the .....	49, 58
Upkeep of Grounds, Cost of .....	141, 144, 149, 150

## V

Visiting Day Privileges, Teachers' .....	38
Visiting Teachers, Department of .....	24, 30, 31, 32, 44, 134, 135, 136, 137

## W

Wardrobes, Construction of .....	176
Water, Cost of .....	147, 148, 149, 150
Work Permits, Department of .....	119, 120, 121, 122, 124
Writing (see Penmanship).	

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