

DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

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THE PUBLIC SCHOOL SYSTEM
OF
SAN FRANCISCO, CALIFORNIA

A REPORT TO THE SAN FRANCISCO BOARD
OF EDUCATION OF A SURVEY MADE UNDER
THE DIRECTION OF THE UNITED STATES
COMMISSIONER OF EDUCATION



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NOTE.

It has not been possible personally to verify absolutely all statements of fact in this report. Copies of the report, however, were submitted to the following-named persons with the request that all such errors be pointed out in order that they might be corrected before the report went to press.

Mr. George W. Gallagher, president San Francisco Board of Education.

Mr. Alfred Roncovieri, superintendent of public schools.

Mrs. Jesse W. Steinhart, chairman San Francisco school survey committee.

Mr. Robert Newton Lynch, vice president and manager San Francisco Chamber of Commerce.

The suggestions resulting from this request have all been given careful consideration.

P. P. CLAXTON,
Commissioner.

THE PUBLIC SCHOOL SYSTEM OF SAN FRANCISCO, CALIFORNIA.

INTRODUCTION.

During the month of December, 1914, representatives of the San Francisco Chamber of Commerce conferred with the Commissioner of Education in Washington concerning the possibility of a survey of the San Francisco public school system under the direction of the Bureau of Education. At that time the Commissioner of Education drafted a statement of the conditions under which the Bureau of Education would undertake a survey.

On April 3, 1915, a representative of the commissioner met with the board of education in San Francisco and presented a copy of this statement of conditions, and discussed the subject of the survey informally with the board. The conditions stated were as follows:

1. An official invitation received by the Bureau of Education from the San Francisco Board of Education.
2. Assurance of cooperation of the California State Department of Public Instruction.
3. The survey to be under the direction of the Bureau of Education.
4. The survey to consist of a sympathetic inquiry into conditions as they are, with commendation of what is good, and suggestions for improvement and further development.
5. Report of the survey to be submitted to the San Francisco Board of Education, and published (as submitted) by the Bureau of Education.
6. The Bureau of Education to furnish the services of three specialists (later increased to five) and to publish the final report.
7. The San Francisco Board of Education to furnish—
 - (a) Traveling and subsistence expenses of three specialists (later increased to five) representing the Bureau of Education.
 - (b) Traveling and subsistence expenses, and compensation, of four members (later increased to seven by mutual agreement) of the survey commission, to be nominated by the Bureau of Education from a list to be approved by the San Francisco Board of Education.
 - (c) Necessary stenographic and clerical assistance.
 - (d) Necessary office supplies and materials.

The necessary expense of the survey was estimated by the commissioner at \$8,500.

Under date of July 14, 1915, the secretary of the San Francisco Board of Education notified the commissioner that at a meeting of the board on July 13 the following resolution was adopted:

Whereas the San Francisco Chamber of Commerce has expressed a wish to make a survey of the school system of San Francisco as a part of its plan to obtain accurate data upon all questions affecting the commercial life of San Francisco; and has asked that access to the departments under the charge of this board be granted; and has stated that the purpose of the chamber of commerce is to secure outside, impartial experts for this work, for whose character and ability said chamber of commerce undertakes to vouch: Therefore be it

Resolved, That the Board of Education hereby express its willingness that a survey of the school department be made by the United States Bureau of Education, provided that no person be appointed to conduct any part of the survey or make any investigation of the department until approved by the Board of Education, and provided, further, that this involve no expense to the Board of Education.

- Under date of October 8 the secretary of the board of education notified the Commissioner of Education that at a meeting of the board held October 5 it was resolved that the Commissioner of Education be invited to conduct a survey of the school department of San Francisco.

On November 20 Mr. Lynch wired the commissioner that \$6,000 of the needed \$8,500 had been raised and that he considered the remainder of the amount assured. On December 28 Mr. Lynch reported that the committee had raised within \$600 or \$700 of the entire amount and that the committee would be responsible for the remainder.

On January 3, 1916, the commissioner wired acceptance of the financial arrangement and advised that the survey work would begin early in February.

THE SURVEY COMMISSION.

On January 13 the list of names of the persons proposed for the survey commission was sent to the San Francisco Board of Education and to the chamber of commerce. One or two changes were made necessary later, and finally made up the commission included the following members:

From the Bureau of Education:

- Mrs. HENRIETTA W. CALVIN—home economics.
- FLETCHER B. DRESSLAR—school architecture, sanitation, buildings and equipment.¹
- ARTHUR W. DUNN—civic education.
- JOHN L. RANDALL—school and home gardening.
- FREDERICK E. FARRINGTON—education for immigrants.
- WILLIAM T. BAWDEN—manual training, vocational education, director of field work for the survey commission.

¹ Special agent of the Bureau of Education, not on regular salary; hence received compensation for services on survey.

From outside the Bureau of Education:

WILLIAM M. DAVIDSON—organization, administration, financial and fiscal problems—superintendent of public schools, Pittsburgh, Pa.¹

CHARLES A. McMURRY—elementary schools, courses of study, methods of teaching—professor of elementary education, Peabody College for Teachers, Nashville, Tenn.

JOHN W. WITNERS—elementary schools, courses of study, methods of teaching—president of Harris Teachers College, St. Louis, later elected superintendent of public schools, St. Louis, Mo.

J. STANLEY BROWN—secondary education—superintendent Joliet Township High School, Joliet, Ill.

HENRY TURNER BAILEY—fine arts—editor of School Arts Magazine, Boston, Mass., later appointed dean of the Cleveland School of Art, Cleveland, Ohio.

WILL EARHART—music—director of music, public schools, Pittsburgh, Pa.

On January 18 President George E. Gallagher wired the commissioner that the names submitted were approved by the board of education.

Eight members of the commission spent practically the entire month of February in San Francisco, while the remaining members visited the schools in August after the opening of the new school year. Twelve members of the commission spent a total of 347 days in San Francisco, an average of approximately 25 to 30 days each.

Every elementary school, every high school, and 16 evening schools were visited by one or more members of the commission. The number of visits to schools aggregated 443; visits to classrooms, 1,818; conferences with groups of teachers and principals, 139. The details of visits are set forth in the following table:

Report of visits made to schools by 12 members of the San Francisco survey commission.

	Number of schools visited.			
	Elementary.	High.	Evening.	Total.
By 1 member.....	10		6	22
By 2 members.....	19		6	25
By 3 members.....	13		2	17
By 4 members.....	10			10
By 5 members.....	10		2	12
By 6 members.....	7	1		8
By 7 members.....	5	1		6
By 8 members.....	1	2		3
By 9 members.....	1	1		2
By 10 members.....				
By 11 members.....	1			1
Total.....	85	5	10	100
Number of members of commission reporting.....				12
Number of schools visited.....				100
Number of visits to schools.....				443
Number of visits to classes.....				1,818
Number of conferences held with groups of teachers and principals.....				139

¹ Assisted by August Hiller—finance—chief accountant and statistician, public schools, Pittsburgh, Pa.

The commission wishes to acknowledge its obligation to school officers, teachers, various civic organizations, and individual citizens of San Francisco for their courtesy, kindly consideration, and hearty cooperation. The work of the commission was facilitated in every possible way by the members of the board of education, by the superintendent of schools and his deputies, by supervisors, principals, teachers, and other school employes, by the mayor and other city officials, and by many private citizens whose deep interest in the improvement of the public schools was noted on every hand.

The local school survey committee, under whose auspices the survey was conducted, and its individual members rendered much valuable assistance.

Chapter I.

THE CITY OF SAN FRANCISCO.

As the largest city of the region west of the Missouri River, and the principal seaport on the west coast of North America, San Francisco has the distinction of being the metropolis of the Pacific Coast of the United States. Situated near the center of the coast of California, San Francisco occupies the northern end of a peninsula which is approximately 30 miles long, surrounded on the west by the Pacific Ocean, on the east by the Bay of San Francisco, and on the north by the Golden Gate.

The first settlement in this locality dates from October 9, 1776, when two Franciscan monks, Palou and Cambon, founded an Indian mission, which they called San Francisco de Asisi. After the Mexicans secured control of California, 1822, a small village called Dolores grew up about the mission. In 1836 the village of Yerba Buena was founded on the water front near by, and from this the modern city developed.

In 1846 California came into the possession of the United States, and in the following year the village of Yerba Buena changed its name to San Francisco. At that time its population was about 450. The discovery of gold in 1848 brought a large influx of population into California, and by September, 1849, San Francisco is said to have had a population of 10,000.

The city has been visited by a number of disastrous conflagrations, five of which during the years 1849-1851 destroyed property the value of which is estimated at \$16,000,000. An earthquake did some damage in October, 1868. In April, 1906, an earthquake shock wrecked a number of buildings, and by rupturing gas and water mains prevented effective measures for dealing with the fire which ensued. When the fire was finally subdued, it was found that about a third of the city, including most of the business section, was in ruins, with a loss of life reported at 452 and a property loss of more than \$200,000,000. It is estimated that over 250,000 people were left homeless, and most of these were wholly ruined financially.

Notwithstanding these reverses, San Francisco, with splendid spirit and recuperative power, has each time set resolutely about the task of rebuilding. The area burned over in 1906 has been almost entirely rebuilt with substantial modern buildings.

The land area of San Francisco is 43 square miles, the territory of the city and county being coextensive. In laying out the streets no attempt appears to have been made to plan easy grades, and as a consequence some of the streets, straight up the sides of steep hills, are practically impassable for all kinds of traffic. The hills rise abruptly from sea level to several hundred feet in height. South-west of the main portion of the city, Twin Peaks rise to over 900 feet above sea level.

Several important portions of the site of San Francisco, including the portion where the Ferry Building now stands and part of the Panama-Pacific Exposition grounds, have been reclaimed from the bay.

POPULATION.

From a population of 10,000 in 1849, San Francisco grew to 416,912 in 1910, a period of 61 years. The successive additions and per cent increases are shown in Table 1.

TABLE 1.—Population of San Francisco, 1849-1915.

Census year.	Popu- lation.	Increase over pre- ceding census.	
		Number	Per cent.
1849.....	10,000		
1854.....	34,776	24,776	247.7
1859.....	56,802	22,026	63.3
1864.....	149,474	92,672	163.1
1870.....	231,059	81,585	54.5
1880.....	248,967	17,908	7.8
1890.....	312,782	63,815	24.0
1900.....	416,912	104,130	25.0
1915.....	457,253	40,341	9.6

¹ Estimated. ² State census; the returns for the Federal census of 1850 were destroyed by fire.

The population in 1910, by assembly districts, is shown in Table 2. See also map, figure 16, page 30.

TABLE 2.—Population of San Francisco, by assembly districts, 1910.¹

District number.	Population.	District number.	Population.
28.....	11,373	38.....	27,925
29.....	5,537	39.....	51,564
30.....	7,558	40.....	23,075
31.....	18,787	41.....	25,372
32.....	31,879	42.....	8,810
33.....	49,688	43.....	9,379
34.....	36,970	44.....	21,307
35.....	22,388	45.....	22,206
36.....	12,844		
37.....	35,250	Total.....	416,912

¹ See map, p. 30.

Of eight cities in California having in 1910 a population of 25,000 or over, San Francisco shows the lowest rate of increase for the last census period, 1900-1910. The city's most rapid growth was made during the decades from 1860 to 1880, its population increasing more than fourfold during that period, while during the 30 years from 1880 to 1910 its population increased only 78.1 per cent. The lowest rate of decennial increase was 14.6 per cent, for the decade 1890-1900. The next lowest rate, 21.6 per cent, was for the last decade reported, 1900-1910. The disaster which befell the city in 1906 undoubtedly retarded its development to an extent from which it has hardly yet fully recovered.

With a land area of 26,632 acres, the population per acre in 1915 was estimated at 17. The basis for comparing San Francisco with the other cities in the same population class is presented in Table 3, from which it appears that it is fourth in the list of these cities in density of population. San Francisco has about two-thirds as many inhabitants per acre as Newark and Milwaukee, but nearly six times as many as New Orleans, and nearly seven times as many as Los Angeles. Differences in average density in these cities is due largely to the proportion of undeveloped territory within their corporate limits, which is comparatively large in San Francisco.

TABLE 3.—Density of population, 9 cities having a population of 300,000 to 500,000, 1915.¹

City.	Rank in density of population	Number of inhabitants per acre.	Area of city proper in acres.	Estimated population 1915.
Newark, N. J.	1	26.2	11,858.0	309,106
Milwaukee, Wis.	2	25.8	16,213.8	419,509
Buffalo, N. Y.	3	18.3	24,801	457,723
SAN FRANCISCO.	4	17	26,632	452,753
Minneapolis, Minn.	5	10.7	32,969	343,468
Washington, D. C.	6	9.3	38,408.4	356,028
Cincinnati, Ohio.	7	8.9	45,338.9	402,173
Seattle, Wash.	8	8.4	37,481	311,029
New Orleans, La.	9	2.9	125,410	361,221
Los Angeles, Cal.	10	2.5	187,461	452,140

¹ Financial statistics of cities having a population of over 30,000 in 1915; Bureau of the Census.

The total number of dwellings in San Francisco in 1910 was 65,025, and the total number of families 86,414, there being 132.9 families to each 100 dwellings. The corresponding figure for the State was 109.8 families to each 100 dwellings. The average number of persons per dwelling was—San Francisco, 6.4; California, 4.6. The average number of persons per family was—San Francisco, 4.8; California, 4.2. The facts concerning housing are still further analyzed in Chapter XVI.

For a discussion of the distribution of the population according to occupations, see Chapter XIV.

RACIAL COMPOSITION OF POPULATION.

In 1910 nearly 72 per cent of the population of San Francisco were foreign-born or of immediate foreign descent, as may be noted in Table 4 and Figure 1. The largest elements among the foreign-born population are the Germans, Irish, Italians, Scandinavians, and the English-Scotch-Welsh group. The Chinese numbered 10,582 and

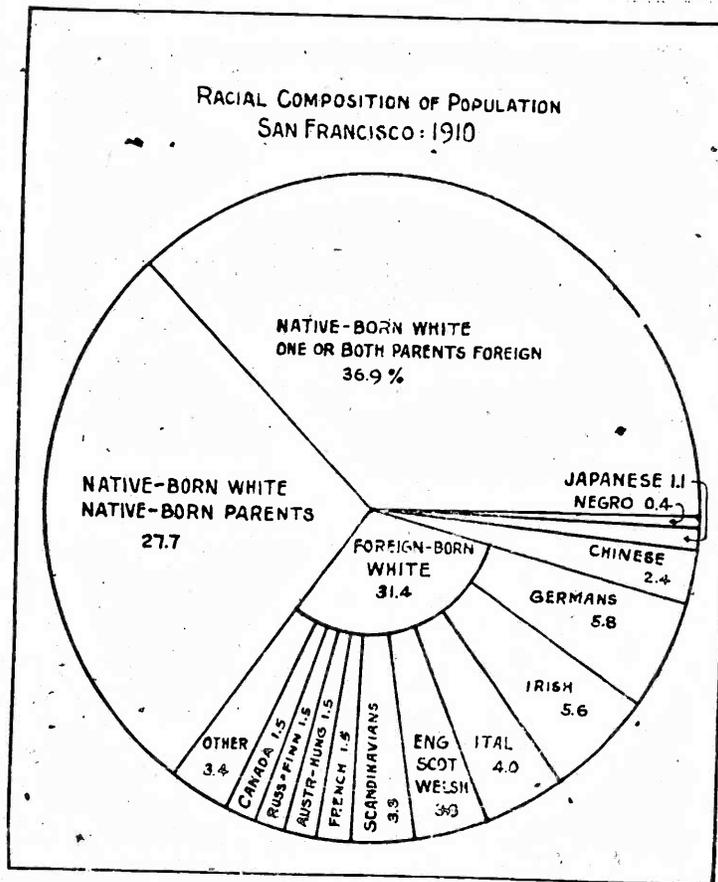


FIGURE 1.—San Francisco is a cosmopolitan city. Eleven different racial groups of foreigners are represented by numbers sufficient to constitute from 1.1 to 5.8 per cent of the total population. Only about one-fourth of the population is native-born of native white parents.

the Japanese 4,674, though, as noted in Chapter XV of this report, since 1910 the Chinese have decreased in numbers and the Japanese have materially increased.

San Francisco is, therefore, distinctively a cosmopolitan city. Eleven different racial groups of foreign-born are represented by numbers sufficient to constitute from 1.1 to 5.8 per cent of the total

population. Only about one-fourth of the population is native-born of native white parents.

The presence within the city of considerable numbers of persons of foreign descent, grouped for the most part in settlements more or less clearly differentiated by language or racial characteristics, inevitably creates special difficulties for the schools. These problems are fully discussed elsewhere.

TABLE 4.—Distribution of population of San Francisco by country of birth, 1910.

Country of birth.	Number.	Per cent.
Native white with native parents.....	115,350	27.7
Native white with one or both parents foreign-born.....	151,781	36.9
Foreign-born white.....	140,874	31.4
Germany.....	24,137	5.8
Ireland.....	21,151	5.6
Italy.....	16,918	4.0
England, Scotland, Wales.....	13,884	3.3
Scandinavia.....	13,856	3.3
Russia (Finland).....	6,486	1.6
France.....	6,241	1.5
Canada.....	6,161	1.5
Austria-Hungary.....	5,888	1.4
Other.....	14,149	3.4
Australia.....	1,347	
Greece.....	2,274	
Holland.....	500	
Mexico.....	1,763	
Portugal.....	570	
Spain.....	1,170	
Switzerland.....	2,587	
Other.....	3,938	
Negro.....	1,642	.4
China.....	10,582	2.4
Japan and other.....	4,674	1.1
Total.....	416,012	100

TABLE 5.—Distribution of population by age-period—San Francisco compared with the nine other cities having a population of 300,000 to 500,000 in 1910.

Age-period.	Population at each age-period.										
	Buffalo.	Cincinnati.	Detroit.	Los Angeles.	Milwaukee.	Minneapolis.	New Orleans.	Newark.	Washington.	Total for 9 cities.	San Francisco.
Under 5 years.....	32,257	29,172	48,715	22,817	37,814	25,797	32,047	38,421	26,069	301,729	29,178
5 to 14 years.....	77,449	57,825	77,658	41,517	69,011	44,561	64,076	61,397	49,961	544,485	49,739
15 to 19 years.....	32,047	35,283	41,192	25,690	38,520	28,312	31,843	32,807	24,112	307,128	32,465
20 to 24 years.....	45,057	38,988	55,839	32,015	42,311	39,073	35,500	35,860	34,424	359,356	46,190
25 to 34 years.....	136,731	124,568	158,858	121,775	118,813	100,615	110,408	114,750	119,378	1,111,020	170,442
35 to 44 years.....	65,476	61,103	65,166	69,639	51,718	45,059	48,291	49,339	54,275	501,066	68,642
45 to 54 years and over and age unknown.	14,696	16,670	16,138	15,829	13,380	11,971	14,860	11,878	18,252	133,664	19,066
Total population.....	423,715	363,591	465,766	319,196	373,857	301,408	339,075	347,460	331,069	3,265,148	416,912
Total 5 to 19 years.....	119,498	91,110	121,050	67,123	107,561	72,873	97,919	97,206	75,073	862,413	82,166
Total 20 to 64 years.....	247,244	226,619	279,861	213,420	215,082	160,767	194,239	196,964	208,075	1,975,342	235,578

TABLE 6.—Per cent distribution of population by age periods—San Francisco compared with the United States as a whole, and with cities having a population of 300,000 to 500,000 in 1910. (See Figures 2 and 3.)

Age periods.	Per cent of total population at each age period.											
	Buf- falo.	(In- cin- niti.	De- troit.	Los- An- geles.	Mil- wau- kee.	Minne- apolis.	New Or- leans.	New- ark.	Wash- ing- ton.	Total for 9 cities.	United States.	San Fran- cisco.
Under 5 years of age....	10	8	10.4	7.2	10.1	4.5	9.1	11.1	8	9.3	11.6	7
5 to 14 years.....	18.3	15.3	16.7	13	14.5	14.8	14.9	18.5	15.1	16.7	20.5	11.9
15 to 19 years.....	9.9	9.7	9.3	8	10.3	9.4	10	9.4	8.5	9.4	9.9	7.8
20 to 24 years.....	10.6	10.7	12	10.1	11.4	13	10.5	10.3	10.4	11	9.8	11.2
25 to 44 years.....	32.2	34.3	31.1	34.2	31.9	35.4	32.6	33	36.1	34	29.1	41
45 to 64 years.....	15.5	17.4	14	18.7	14.4	14.9	14.2	14.2	16.1	15.5	11.6	16.4
65 years and over, and age unknown.....	3.5	4.0	3.5	4.9	3.5	4	4.4	3.5	5.5	4.1	4.5	4.7
Total.....	100	100	100	100	100	100	100	100	100	100	100	100
Total 5 to 19 years.....	28.2	25	26	21	28.8	24.2	28.9	27.9	23.6	26.1	30.4	19.7
Total 20 to 64 years.....	58.3	62.4	60.1	60.9	57.6	63.3	57.3	57.5	62.9	60.5	53.5	68.6

AGE DISTRIBUTION OF POPULATION.

According to the census figures for 1910, Tables 5 and 6, and Figure 2, the age distribution of the population of San Francisco shows marked peculiarities when compared with that of the United States as a whole. San Francisco has very much less than her share of children under 20 years of age, only a little more than half the average proportion of children 5 to 14 years of age, and much more than her share of adults of the productive ages of 25 to 44 years (41 per cent, as against 29.1).

Comparing San Francisco in this respect with the nine other cities of the same population class, Table 6, and Figure 3, similar discrepancies of distribution appear, though they are slightly less pronounced.

As shown in Table 6, in the nine cities the population from 5 to 19 years of age equals 43.1 per cent of the population from 20 to 64 years; in San Francisco, 28.7 per cent. In the nine cities, therefore, the ratio of population of school age to population of 20 to 64 years of age is 50.1 per cent greater than in San Francisco.

The importance of these facts for public education is manifest. With a much smaller proportion of children of school age than the average city and with a much larger proportion of productive adult population, the financial burden of supporting a public-school system rests much more lightly upon the people of San Francisco than elsewhere.

AGE DISTRIBUTION OF TOTAL POPULATION: 1910
SAN FRANCISCO COMPARED WITH U.S.

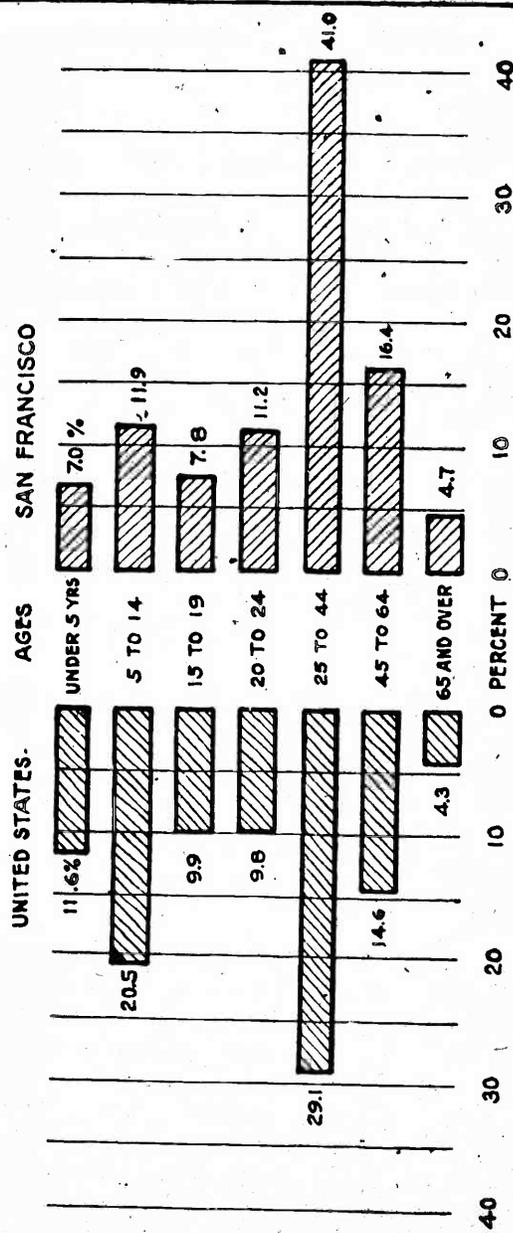


FIGURE 2.—Comparing the age distribution of the population of San Francisco with that of the United States, striking differences are observed. San Francisco has very much less than her share of children under 15 years of age—12.9 per cent, as against 32.1 per cent in the United States—and very much more than her share of persons 25 to 44 years of age—41.0 per cent, as against 29.1 per cent.

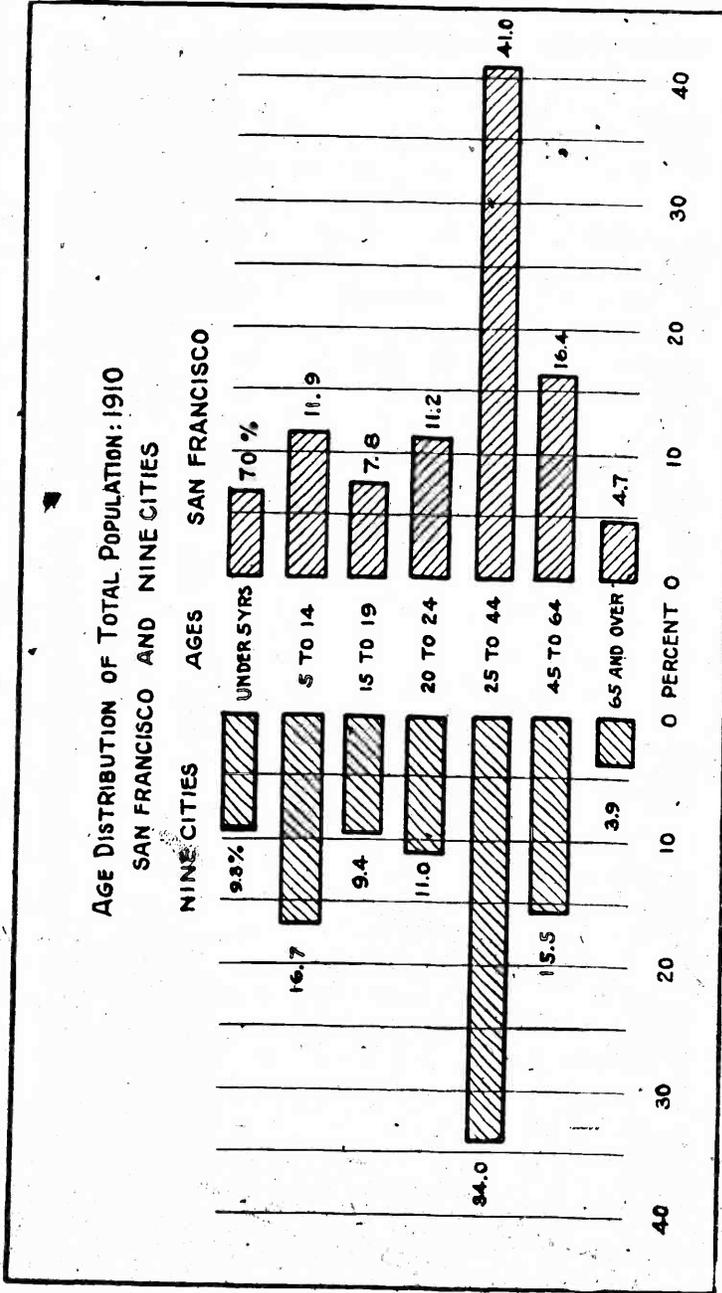


FIGURE 3.—Comparing the age distribution of the population of San Francisco with that of the total population of the nine other cities of the same population class (300,000 to 500,000 in 1910), notable differences are observed. San Francisco has less than her share of children under 15 years of age—18.9 per cent, as against 16.7 per cent in the nine cities—and more than her share of persons 25 to 44 years of age—41 per cent, as against 34 per cent. The excess of adult population of productive age should make relatively light the burden of providing educational advantages for the children and youth.

ILLITERACY.

Table 7 shows the figures for the per cent of illiterates in the population 10 years of age and over, comparing San Francisco in this respect with the United States as a whole and with the nine other cities in the same population class in 1910.

TABLE 7.—Per cent of illiterates in the population 10 years of age and over; 10 cities having a population of 300,000 to 500,000 in 1910.

Cities.	Per cent of illiterates.		
	Foreign-born white.	Native white.	
		Native parentage.	Foreign and mixed parentage.
1. SAN FRANCISCO.....	4.7	0.2	0.2
2. Minneapolis.....	6.8	.1	.2
3. Los Angeles.....	7	.2	.4
4. Washington.....	8.2	.6	.4
5. Milwaukee.....	9.5	.1	.3
6. Cincinnati.....	9.6	1	.5
7. Buffalo.....	10.3	.2	.5
8. Detroit.....	11.7	.2	.5
9. New Orleans.....	12.9	1	1.2
10. Newark, N. J.....	14.2	.3	.6
United States.....	12.7	3.7	1.1

In respect to illiterates in the foreign-born white population, San Francisco had a smaller proportion than any other city in the list, 4.7 per cent, which is less than one-third of the per cent reported for the tenth city, while in the United States as a whole the per cent was 12.7.

In respect to illiterates in the native white population of native parentage, San Francisco had 0.2 per cent. Only 2 of the 10 cities reported a smaller per cent, while it was 3.7 per cent for the United States.

In respect to illiterates in the native white population of foreign or mixed parentage, San Francisco had 0.2 per cent. No one of the 10 cities reported a smaller per cent, while for the United States it was 1.1.

RESOURCES AVAILABLE FOR EDUCATIONAL PURPOSES AND THEIR UTILIZATION.

In the following pages certain tables are presented, showing comparative figures for San Francisco and the other nine cities in the same population class, with respect to resources available for educational purposes, and the extent to which these resources are utilized in certain particulars. The tables are based on data given in the

reports of the Census Bureau and the Commissioner of Education Table 8 presents the facts from which the six tables following are derived.

TABLE 8.—Some facts concerning 10 cities having a population of 300,000 to 500,000 in 1915.

Cities.	Estimated population, 1915. ¹	Estimated true value real and personal property, 1915. ²	Children 5 to 19 years of age, 1915. ³	Males 21 years of age and over, 1915. ⁴	Total revenue receipts for public schools, 1915-16. ⁵
Buffalo.....	457,723	\$598,350,000	129,089	138,417	\$3,361,763
SAN FRANCISCO.....	452,255	1,083,788,878	89,163	190,867	3,064,459
Los Angeles.....	452,140	959,246,080	95,081	162,742	5,283,765
Milwaukee.....	419,589	583,931,364	130,718	126,942	2,462,368
Chicago.....	402,175	598,025,430	109,779	126,008	2,363,461
Newark.....	389,106	403,199,704	108,854	115,694	3,183,665
New Orleans.....	364,221	326,889,413	104,314	103,332	1,118,356
Washington.....	356,008	616,767,991	83,659	111,383	3,334,480
Minneapolis.....	313,406	700,546,461	83,012	119,969	2,366,330
Seattle.....	313,009	487,943,753	63,068	134,165	2,484,039
Average.....	394,673	635,073,550	97,806	132,968	2,904,408

¹ Financial statistics of cities, 1915, Bureau of the Census.
² Based on figures of assessed valuation and per cent basis of assessment reported, in financial statistics of cities, 1915, Bureau of the Census.
³ Estimate for 1915 based on percentage-distribution figures for 1910.
⁴ Exclusive of loans, bond sales, unpaid warrants, sales of property, proceeds of insurance adjustments, and other nonrevenue receipts.
⁵ Includes \$47,781,000 of property "subject to special property taxes"; basis of assessment not reported.
⁶ Includes \$16,565,000 of property "subject to special property taxes"; basis of assessment not reported.

TABLE 9.—Value of property for each adult male in 10 cities, 1915.

1. Los Angeles.....	\$5,839.09
2. Minneapolis.....	5,838.18
3. SAN FRANCISCO.....	5,678.24
4. Washington.....	5,527.43
5. Cincinnati.....	4,753.07
6. Milwaukee.....	4,600.00
7. Buffalo.....	4,481.79
8. Seattle.....	3,633.08
9. Newark.....	3,487.76
10. New Orleans.....	3,164.45
Average.....	4,776.12

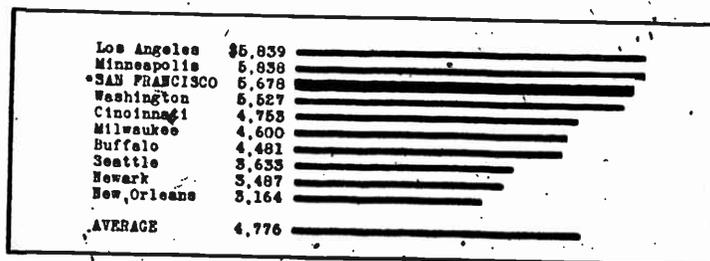


FIGURE 4.—Value of property for each adult male.

As shown in Table 9 and Figure 4, San Francisco ranks third in the list of 10 cities in value of property for each adult male. The amount in San Francisco is 79.5 per cent greater than that in the lowest city in the list, and 18.8 per cent greater than the average for the 10 cities.

TABLE 10.—Value of property for each child 5 to 19 years of age in 10 cities, 1915.

1. SAN FRANCISCO.....	\$12,155.14
2. Los Angeles.....	9,994.28
3. Minneapolis.....	8,436.29
4. Seattle.....	7,736.79
5. Washington.....	7,346.06
6. Cincinnati.....	6,942.90
7. Milwaukee.....	4,837.16
8. Buffalo.....	4,635.22
9. Newark.....	3,704.04
10. New Orleans.....	3,134.66
Average.....	6,792.26

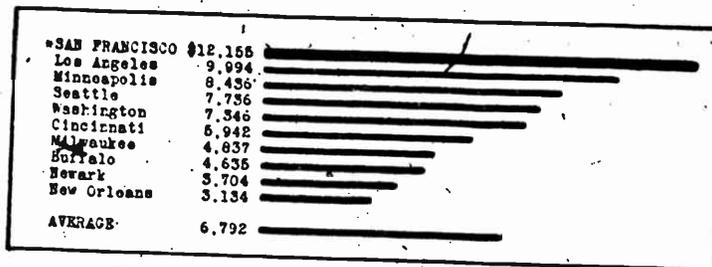


FIGURE 5.—Value of property for each child 5 to 19 years of age.

Comparing the 10 cities in respect to amount of wealth for each child of school age, as shown in Table 10 and Figure 5, San Francisco heads the list with \$12,155.14, which is nearly four times the amount reported for the lowest city in the list, and nearly twice the average for the 10 cities.

TABLE 11.—Value of property, by States, for each child 5 to 18 years of age, 1913.¹

1. CALIFORNIA.....	\$15,500
2. Washington.....	10,400
3. New York.....	9,900
4. Minnesota.....	8,900
5. New Jersey.....	8,100
6. Ohio.....	7,300
7. Wisconsin.....	6,400
8. Louisiana.....	3,800
Average.....	8,787

¹ The States included in this list are those in which the ten cities in the population class of San Francisco are located.

Since a portion of the support of city school systems is derived from State taxation, a comparison of the resources of the States in which the 9 cities are located is of value (omitting the District of Columbia). As shown in Table 11 and Figure 6, California ranks first among these

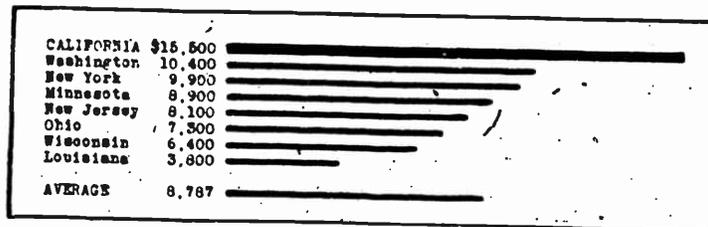


FIGURE 6.—Value of property, by States, for each child 5 to 18 years of age, 1913.

8 States in respect to value of property for each child 5 to 18 years of age. The amount in California is 59.2 per cent greater than the average for the next 3 States, \$9,733, and 76.4 per cent greater than the average for the 8 States.

TABLE 12.—Number of males 21 years of age and over, for each 100 children 5 to 19 years of age in 10 cities, 1915.

1. SAN FRANCISCO	214.1
2. Seattle	212.8
3. Los Angeles	171.2
4. Minneapolis	144.5
5. Washington	132.9
6. Cincinnati	125.0
7. Buffalo	107.2
8. Newark	106.2
9. Milwaukee	105.2
10. New Orleans	99.1
Average	141.8

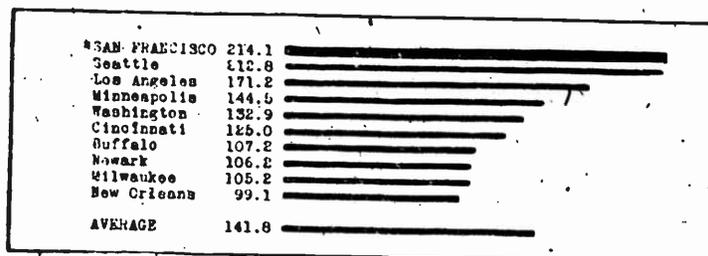


FIGURE 7.—Number of adult males for each 100 children 5 to 19 years of age.

As shown in Table 12 and Figure 7, San Francisco ranks first of the 10 cities in number of adult males, for each 100 children of school age. The number in San Francisco is 50.9 per cent greater than the average for the 10 cities, and is more than twice the number reported for the lowest city.

SUMMARY.

San Francisco is a young and vigorous city. In less than three-quarters of a century, within the lifetime of many men and women who now live within its borders, it has from a small struggling village become one of the great and important cities of the world. Its location at one of the doors of the continent through which must pass much of the life and the business of the continent affects inevitably its character, its growth, and its development. Its cosmopolitan population makes possible for it a rich and varied culture. Its open climate and its geographical environment contribute to freedom of outdoor life, to love of pleasure, and to the development of artistic temperament.

Few other communities in the world are so able to maintain their schools and to supply them abundantly with all buildings, equipment, and teachers that may be needed for their highest efficiency, at whatever cost may be necessary.

California is, in proportion to the number of children of school age, one of the richest States in the world, probably surpassed in this respect by only one, and the estimated value of property in San Francisco as compared with the number of children of school age is much larger than in any other city of its class in the United States. It has more than twice the average in the other nine cities having a population between three and five hundred thousand.

The proportion of men and women of producing age to children of school age is very large in San Francisco. The proportion of men of producing age to children of school age is more than twice as large as the average proportion in the four cities of Buffalo, Newark, Milwaukee, and New Orleans, and is 60 per cent larger than the other nine cities of its class. Neither the city, nor the State in which it is located and of which it forms a part, is burdened with debt, and both city and State have considerable vested school funds and school lands of increasing value.

Like other Western States and cities, California and San Francisco have adopted many advanced principles and methods in their political government and civic life which demand for their proper functioning universal intelligence and virtue of a very high grade, which can be had only through universal education of an equally high grade, just as the wealth and material prosperity of the State and city require broad and sound culture and high idealism as protection against the corruption of material wealth and death in the din and dust of trade. Therefore, the people of San Francisco and their representatives on the board of education and city council and in State legislature may and should, in planning for the future development of the public-school system of the city, take counsel of perfection. This city has the ability—if it may only have the vision and wisdom—to make its schools models for the country and for the world.

Chapter II.

A STATISTICAL STUDY OF THE SCHOOL SYSTEM.

SCHOOL ATTENDANCE.

In 1910, of all children 6 to 9 years of age, 80 per cent were reported as having attended some kind of school at some time during the school year just ending; of those 10 to 14 years of age, 92 per cent had attended; 15 to 17 years, 49.3 per cent; 18 to 20 years, 11.8 per cent.

Before presenting the figures collected by the survey commission, certain comparisons based on school reports from the 10 cities are of interest. The figures for total enrollment in the public schools for the school year 1915-16 are given in Table 13.

TABLE 13.—Comparative enrollment in public elementary and high schools of 10 cities, 1915-16.¹

City.	Total enrollment.		Estimated population in 1915. ²
	Elementary schools and kinder-gartens.	High schools.	
Los Angeles.....	68,550	11,710	452,140
Newark.....	66,955	5,218	389,108
Buffalo.....	60,817	5,879	437,721
Milwaukee.....	52,674	5,828	419,389
Washington.....	52,211	7,215	256,028
SAN FRANCISCO.....	51,220	4,661	452,255
Minneapolis.....	45,787	8,119	341,448
New Orleans.....	44,617	2,595	361,721
Cincinnati.....	41,215	4,020	402,175
Seattle.....	30,749	6,421	314,029
Average.....	51,643	6,309	394,673

¹ From reports to the Bureau of Education.

² From reports of the Census Bureau.

From the data contained in Table 13 are derived the comparisons presented in the following tables:

TABLE 14.—Number of elementary school pupils (1915-16) per 1,000 population (1915) in 10 cities.

1. Newark.....	172.1
2. Los Angeles.....	151.6
3. Washington.....	146.9
4. Minneapolis.....	133.3
5. Buffalo.....	131.8
6. Milwaukee.....	125.5
7. New Orleans.....	123.6
8. SAN FRANCISCO.....	113.3
9. Cincinnati.....	107.5
10. Seattle.....	98.2
Average.....	130.3

Comparing San Francisco with the other 9 cities in the same population class, Table 14 and Figure 8, only 2 other cities rank lower in the number of pupils in the public elementary schools per 1,000 of

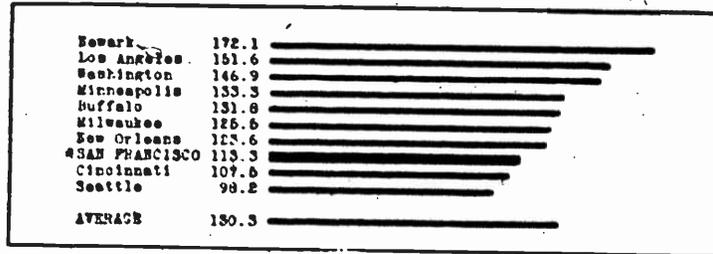


FIGURE 8.—Number of elementary school pupils per 1,000 population.

the total population. The average for the 10 cities is 15 per cent greater than the number in San Francisco, and the average for the first 5 cities in the list is nearly 30 per cent greater.

TABLE 15.—Number of high-school pupils (1915-16) per 1,000 population (1915) in 10 cities.

1. Los Angeles	25.9
2. Minneapolis	24.3
3. Seattle	20.5
4. Washington	20.3
5. Milwaukee	13.8
6. Newark	13.4
7. Buffalo	12.8
8. Cincinnati	12.3
9. SAN FRANCISCO	10.3
10. New Orleans	8
Average	16.1

As shown in Table 15 and Figure 9 only one city in the list ranks lower than San Francisco in number of high-school pupils per 1,000 of population. The average of the 10 cities is 56.3 per cent greater

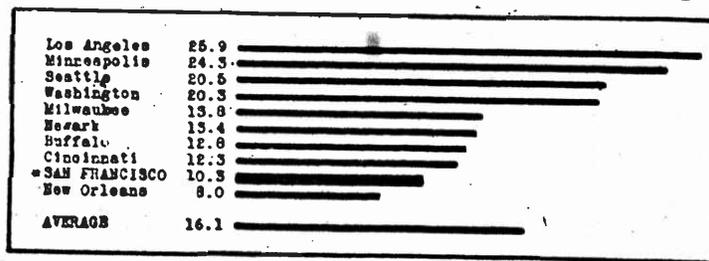


FIGURE 9.—Number of high school pupils per 1,000 population.

than the number in San Francisco. Washington and Seattle have approximately twice, and Minneapolis and Los Angeles two and one-half times as many pupils in the high schools, proportionately, as San Francisco.

TABLE 16.—Number of high-school pupils per 1,000 elementary-school pupils (1915-16) in 10 cities.

1. Seattle.....	208.8
2. Minneapolis.....	182.1
3. Los Angeles.....	170.8
4. Washington.....	138.4
5. Cincinnati.....	114
6. Milwaukee.....	110.3
7. Buffalo.....	97.4
8. SAN FRANCISCO.....	91
9. Newark.....	77.9
10. New Orleans.....	64.9
Average.....	125.5

Comparing the number of high-school pupils in proportion to the number of elementary school pupils, as shown in Table 16 and Figure 10, San Francisco again ranks low. Seattle and Minneapolis have more than twice as many high-school pupils, on this basis; and the average of the first four cities, 175 per 1,000 elementary school

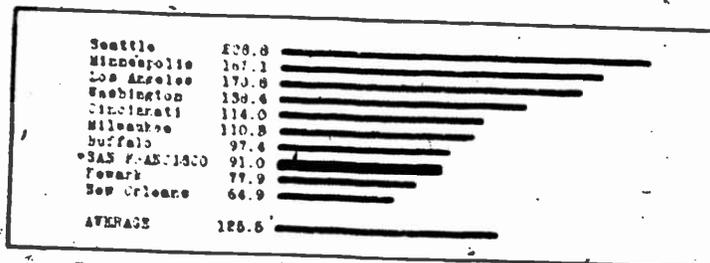


FIGURE 10.—Number of high-school pupils per 1,000 elementary school pupils.

pupils, is 92.3 per cent greater than the number in San Francisco. The average for the 10 cities is 37.9 per cent greater than the number in San Francisco.

The comparisons presented in the following pages are derived from the data in Table 8, page 18.

TABLE 17.—Total revenue receipts for public schools (1915-16) for each adult male (1915) in 10 cities.

1. Los Angeles.....	\$32.47
2. Washington.....	30.06
3. Newark.....	27.55
4. Buffalo.....	24.29
5. Minneapolis.....	19.72
6. Milwaukee.....	19.40
7. Cincinnati.....	18.76
8. Seattle.....	18.51
9. SAN FRANCISCO.....	16.06
10. New Orleans.....	10.82
Average.....	21.78

With available resources notably greater than the other cities, San Francisco ranks next to the lowest in the amount spent on public schools for each adult male, as shown in Table 17 and Figure 11.

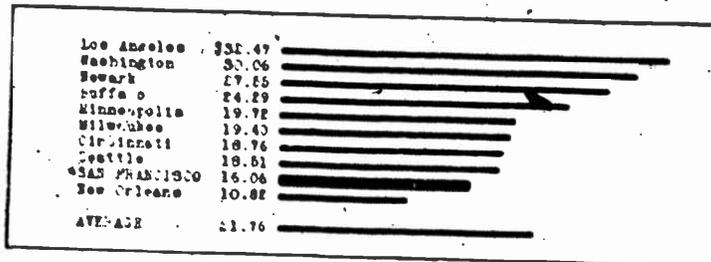


FIGURE 11.—Total school revenue receipts for each adult male.

The average for the 10 cities is 35.4 per cent greater, and the average for the first 4 cities, \$28.59, is 78 per cent greater, than the amount spent in San Francisco.

TABLE 18.—Total revenue receipts for public schools (1915-16) for each child 5 to 19 years of age (1915) in 10 cities.

1. Los Angeles	\$55.57
2. Washington	39.95
3. Seattle	39.39
4. SAN FRANCISCO	34.37
5. Newark	29.26
6. Minneapolis	28.60
7. Buffalo	26.04
8. Cincinnati	23.45
9. Milwaukee	20.40
10. New Orleans	10.72
Average	30.76

Comparing the amounts raised for public school purposes for each child of school age, Table 18 and Figure 12 show that San Francisco is surpassed by only 3 cities. The amount in San Francisco is above

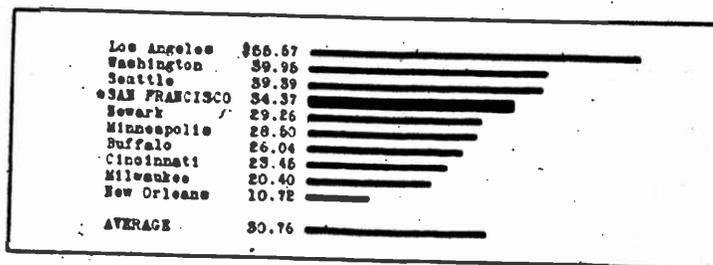


FIGURE 12.—Total school revenue receipts for each child 5 to 19 years of age.

the average for the 10 cities, and more than three times that reported for the lowest city in the list. It is, however, less than 62 per cent of the amount in Los Angeles.

TABLE 19.—Total revenue receipts for public schools (1915-16) for each \$1,000 of wealth (1915) in 10 cities.

1. Newark.....	\$7.90
2. Buffalo.....	5.62
3. Los Angeles.....	5.56
4. Washington.....	5.44
5. Seattle.....	5.09
6. Milwaukee.....	4.22
7. Cincinnati.....	3.95
8. New Orleans.....	3.42
9. Minneapolis.....	3.38
10. SAN FRANCISCO.....	2.83
Average.....	4.74

Table 19 and Figure 13 show that San Francisco ranks conspicuously behind other cities in the amount raised for public-school purposes in proportion to wealth. Proportionately, Washington, Los

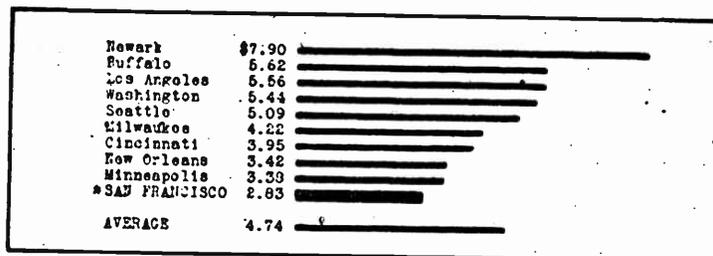


FIGURE 13.—Total school revenue receipts for each \$1,000 of wealth.

Angeles, and Buffalo spend nearly twice as much, and Newark nearly three times as much. The average for the 10 cities is 67.4 per cent greater than the amount raised in San Francisco.

TABLE 20.—Total revenue receipts for public schools (1915-16) per capita of total population (1915) in 10 cities.

1. Los Angeles.....	\$11.69
2. Washington.....	9.42
3. Newark.....	8.19
4. Seattle.....	7.94
5. Buffalo.....	7.34
6. Minneapolis.....	6.89
7. SAN FRANCISCO.....	6.78
8. Cincinnati.....	5.88
9. Milwaukee.....	5.87
10. New Orleans.....	3.10
Average.....	7.31

Comparing the cities on the basis of amount raised for public-school purposes per capita of total population, San Francisco ranks

seventh in the list, with \$6.78, as shown in Table 20 and Figure 14. The average for the 10 cities is 7.8 per cent greater than the amount

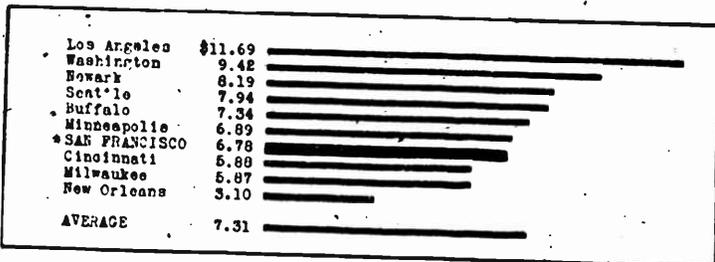


FIGURE 14.—Total school revenue receipts per capita of total population.

raised in San Francisco, and the average for the first 4 cities in the list, \$9.31, is 37.3 per cent greater.

TABLE 21.—Total revenue receipts for public schools for each child enrolled in public high schools, elementary schools, and kindergartens (1915-16) in 10 cities.

1. Seattle	\$66.83
2. Los Angeles	65.83
3. Washington	56.35
4. SAN FRANCISCO	54.82
5. Buffalo	50.75
6. Cincinnati	49.07
7. Newark	44.13
8. Minneapolis	43.71
9. Milwaukee	42.14
10. New Orleans	23.52
Average	50.99

Table 21 and Figure 15 show that San Francisco spends somewhat more than the average for the 10 cities for each child enrolled in

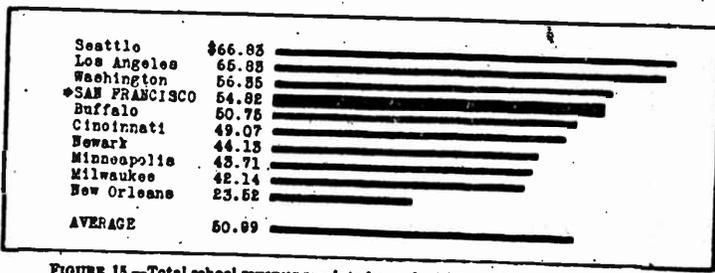


FIGURE 15.—Total school revenue receipts for each child enrolled in public schools.

the public schools, although the average for the 2 other Pacific coast cities, \$66.33, is 20.9 per cent greater than the amount spent in San Francisco.

SALARY OF SUPERINTENDENT.

That San Francisco ranks conspicuously behind other cities in amount of compensation paid to the superintendent of public schools is shown in Table 21a and Figure 15a:

TABLE 21a.—Salary of superintendent of schools in 10 cities, 1915-16.

1. Cincinnati.....	\$10,000
2. Los Angeles.....	8,000
3. Minneapolis.....	8,000
4. Milwaukee.....	7,500
5. Seattle.....	7,500
6. Newark.....	7,000
7. Buffalo.....	6,000
8. Washington.....	6,000
9. New Orleans.....	6,000
10. SAN FRANCISCO.....	4,000
Average.....	6,900

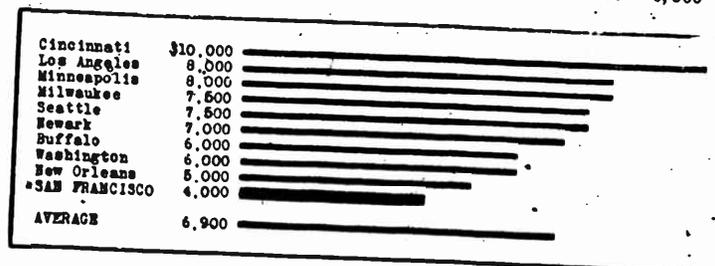


FIGURE 15a.—Salary of superintendent of schools.

The average for the 10 cities is 72.5 per cent greater than the salary paid in San Francisco. Two cities pay their superintendents twice as much as San Francisco, and Cincinnati pays two and one-half times as much.

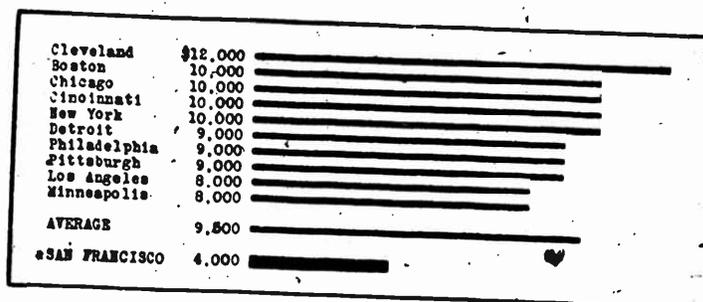


FIGURE 15b.—Salary of superintendent of schools.

The inadequacy of the salary paid the superintendent of schools in San Francisco is emphasized still further by comparison with the amounts paid in the 10 cities reporting the highest salaries, shown in Table 21b and Figure 15b.

TABLE 21b.—Salary of superintendent of public schools in 10 cities, 1915-16.

1. Cleveland.....	\$12,000
2. Boston.....	10,000
3. Chicago.....	10,000
4. Cincinnati.....	10,000
5. New York.....	10,000
6. Detroit.....	9,000
7. Philadelphia.....	9,000
8. Pittsburgh.....	9,000
9. Los Angeles.....	8,000
10. Minneapolis.....	8,000
Average.....	9,500
SAN FRANCISCO.....	4,000

From this comparison it appears that San Francisco has not kept pace with the tendency observable throughout the country in recent years to magnify the dignity and importance of the work of the city superintendent of schools, as indicated in the salary attached to that office. Of the 10 cities in this list the lowest pay twice as much salary as San Francisco. Four cities pay two and one-half times as much, and Cleveland pays three times as much.

The facts presented in the following pages were collected by the survey commission at the time of its visit to San Francisco and relate to the first half of the school year ended December 17, 1915.

DISTRIBUTION OF SCHOOL FACILITIES.

The smallest unit of area for which the 1910 census reports the population of San Francisco is the State assembly district. In Figure 16 is shown an outline map of the city with the approximate boundaries of assembly districts, with the population of each.

As shown in Figure 17, the five high schools are located within an area inclosed by a circle of approximately 2 miles diameter in the central portion of the city. Those children who reside within a reasonable distance of the center of this area are given their choice of the several types of high-school curriculum which the city provides under the prevailing system. Theoretically the same choice is open to all children, but the distances to be traversed and the difficulties involved in getting about in certain directions, because of topographic features, operate to prevent the exercise of such choice.

Not only are many thousands of children thus practically denied a choice of high-school work, but, as shown by comparing Figure 17 with Figure 16, there are large portions of San Francisco's population that have no high-school accommodations at all within convenient reach. To illustrate: The special type of service rendered by the Polytechnic High School is practically denied to most of the residents of districts 32 and 33 because of prohibitive distances. These two

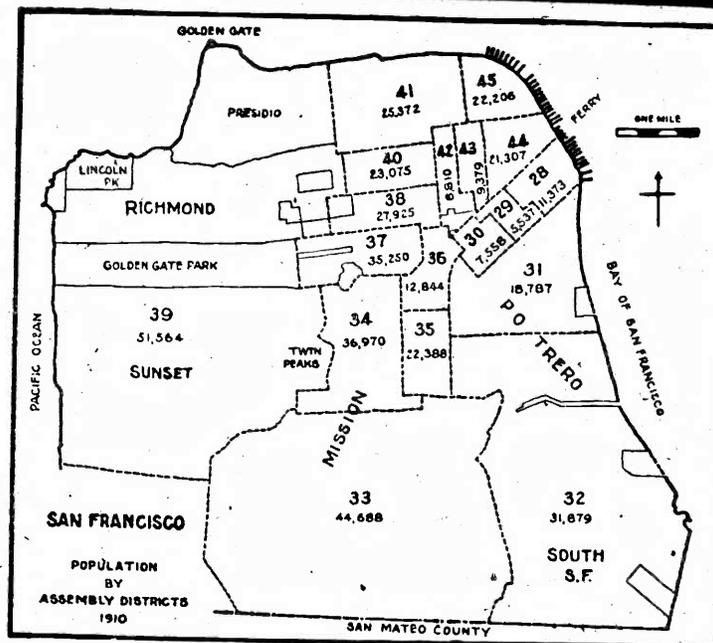
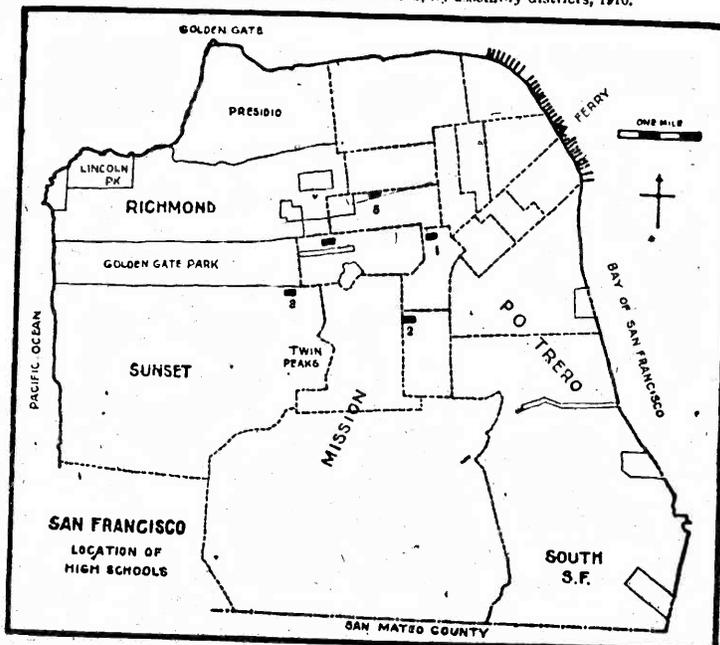


FIGURE 16.—Population of San Francisco, by assembly districts, 1910.



1. Commercial. 2. Mission. 3. Polytechnic. 4. Lowell. 5. Girls.

FIGURE 17.—The five high schools are located within an area enclosed by a circle of approximately 2 miles diameter in the central portion of the city. Comparing this map with Figure 16, it is clear that large portions of San Francisco's population are not provided with high school accommodations. For example, the special type of service rendered by the Polytechnic High School is practically denied to most of the residents of districts 32 and 33, because of prohibitive distances. These two districts have no high school within their boundaries, although in 1910 they had a population of 76,667—a population larger than Peoria, Ill., Elizabeth, N. J., Schenectady, N. Y., or Fort Worth, Tex.

districts have no high school within their boundaries, although in 1910 they had a population of 76,567—a population larger than that of Peoria, Ill., Elizabeth, N. J., Schenectady, N. Y., or Fort Worth, Tex.

As shown in Table 15, page 23, San Francisco has 10.3 students in her high schools per 1,000 of population. If the proportion is the same for these two districts, there were here 788 high-school students to be accommodated in 1910. The average enrollment of the five high schools in San Francisco was only 887 in 1915.

Figures 18 and 19 afford a basis for comparing the distribution of elementary schools with reference to the distribution of population by assembly districts. In studying the problem of distribution of elementary-school facilities the facts in Table 22 should be taken into consideration.

TABLE 22.—Number of elementary schools containing specified grades.

Grades.	Number of schools.
All grades, coeducational.....	40
All grades, girls only.....	2
Grades 1, 2.....	1
1, 2, 3.....	3
1, 2, 3, 4.....	11
1, 2, 3, 4, 5.....	15
1, 2, 3, 4, 5, 6.....	1
1, 2, 3, 4, 5, 6, 7.....	1
1, 5, 6, 7, 8.....	1
4, 5, 6, 7, 8.....	1
5, 6, 7, 8.....	2
6, 7, 8.....	2
Mixed grades (parental).....	1
Ungraded primary.....	1
Total.....	82

It is to be noted that of the 82 elementary schools, only 42 offer work in all grades, and of these two admit girls only. Work is offered in both seventh and eighth grades in 48 schools only. This much would be amply sufficient and more to put schools of this grade within easy reach of all children in the city if the schools were well distributed with due regard both to density of population and topographic features; but unfortunately this is not the case.

There are many instances of schools located in adjoining blocks, and other instances of spaces where the distances between schools are excessive. To illustrate: Districts 28 and 44, adjoining the ferry, with a combined population of 32,680 in 1910, contain but two schools—the Oriental School, including all grades, but not admitting white children, and the Rincon School, a two-teacher school, offering work in the first, second, and third grades only. According to Table 9, San Francisco has 113.3 elementary-school pupils per 1,000 of

THE PUBLIC SCHOOL SYSTEM OF SAN FRANCISCO.

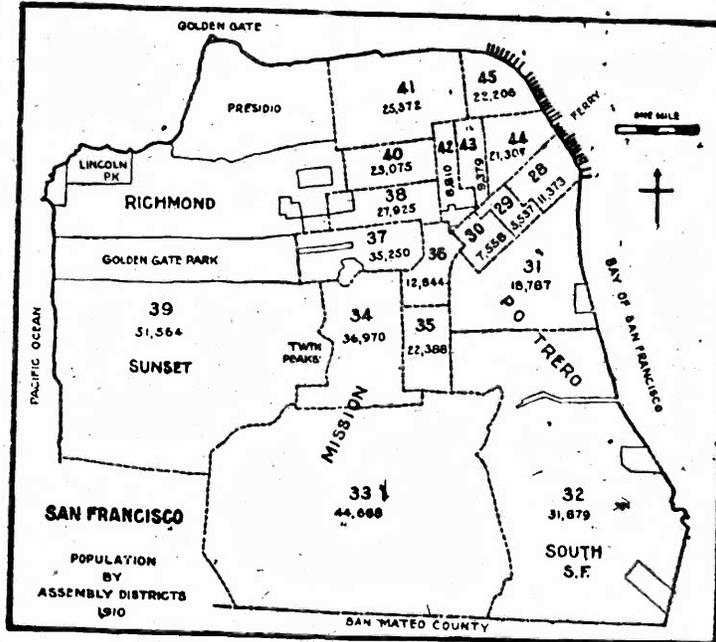


FIG. 18.—Population of San Francisco, by assembly districts, 1910.

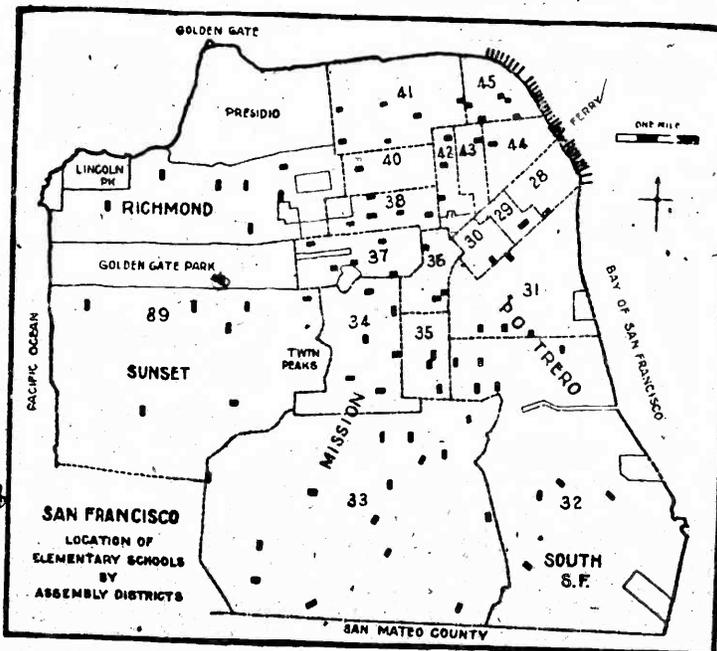


FIG. 19.—Although there are a number of instances of schools located in adjoining blocks, there are also a number of spaces where the distances between schools are excessive. For example, districts 28 and 44, with a combined population of 32,690, contain but two schools, and these are located near the boundaries.

population. If the proportion is the same for these two districts, there were here 3,702 elementary-school pupils to be accommodated in 1910.

The problem of the proper location of school buildings and distribution of school facilities is one requiring careful and expert study and thorough knowledge of local conditions, and an outside survey commission must approach it with caution. The problem can not be solved by merely taking a map and marking off a symmetrical and orderly arrangement of building sites.

Certain definite suggestions relating to individual schools or districts are offered in appropriate chapters of this report, but the larger problems of the location of schools must be settled by policies of the board of education based on further detailed studies made by its own experts. All that is attempted here is to suggest one method of approach and to call attention to the fact that the fundamental consideration should be the children and their needs.

THE CHILDREN IN THE SCHOOLS.

The first step in the study of the children in the school system is to ascertain how many children there are, of what ages, and in what school grades. This is called an age-grade distribution and is presented in Table 23.

The data upon which this table is based were obtained by the survey commission directly from the principals and teachers. They were requested to report the ages of pupils "computed as of September 1, 1915. Thus, a pupil 6 years and 5 months old September 1, 1915, should be recorded as '6 to 6½'; similarly, a pupil 6 years and 11 months old September 1, 1915, should be recorded as '6½ to 7'; etc."

Theoretically, a child entering school at the age of 6 years, and progressing at the normal rate of two grades (A and B) per year, should complete the elementary course at 14 years of age. It is generally agreed that the latest normal age for completing the elementary-school course is 15 years, which requires that pupils in the 8B grade shall not be more than 14½ years old on September 1. The corresponding normal ages for other grades are found by adding or subtracting six months for each half year of the school course. This method of computation, therefore, allows a latitude of one full year of age for each half year of the school course in designating the children regarded as of normal age.

In Table 23, in each grade, the numbers in the columns to the left of the heavy rules indicate the children who are ahead of their grade (accelerated), the numbers set within the heavy rules indicate the children who are up to grade (of normal age), and the numbers in

TABLE 23.—Age-grade distribution of pupils in the public elementary and high schools, San Francisco, Cal., for the term ended Dec. 17, 1915.

Grades.	Number of pupils of specified ages in each grade.																					Total.	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21 and over.
1A	637	2,462	1,050	618	230	139	44	31	17	15	7	9	1	15	2	1	1	1	1	1	1	1	5,314
1B	42	537	1,032	1,069	416	292	96	71	30	14	14	0	1	7	1	3	4	11	1	1	1	3,744	
2A	9	50	123	219	799	662	295	250	80	66	30	28	9	7	2	10	2	3	2	2	1	3,974	
2B	14	63	423	600	813	402	413	152	128	44	47	13	27	3	4	5	3	2	9	1	1	3,207	
3A	1	8	101	312	901	707	690	363	307	176	100	69	55	31	22	13	9	7	4	1	2	3,639	
3B	4	51	363	430	618	397	316	203	144	100	77	38	42	14	12	7	5	2	2	1	1	2,764	
4A	5	90	233	624	469	397	293	279	148	156	63	96	35	30	10	10	2	9	1	1	1	3,035	
4B	1	10	68	309	358	500	432	405	217	190	110	107	62	41	23	7	1	5	2	1	1	2,900	
5A	17	62	217	510	430	498	351	302	221	177	128	87	60	39	15	8	4	0	1	3	1	3,154	
5B	4	10	74	277	426	337	406	435	326	226	145	93	66	38	12	1	1	1	1	1	1	2,392	
6A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2,650	
6B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2,068	
7A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2,188	
7B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1,824	
8A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1,440	
8B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1,706	
Total elementary schools	698	3,121	2,586	3,435	2,581	3,212	3,321	3,083	2,179	2,636	2,119	2,380	2,135	2,477	2,106	2,325	1,879	1,743	1,315	1,021	531	238,104	
Total																							46,492

I.....	5	27	101	256	313	412	297	239	134	87	41	17	8	4	3	2	2,097
II.....	1	2	26	79	174	153	220	184	146	74	51	24	9	7	5	3	1,196
III.....																	
IV.....																	
Special.....																	
Total, high schools.....																	
Grand total.....	5	11	28	103	313	396	617	539	574	470	429	305	200	107	74	33	29,201,752,744

Teachers and principals were requested to report the ages of pupils "computed as of Sept. 1, 1915." Thus, a pupil 6 years and 5 months old Sept. 1, 1915, should be recorded as "6 to 6"; similarly, a pupil 6 years and 11 months old Sept. 1, 1915, should be recorded as "6 to 7"; etc. The records at the normal rate of two grades per year, should complete the elementary school course at 14 years, of age. It is generally agreed that the latest normal age for entering the eleventh grade is 15 years, which requires that pupils in the 11th grade should be at least 14 years old on Sept. 1. The corresponding normal ages for other grades are found by adding the number of months in each grade to the normal age. The numbers in the columns to the left of the figures in heavy rules indicate the number of children in each grade (as recorded), the numbers within the heavy rules indicate the children up to grade (of normal age), and the numbers in the columns to the right of the figures within heavy rules indicate the children behind their grade (retarded).

the columns to the right of the heavy rules indicate the children who are behind their grade (retarded).

The student of this table will observe at once—

(1) The wide spread in years of age represented by the enrollment in individual grades. Grades 1A and 2A contain pupils ranging in age from under 6 to over 19 years; grade 6B contains pupils ranging in age from 9 to 19 years; and so on.

(2) The wide distribution through the grades of pupils in individual age groups. Pupils who are 13 to 13½ years of age are found in all grades from 1A to the second year of high school; pupils 15 to 15½ years of age, in all grades from 1A to the third year of high school and so on.

(3) The large number of children who are above the normal age for the grades in which they are enrolled.

Table 24 summarizes the figures of Table 23, showing the enrollment by years of the school course. Disregarding the 23 unclassified high-school students, the same figures are presented in Figure 20. There are 9,058 children in the first grade, but only 2,007 in the first year of high school, and only 439 in the fourth year of high school.

Passing from the first to the second year, the number of pupils dropping out is 19.7 per cent of the enrollment in the first year. Passing from the eighth year of the elementary school to the first year of high school, the "elimination" is 37.5 per cent of the eighth-year enrollment. From the first year of high school to the second, the elimination is 39.8 per cent, and from the second to the third year the elimination is 51.1 per cent.

TABLE 24.—Number of pupils in each year of the public schools of San Francisco, August-December, 1915. (See Table 23 and Figure 20.)

	Year.	Number of pupils.
Elementary school:		
1.....		9,058
2.....		7,271
3.....		6,703
4.....		5,965
5.....		5,546
6.....		4,725
7.....		4,009
8.....		3,215
High school:		
I.....		2,007
II.....		1,198
III.....		585
IV.....		439
Special (unclassified).....		23
Total.....		50,744

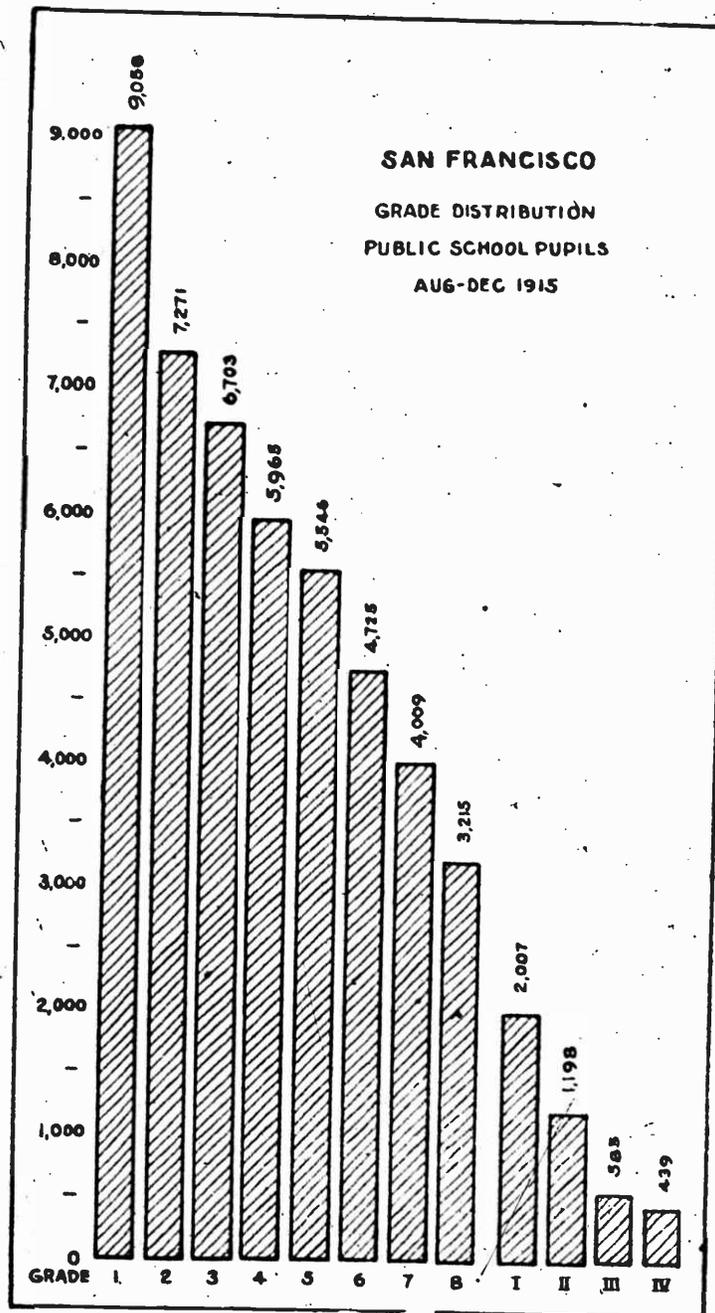


FIGURE 21. — With 9,058 children in the first grade, only 2,007 are found in the first year of high school, and only 439 in the fourth year. This figure disregards 23 unclassified high-school students. Aside from the drop following the first year, the greatest elimination takes place after the eighth, ninth, and tenth years.

Table 25 summarizes the figures of Table 23, showing the number of children in the public schools for each year of age, and the same distribution is shown in Figure 21. The number of children 14 years of age is 12.7 per cent less than the number 13 years of age; the number of 15-year-olds is 28.3 per cent less than the number of 14-year-olds; the number of 16-year-olds is 44.4 per cent less than the number of 15-year-olds; the number of 17-year-olds is 46.2 per cent less than the number of 16-year-olds.

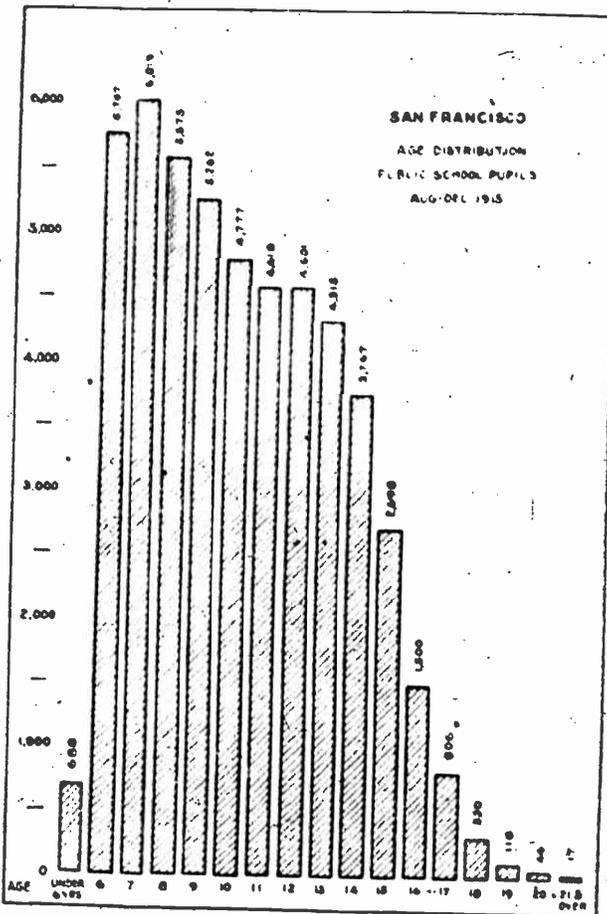


FIGURE 21.—After 13 years, and especially after 14, 15, and 16 years of age, the elimination of pupils from the public schools is very rapid.

TABLE 25.—Age distribution of pupils in the public elementary and high schools of San Francisco, August-December, 1915. (See Table 23 and Figure 21.)

Age	Number of pupils
Under 6 years	648
6 years	5,707
7 years	6,019
8 years	5,575
9 years	5,262
10 years	4,777
11 years	4,618
12 years	4,601
13 years	4,315
14 years	3,767
15 years	2,698
16 years	1,400
17 years	806
18 years	330
19 years	118
20 years	46
21 years and over	17
Total	50,744

As shown in Table 26 and Figure 22, however, the available figures for the composition of the population of San Francisco by age periods do not afford an explanation of the rapid falling off in numbers of children in the public schools after 13 years of age, nor of the rapid

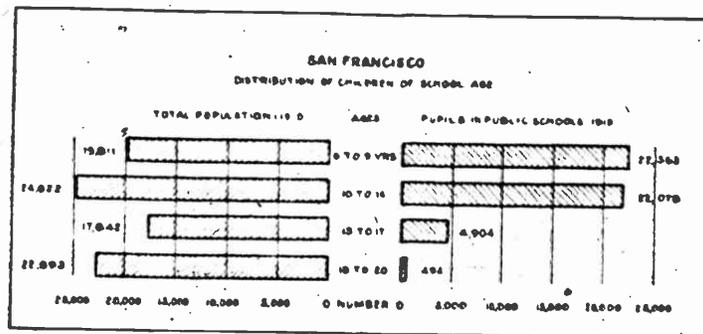


FIGURE 22.—The age distribution of the total population in San Francisco, in 1910, for ages 6 to 20 years shows no marked falling off in the numbers in the age periods following 14 years to correspond with the falling off in numbers of pupils in school in 1915. The reader is cautioned against attempting a direct comparison between the number of children in a given age group in 1910 with the number of pupils of these ages in school in 1915.

falling off in numbers of children after the eighth school year. The age distribution of the total population of the city, in 1910, for ages 6 to 20 years, shows no marked falling off in the numbers in the age periods following 14 years to correspond with the falling off in numbers of public-school pupils in 1915.

TABLE 26.—Distribution of children of school-age, San Francisco: (1) Total population, 1910; (2) pupils in public schools, 1915.

Age.	Total population, 1910.	Pupils in public schools, 1915.
6 to 9 years.....	19,811	22,563
10 to 14 years.....	24,422	22,078
15 to 17 years.....	17,842	4,904
18 to 20 years.....	22,863	494

SAN FRANCISCO AND OTHER CITIES.

Table 27 presents the enrollment figures for five other cities, for comparison with the enrollment in the San Francisco schools. The same figures reduced to per cent basis are shown in Table 28. Complete reports for the remaining four cities in the same population class are not available.

TABLE 27.—Distribution of public-school pupils, by grades, in 6 cities.¹

Grades.	San Francisco enrollment, Aug.-Dec., 1915.	Milwaukee enrollment, 1914-15.	Seattle enrollment, 1914.	Washington enrollment, 1915-16.	Cincinnati enrollment, June, 1914.	Los Angeles enrollment, 1914.
Kindergarten.....	575	9,859	602	3,836	3,050	7,807
Grade 1.....	9,058	7,850	5,097	8,851	7,058	12,798
2.....	7,211	6,066	4,022	6,665	5,524	8,028
3.....	6,703	5,139	3,821	6,576	5,423	8,408
4.....	5,965	5,010	3,960	6,215	5,230	7,983
5.....	5,546	4,733	3,722	5,944	5,006	7,154
6.....	4,725	4,577	3,298	5,258	4,336	6,426
7.....	4,009	4,098	2,810	4,322	3,270	6,157
8.....	3,215	3,217	2,409	3,741	2,697	6,134
I.....	2,007	1,763	2,274	2,935	1,872	3,932
II.....	1,198	1,230	1,359	1,913	1,112	2,154
III.....	585	899	1,079	1,178	734	1,694
IV.....	439	704	799	872	685	1,192
Ungraded.....	23	961				
Total.....	51,319	56,094	35,255	58,306	46,001	80,255

¹ From superintendents' reports.

² The report of the superintendent states 10,439 in one table and 3,932 in another.

TABLE 28.—Per cent distribution of public-school pupils, by grades, in 6 cities.

Grades.	San Francisco.	Milwaukee.	Seattle.	Washington.	Cincinnati.	Los Angeles.
Kindergarten.....	1.1	17.6	1.7	6.6	6.6	9.8
Grade 1.....	17.6	14	14.5	15.2	15.3	15.9
2.....	14.2	10.8	11.4	11.4	12	10
3.....	13.1	9.2	10.8	11.3	11.8	10.5
4.....	11.6	8.9	11.2	10.7	11.4	9.9
5.....	10.8	8.4	10.6	10.2	10.9	8.9
6.....	9.2	8.2	9.4	9	9.4	8
7.....	7.8	7.3	7.8	7.4	7.1	7.7
8.....	6.3	5.7	6.8	6.4	5.9	7.7
I.....	3.9	3.1	6.5	5	4.1	4.9
II.....	2.3	2.2	3.9	3.3	2.4	3
III.....	1.1	1.6	3.1	2	1.6	2.1
IV.....	.8	1.3	2.3	1.5	1.5	1.5
Ungraded.....	(1)	1.7				
Total.....	100	100	100	100	100	100

¹ Less than one-tenth of 1 per cent.

Of the six cities, San Francisco has the smallest per cent of enrollment in the kindergarten, but the largest in each of the first four years of the elementary schools. In the fifth year, San Francisco is surpassed by one city in per cent of total enrollment held; in the sixth year by two cities; in the seventh year by none; in the eighth year by three; in the first and second years of the high school by four cities; and in the third and fourth years by five cities. The average percentage for the five cities in the last two years of the high school is nearly twice the percentage for San Francisco; for the last year more than twice.

Table 29 compares the age distribution of public-school pupils in San Francisco with that in the three other cities from which reports are available.

TABLE 29.—Age distribution of public-school pupils in four cities.¹

Age in years.	San Francisco, Sept. 1, 1915.		Milwaukee, Sept., 1914.		Minneapolis, 1914.		Cincinnati, June, 1914.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Less than 6 years.....	688	1.4	7,629	13.6	2,399	4.7	149	0.3
6.....	5,707	11.2	5,829	10.4	4,888	9.9	2,861	5.8
7.....	6,019	11.9	5,603	10	4,864	9.8	4,242	8.7
8.....	5,575	11	5,003	8.9	4,407	9	4,725	10.3
9.....	5,262	10.4	4,429	7.9	4,386	8.9	4,343	9.5
10.....	4,777	9.4	4,417	7.9	4,108	8.4	4,156	9
11.....	4,618	9.1	4,195	7.5	4,128	8.4	4,224	9.2
12.....	4,601	9.1	4,332	7.7	4,181	8.5	4,216	9.2
13.....	4,315	8.5	4,429	7.9	4,080	8.2	3,940	8.6
14.....	3,767	7.4	4,328	7.7	3,798	7.7	4,394	9.6
15.....	2,698	5.3	2,768	4.9	3,186	6.5	2,754	5.7
16.....	1,800	3.6	1,527	2.7	2,169	4.4	2,132	4.4
17.....	836	1.6	885	1.6	1,456	3	1,264	2.7
18.....	330	.6	457	.8	902	1.8	744	1.6
19.....	118	.2	194	.4	316	.6	377	.8
20.....	46	.1	51	.1	138	.3	105	.2
Over 20.....	17	(*)	18	(*)	91	.2	32	.1
Total.....	50,744	100	56,094	100	49,167	100	46,001	100

¹ From reports of superintendents.

² Less than one-tenth of 1 per cent.

³ Exclusive of 575 pupils in kindergarten, whose ages were not reported.

San Francisco has the smallest proportion of children under 6 years of age, but the largest at each age from 6 to 10 years, inclusive. In per cent of pupils 11, 12, and 13 years of age, San Francisco is surpassed by one city; in per cent of pupils 15, 16, 17, and 20 years of age, San Francisco is surpassed by two cities; while San Francisco ranks lowest of the four cities in per cent of pupils 14, 18, and 19 years of age.

These figures emphasize the fact, discussed elsewhere, that the San Francisco schools do not hold as large proportions of the children 14 years of age and upward and in the later years of the school course as they should.

ACCELERATION AND RETARDATION.

Table 30 and Figure 23 show the number and per cent of children who are under age, of normal age, and over age, respectively, summarized from Table 23. The elementary schools are evidently not well adjusted to the capacities of children, since the grades show unduly large proportions of pupils who are too old for their grades. Even after making liberal allowance of one full year of age for each half year of the school course in designating the children regarded as of normal age, more than half of the pupils in grades four to eight, inclusive, are over age (retarded). The normal-age group ranges from 66 per cent in 1A to 32.9 per cent in 8B, with the minimum of 28.1 per cent in 6A.

Of all pupils in the elementary schools, 12.2 per cent are under age, 41.2 per cent are of normal age, and 46.4 per cent are over age. Approximately two-thirds of the pupils in the high schools are of normal age. Without doubt, the amount of retardation reported is due in part to the presence in the schools of considerable numbers of children of foreign parentage.

Figures relating to the degree of variation from normal age among public-school pupils are presented in Table 31. Of 5,652 elementary-school pupils who are under normal age, 4,573, or 89 per cent, are "accelerated" less than one year.

TABLE 30.—Number and per cent of children under age, of normal age, and over age.

Grades.	Under age.		Normal age.		Over age.		Total in grade.
	Number.	Per cent of total in grade who are under age.	Number.	Per cent of total in grade who are of normal age.	Number.	Per cent of total in grade who are over age.	
1A.....	617	12	3,512	66	1,165	22	5,314
1B.....	616	17	2,922	56	1,016	27	3,744
2A.....	482	12.2	2,918	61.4	1,454	36.4	3,974
2B.....	500	13.2	1,515	46.7	1,262	38.2	3,277
3A.....	452	11.5	1,808	40.9	1,879	47.6	3,919
3B.....	358	12.9	1,048	37.8	1,358	43.2	2,764
4A.....	356	11.7	1,021	36	1,596	52.3	3,045
4B.....	394	13.5	918	31.2	1,618	53.3	2,940
5A.....	246	9.4	955	30.3	1,901	60.4	3,154
5B.....	212	9.7	701	23.4	1,437	60.9	2,392
6A.....	241	9.1	746	28.1	1,672	62.8	2,659
6B.....	210	10.1	614	30.6	1,222	53.4	2,066
7A.....	211	10.6	658	30.1	1,240	53.8	2,185
7B.....	219	12	567	31.1	1,048	57	1,824
8A.....	157	10.9	429	29.6	861	53.5	1,440
8B.....	251	14.2	580	32.9	945	51	1,766
Total, elementary schools.....	5,652	12.2	19,116	41.2	21,724	46.4	46,492
I.....	144	7.2	1,308	65.2	555	27.6	2,007
II.....	108	9	761	61.8	327	27.2	1,196
III.....	73	12.5	397	61.7	115	19.6	585
IV.....	76	17.3	301	69.5	62	14.2	449
Special.....							23
Total, high schools.....	401	9.4	2,769	65.3	1,059	25.3	4,229
Grand total.....	6,053	11.9	21,881	43.2	22,783	44.9	50,744

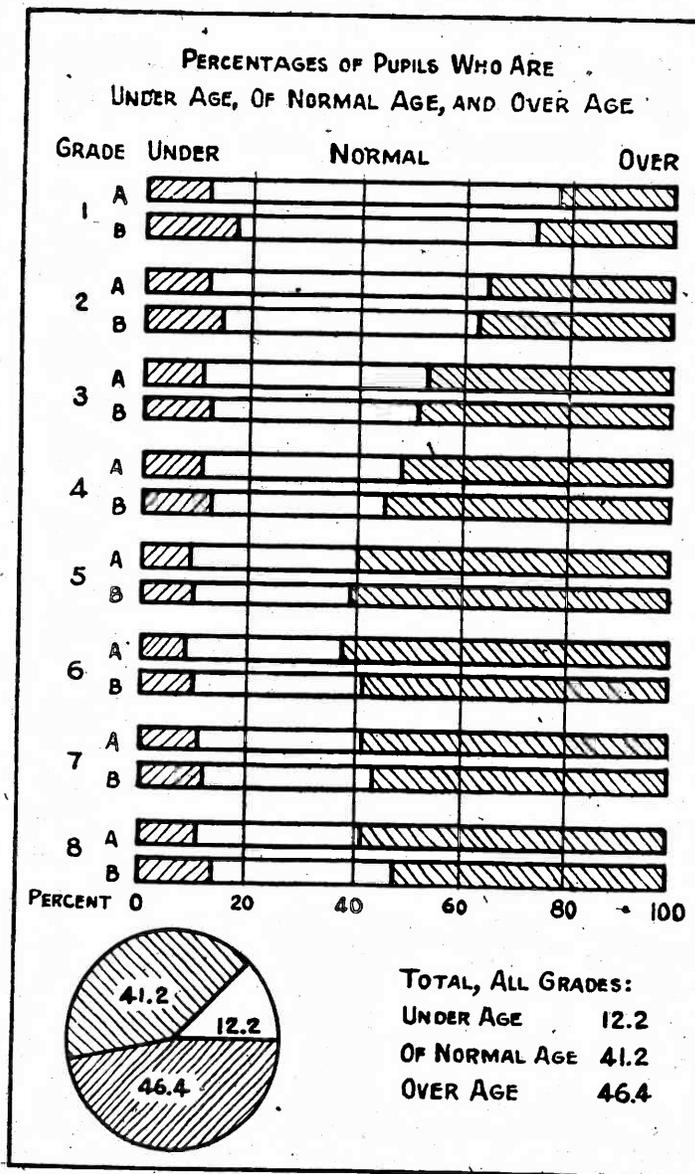


FIGURE 21.—The elementary schools are evidently not well adjusted to the capacities of children, since the grades show unduly large proportions of pupils too old for their grades. Even after making the liberal allowance of one full year of age for each half year of the school course in designating the children regarded as of normal age, in grades four to eight, inclusive, more than half of the pupils are over age (retarded). The normal-age group ranges from 66 per cent in 1 A to 32.9 per cent in 8 B, with the minimum in 6 A, 28.1 per cent.

Of 21,724 elementary school pupils who are over age, 6,916, or 32 per cent, are "retarded" less than one year; 8,511, or 39.2 per cent, are retarded one year and less than two; 3,840, or 17.7 per cent, are retarded two years and less than three; 1,574, or 7.2 per cent, are retarded three years and less than four; 883, or 4 per cent, are retarded four years or more.

Of 404 high-school pupils who are under normal age, 263, or 65.1 per cent, are accelerated less than one year.

Of 1,073 high-school pupils who are over age, 470, or 43.9 per cent, are retarded less than one year; 421, or 39.3 per cent, are retarded one year and less than two; 124, or 11.5 per cent, are retarded two years and less than three; 38, or 3.5 per cent, are retarded three years and less than four; 20, or 1.8 per cent, are retarded four years or more.

The figures relating to degree of variation from normal age, and numbers of pupils involved, are shown in Table 31, and, reduced to per cent basis, in Table 32.

TABLE 31.—Distribution of public-school pupils according to degree of variation from normal age.

Grades.	Number of pupils under normal age.				Number of normal age.	Number of pupils over age.					Total.	
	2 years and more.	1 year and less than 2 years.	Less than 1 year.	Total under normal age.		Less than 1 year.	1 year and less than 2 years.	2 years and less than 3 years.	3 years and less than 4 years.	4 years or more.		Total over normal age.
1A.....			637	637	3,512	618	389	75	32	51	1,165	5,314
1B.....		42	594	636	2,092	446	388	101	28	53	1,016	3,744
2A.....		59	423	482	2,038	662	545	148	58	41	1,454	3,974
2B.....		77	423	500	1,345	407	565	172	60	58	1,262	3,297
3A.....	1	109	342	452	1,608	686	700	276	124	93	1,879	3,939
3B.....		55	303	358	1,048	397	512	244	115	90	1,358	2,764
4A.....		101	255	356	1,093	497	532	304	149	107	1,586	3,035
4B.....	1	84	309	394	918	432	622	306	169	89	1,618	2,930
5A.....		79	217	296	555	498	656	398	215	136	1,903	3,154
5B.....	1	68	163	232	703	340	538	320	200	59	1,457	2,392
6A.....	5	84	152	241	746	43	674	371	159	53	1,672	2,659
6B.....	2	45	165	210	63	1,08	518	285	99	22	1,222	2,066
7A.....	1	70	160	231	658	370	542	319	71	14	1,296	2,185
7B.....	5	58	156	219	567	283	449	235	60	11	1,038	1,824
8A.....	2	41	114	157	429	256	427	147	28	5	863	1,449
8B.....	1	88	162	251	580	301	474	139	17	4	935	1,766
Total, elementary schools.....	19	1,060	4,573	5,652	19,116	6,916	8,511	3,840	1,574	883	21,724	46,492
I.....	5	28	1	144	1,308	239	221	58	20	1	555	2,007
II.....	1	28	79	108	763	146	135	33	10	3	327	1,198
III.....	1	32	40	73	397	55	40	12	8		115	585
IV.....	3	33	40	76	301	30	19	13			62	439
Special.....			3	3	6		6	8			14	23
Total, high schools.....	10	131	263	404	2,775	470	421	124	38	20	1,073	4,252
Grand total.....	29	1,191	4,886	6,056	21,891	7,386	8,932	3,964	1,612	903	22,797	50,744

TABLE 32.—Per cent distribution of public-school pupils according to degree of variation from normal age.

Grades.	Per cent under normal age.				Per cent of normal age.	Per cent over age.					Total.	
	2 years and more.	1 year and less than 2 years.	Less than 1 year.	Total under normal age.		Less than 1 year.	1 year and less than 2 years.	2 years and less than 3 years.	3 years and less than 4 years.	4 years or more.		Total over normal age.
1A.....			12	12	66.1	11.6	7.3	1.4	0.6	1	21.9	100
1B.....		1.1	15.9	17	55.9	11.9	10.3	2.8	.7	1.4	27.1	100
2A.....		1.5	10.6	12.1	51.3	16.7	13.7	3.7	1.5	1	36.6	100
2B.....		2.3	12.8	15.1	46.6	12.4	17.1	5.2	1.8	1.8	38.3	100
3A.....	(1)	2.8	8.7	11.5	40.8	17.4	17.8	7	3.1	2.4	47.7	100
3B.....		2	11	13	37.9	14.4	18.5	8.8	4.2	3.2	49.1	100
4A.....		3.3	8.4	11.7	36	16.4	17.6	10	4.9	3.4	52.3	100
4B.....	(1)	2.9	10.6	13.5	31.3	14.8	21.2	10.4	5.8	3	55.2	100
5A.....		2.5	6.9	9.4	30.3	15.8	20.8	12.6	6.8	4.3	60.3	100
5B.....	(1)	2.9	6.8	9.7	29.4	14.2	22.5	13.4	8.3	2.4	60.9	100
6A.....		0.2	3.2	5.7	9.1	28	16.4	24.6	13.9	6	62.9	100
6B.....		.1	2.2	7.9	10.2	30.7	14.9	25.1	13.8	4.3	59.1	100
7A.....	(1)	3.3	7.3	10.6	30.1	16	24.8	14.6	3.3	0.6	59.3	100
7B.....		.3	3.2	8.5	12	31.1	15.5	24.9	12.9	3.3	56.9	100
8A.....		.1	2.8	7.9	10.8	29.6	17.7	29.5	10.1	1.9	59.6	100
8B.....	(1)	5	9.2	14.2	32.8	17.1	26.8	7.9	1	0.2	53	100
Total, elementary schools.....		2.3	9.9	12.2	41.1	14.9	18.3	8.2	3.4	1.9	46.7	100
I.....		.3	1.9	5	7.2	65.2	11.9	11	2.9	1	27.6	100
II.....		.1	2.3	6.6	9	63.7	12.2	11.3	2.8	.8	27.3	100
III.....		.2	5.5	6.8	12.5	67.9	9.4	6.8	2	1.4	19.6	100
IV.....		.7	7.5	9.1	17.3	68.6	6.8	4.3	3		14.1	100
Special.....			13	13	26.1		26.1	34.8			60.9	100
Total, high schools.....		.2	3.1	6.2	9.5	65.3	11	9.9	2.9	.9	25.2	100
Grand total.....		.1	2.3	9.5	11.9	43.2	14.5	17.6	7.8	3.2	44.9	100

¹ Less than one-tenth of 1 per cent.

ELIMINATION, PROMOTION, AND NONPROMOTION.

Table 33 presents the figures for enrollment, elimination, promotion, and nonpromotion for the elementary schools. Of the 47,454 pupils enrolled, 3,668 were eliminated during the term, more than half of whom dropped out during the first three years of school. Of 43,786 who remained in class at the end of the term, 6,045 failed of promotion, of whom one-fourth were in the first year and nearly one-third in the second and third years.

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TABLE 33.—Enrollment, elimination, promotion, and nonpromotion, San Francisco elementary schools, by grades, for the term August-December, 1915.¹

Grades.	Total enrollment for term.	Number dropped during term and not returning because of—				Number in class at end of term.	Number in class at end of term.	
		Going to private or parochial schools.	Left the city.	Absent more than 3 whole days.	Total dropped and not returning.		Promoted.	Not promoted.
1A.....	5,043	41	269	254	564	4,479	3,511	968
1B.....	3,712	39	181	108	330	3,382	2,840	542
2A.....	4,048	29	177	104	310	3,738	3,202	536
2B.....	3,535	28	136	82	246	3,289	2,773	516
3A.....	3,867	33	160	90	283	3,584	3,045	539
3B.....	2,940	25	106	94	225	2,715	2,323	392
4A.....	3,345	36	139	82	257	3,088	2,606	482
4B.....	2,823	20	114	66	200	2,623	2,322	301
5A.....	3,141	38	121	71	230	2,911	2,571	340
5B.....	2,517	19	87	73	179	2,338	2,067	271
6A.....	2,731	31	104	62	197	2,534	2,258	276
6B.....	2,208	16	82	48	146	2,062	1,841	221
7A.....	2,375	23	90	61	174	2,197	1,906	291
7B.....	1,860	5	53	67	125	1,735	1,575	160
8A.....	1,744	10	60	53	125	1,619	1,466	153
8B.....	1,545	4	22	47	73	1,472	1,381	91
Total.....	47,454	397	1,903	1,368	3,668	43,786	37,741	6,045

¹ Includes 962 pupils not reported in age-grade distribution, Table 23.

Table 34 and Figure 24 summarize the figures of Table 33 on a per cent basis. Of pupils who remain in class to the end of the term the per cent not promoted is excessive (except in 8B), ranging from 21.6 per cent in 1A to 6.4 per cent in 8B.

TABLE 34.—Per cent of elimination and nonpromotion, San Francisco elementary grades, for the term August-December, 1915.

Grades.	Per cent of total enrollment dropped during the term.	Per cent of number in class at end of term not promoted.	Per cent of total enrollment dropped and not promoted.
1A.....	11.2	21.6	30.4
1B.....	8.9	16	23.4
2A.....	7.7	14.6	20.9
2B.....	6.9	15.6	21.6
3A.....	7.3	15	21.2
3B.....	7.6	14.5	20.9
4A.....	7.7	14	20.5
4B.....	7.1	11.5	17.7
5A.....	7.3	11.0	18.3
5B.....	7.1	11.6	17.9
6A.....	7.2	10.9	17.3
6B.....	6.7	10.7	16.6
7A.....	7.5	15.2	19.7
7B.....	6.6	11.4	16
8A.....	7.2	10.4	15.9
8B.....	4.7	6.4	10.5
Total 1, 2, 3.....	8.4	16.5	23.6
Total 4, 5, 6.....	7.1	11.7	18.1
Total 7, 8.....	6.6	10.1	16
Grand total.....	7.7	13.7	20.4

An encouraging feature is the gradual decrease in the rate of non-promotion from 1A to 6B. This is offset, however, by a substantial increase in nonpromotion in 7A and 7B. The per cent of nonpromotion is 16.5 in grades 1, 2, and 3; 11.7 in grades 4, 5, and 6; and 10.1 in grades 7 and 8.

Including the pupils who drop out during the term with those who fail of promotion, the total elimination from grade 1A is nearly one-third of the enrollment, from 1B nearly one-fourth, and from each grade from 2A to 4A, inclusive, more than one-fifth. More than one-fifth of all the children who enroll in the elementary schools either drop out before the end of the term or fail of promotion.

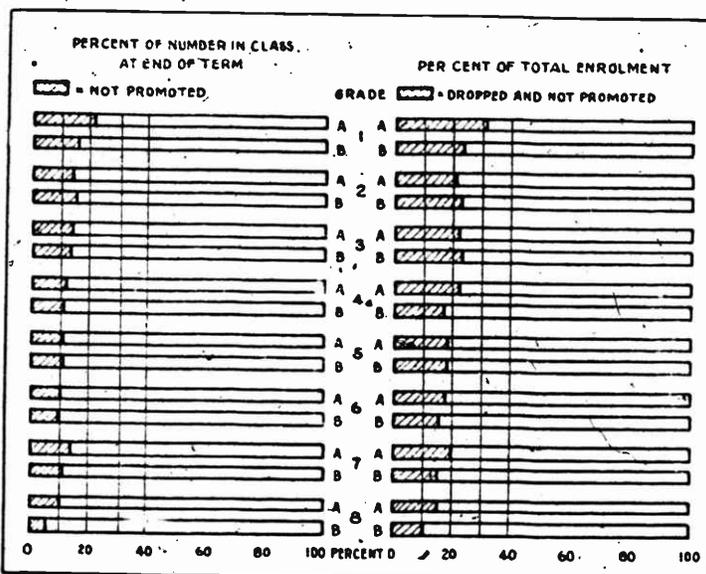


FIGURE 24.—Of pupils who remain in class to the end of the term, the per cent not promoted is excessive except in 8B, ranging from 21.6 per cent in 1A to 6.4 per cent in 8B. An encouraging feature is the gradual decrease in the rate of nonpromotion from 1A to 6B.

Including the pupils who drop out during the term with those who fail of promotion, more than one-fifth of the total enrollment of the elementary schools is eliminated.

As shown in Table 34, 30.4 per cent of the pupils enrolled in grade 1A either dropped out during the term or were not promoted; 23.4 per cent of the enrollment in grade 1B either dropped out or were not promoted; 20.9 per cent in grade 2A; and so on. At these rates, of 1,000 pupils enrolled in grade 1A, only 696 would be found in grade 1B, 533 in grade 2A, and 422 in grade 2B.

For various reasons the enrollment in the first year of the elementary school is usually considerably greater than the number of pupils entering the system annually. In order to show the rate of elimination of children from the schools, therefore, it is fairer to use the enrollment of the second year as a base.

Table 35 and Figure 25 show the number of pupils remaining in each grade, for each 1,000 pupils entering grade 2A, on the basis of the per cent of the enrollment dropped and not promoted in 1915. Approximately three-fourths of the 1,000 children have disappeared by the time grade 5A is reached; only 6 per cent enter high school; and only 25 out of each 1,000 children are graduated from high school.

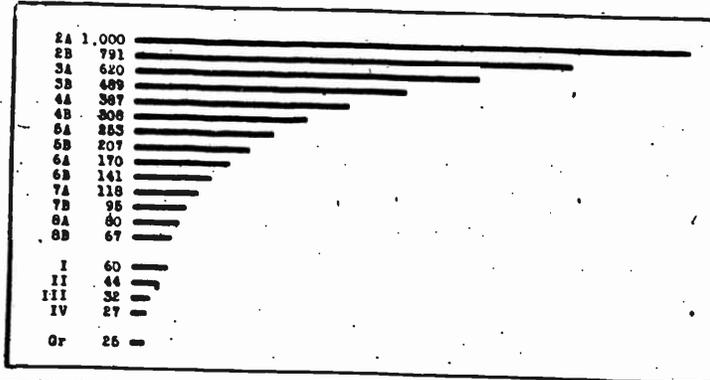


FIGURE 25.—Number of pupils remaining in each grade for each 1,000 pupils who enter grade 2A, on basis of per cent of enrollment dropped and not promoted in 1915.

It is true that not all of these pupils leave the school system permanently without completing the high-school course, since investigation shows many pupils who are one or more years behind the grades in which they would normally be found. Nevertheless, the figures disclose a serious situation, calling for radical readjustment.

TABLE 35.—Number of pupils remaining in each grade for each 1,000 pupils who enter grade 2A, on basis of per cent of enrollment dropped and not promoted in 1915.

Grades.	Number of pupils remaining in each grade.	Per cent of enrollment dropped and not promoted.
2A	1,000	20.9
2B	791	21.6
3A	620	21.2
3B	489	20.9
4A	387	20.5
4B	308	17.7
5A	253	18
5B	207	17.9
6A	170	17.3
6B	141	16.6
7A	118	19.7
7B	95	16
8A	80	15.9
8B	67	10.5
I	60	27.2
II	44	26.8
III	32	15.4
IV	27	8.2
Graduated	25	

While Table 35 takes into account the pupils who dropped out during the term as well as those who failed of promotion at the end, Table 36 presents a study of promotion based on the per cent of pupils

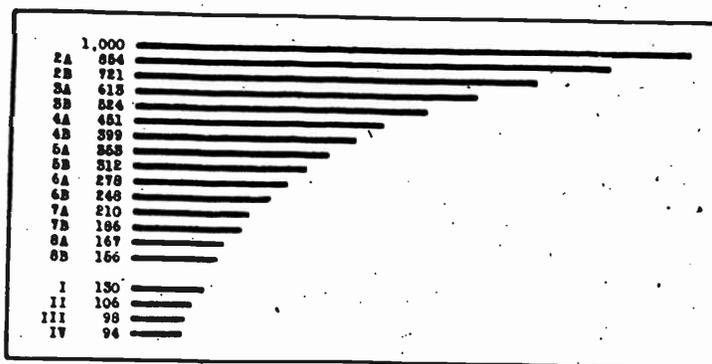


FIGURE 26.—Number of pupils promoted from each grade for each 1,000 pupils in grade 2A, on basis of per cent of pupils remaining in class at end of term who were promoted in 1915.

remaining in class at the end of the term who are promoted, on the basis of the per cent promoted in 1915. See also Figure 26.

TABLE 36.—Number of pupils promoted from each grade for each 1,000 pupils in grade 2A, on basis of per cent of pupils remaining in class at end of term who were promoted in 1915.

Grades.	Per cent of number in class at end of term who are promoted.	Number promoted.
2A	85.4	1,000
2B	84.4	854
3A	83.7	721
3B	83.5	613
4A	86	524
4B	83.5	451
5A	88.4	399
5B	88.4	353
6A	89.1	312
6B	89.3	278
7A	81.8	248
7B	84.6	210
8A	80.6	186
8B	80.6	167
I	83.6	166
II	81.4	130
III	81.9	106
IV	92.2	98
	94.2	94

Of each 1,000 children promoted from grade 1B to grade 2A, less than one-half are promoted from grade 4A; less than one-fourth are promoted from grade 7A; and less than one-tenth are promoted from the third and fourth years of high school.

Some students of public-school administration have taken the position that 92 per cent represents a probable minimum normal rate of promotion, based on number of pupils remaining in class at the end of the term.¹ It will be observed that in December, 1915, this rate of promotion was reached in only 3 of the 20 grades in the San Francisco schools—8B, 11I, and IV (Table 34).

At a uniform rate of promotion of 92 per cent, out of each 1,000 pupils promoted from grade 1B to grade 2A, 223 pupils would be promoted from the fourth year of high school, which is more than two and one-third times (2.37) the number reported for the San Francisco schools (94) in Table 36.

Table 37 and Figure 27 compare the San Francisco schools with those of Los Angeles and Newark in respect to per cent of pupils promoted, and number of pupils promoted from each grade, for each 1,000 pupils in grade 2A, on basis of per cent of pupils remaining in class at end of term who were promoted in 1915. The date of promotion reported for San Francisco is December 17, 1915, for Los Angeles and Newark, January 29, 1915.

TABLE 37.—Per cent of pupils promoted, and number of pupils promoted from each grade, for each 1,000 pupils in grade 2A, on basis of per cent of pupils remaining in class at end of term who were promoted in 1915: San Francisco schools compared with the schools of Los Angeles and Newark.¹

Grades.	Per cent of number in class at end of term who were promoted in 1915.			Number promoted for each 1,000 pupils in grade 2A.		
	San Francisco.	Los Angeles.	Newark.	San Francisco.	Los Angeles.	Newark.
1A.....	78.4	75.1	81.1			
1B.....	84	91.6	86.1	1,000	1,000	1,000
2A.....	83.4	91.2	89.1	834	912	891
2B.....	84.4	92.7	88.3	721	845	787
3A.....	85	90.7	90.4	613	766	711
3B.....	85.5	93.1	89.2	524	713	634
4A.....	86	92.2	88.9	451	657	554
4B.....	88.5	92.5	92.2	399	608	529
5A.....	88.4	93.2	87.3	373	577	454
5B.....	88.4	94.6	89.7	312	53	407
6A.....	89.1	93.3	90.2	278	501	377
6B.....	89.3	95.4	91.1	248	477	334
7A.....	84.8	94.5	88.9	210	451	297
7B.....	88.6	94.6	91.6	187	427	272
8A.....	89.6	95.6	91.5	167	408	249
8B.....	93.6	95.9	93.3	156	335	237

¹ Based on figures in reports of superintendents.

For each 1,000 pupils in grade 2A, San Francisco promoted 156 pupils from grade 8B, Newark promoted 237, and Los Angeles, 395. In this comparison the school system of Newark is 51.9 per cent

¹ For example, see Report of a Survey of the School System of Butte, Mont., June 2, 1914, p. 28.

more efficient than that of San Francisco, and the achievement of the Los Angeles schools is more than two and one-half times as great as that of the San Francisco schools. The conditions in the San Francisco schools are explainable in part by the large numbers of

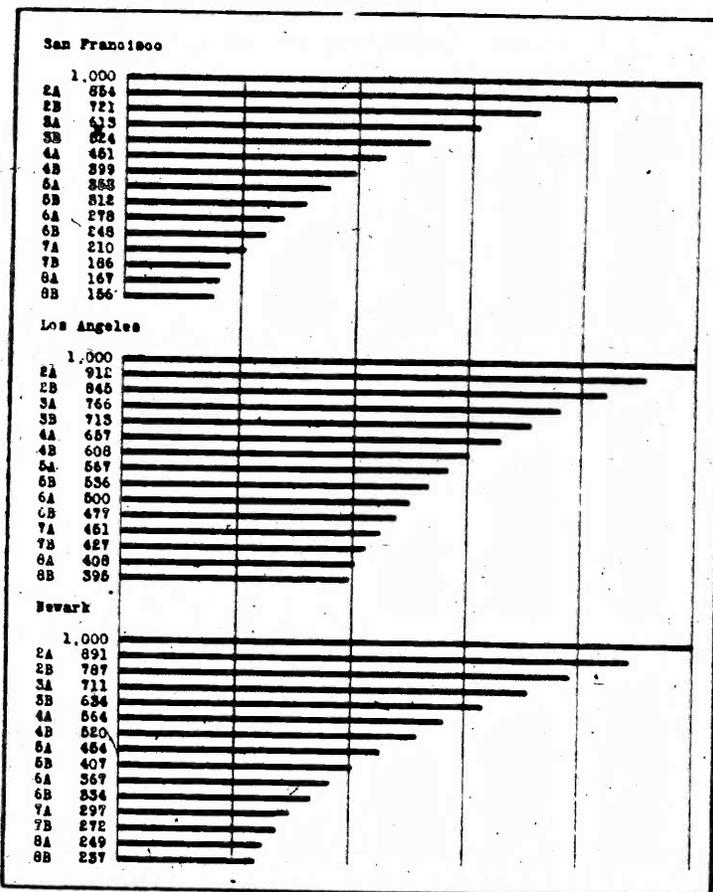


FIGURE 27.—Number of pupils promoted from each grade for each 1,000 pupils in grade 2A on the basis of per cent promoted in 1915. Newark carries 51.9 per cent more pupils through the eighth year than San Francisco, and Los Angeles more than two and one-half times as many.

pupils who drag behind their fellows and take two or more years to do the work of one. In these figures are found one reason for the act, discussed elsewhere in this report, that although San Francisco spends much less than other cities for her public schools, her schools cost somewhat more per pupil enrolled.

FAILURES BY SUBJECTS.

Further light is thrown upon the problem of nonpromotion by an examination of Table 38, which shows the number of pupils failing in each subject in the elementary schools for the term ended December 17, 1915. A summary by subjects, for all grades, is presented in Table 39 and Figure 28.

TABLE 38.—Enrollment and number of failures reported, by grades and subjects, elementary schools, for the term ended Dec. 17, 1915.

Grades.	Number of pupils failing in specified subjects.											Total Number.	Per cent.	Enrollment.				
	Arithmetic.	Language.	Spelling.	Geography.	Physiology.	U. S. history.	Writing.	Drawing.	Music.	Manual training.	Sewing.				Cooking.			
1A.....	107	529	7															
1B.....	47	244					62	47	28	21				790	1.9	5,043		
2A.....	436	307	341				84	51	24	9				1,252	6.1	4,641		
2B.....	458	186	389				87	47	8	2				1,077	5.2	3,535		
3A.....	540	313	354	131			131	80	22					1,092	7.8	3,667		
3B.....	555	284	253	67			145	65	4					1,269	6.3	2,940		
4A.....	576	297	237	220			112	81	21					1,571	7.7	3,315		
4B.....	431	250	194	165			120	52	16					1,263	6.2	2,823		
5A.....	531	371	214	265			137	80	17					1,624	7.9	3,141		
5B.....	569	353	183	311	2		146	110	52	5				1,721	6.4	2,517		
6A.....	430	259	146	240	14		101	109	50	18				1,371	6.7	2,731		
6B.....	421	279	130	225	25		108	83	46	31				1,420	6.9	2,346		
7A.....	454	372	142	273	48		83	35	25	10				1,750	8.6	2,375		
7B.....	365	324	77	166	20		80	38	20	10				1,373	6.7	1,880		
8A.....	268	250	99	169	14		75	41	14	17				1,146	5.7	1,744		
8B.....	311	249	55	91	4		38	21	13	10				846	6.2	1,543		
Total.....	6,501	4,654	2,672	2,343	133	1,122	1,407	843	326	91	19	21	20,482	100.0	47,554			
Per cent.....	31.6	24.6	13.0	11.6	.6	5.4	7.3	4.1	1.6	.4	.1	.1	100.0					

TABLE 39.—Number and per cent of failures, by subjects, elementary schools, for the term ended Dec. 17, 1915.

Subjects.	Number.	Per cent.
Sewing.....	19	0.1
Cooking.....	21	.1
Manual training.....	91	.4
Physiology.....	133	.6
Music.....	326	1.6
Drawing.....	813	4.1
United States history.....	1,122	5.4
Writing.....	1,517	7.3
Geography.....	2,343	11.6
Spelling.....	2,672	13
Language.....	4,651	21.6
Arithmetic.....	6,501	31.6
Total.....	20,482	100

The first fact to be observed in connection with these tables is the wide variation in the number of failures in the different branches of

the course of study. The failures are not distributed evenly, but range from 19 in sewing and 21 in cooking to 4,854 in language and 6,501 in arithmetic. These extreme variations are due partly to the fact that not all subjects are taught in every grade.

It will be noted, however, that at least six subjects are taught in every grade and that there are wide variations in the number of failures reported in these. The six subjects are arithmetic, language, spelling, writing, drawing, music. Two of these subjects, arithmetic and language, are responsible for more than half of all the failures in the elementary schools, 56.2 per cent. The single subject of spelling causes nearly as many failures (2,672) as writing, drawing, and music combined (2,676). It is clear, therefore, that even in the case of studies taught in all grades the requirements are very unequal.

It is not contended that all studies in the elementary school should be considered as of precisely equal importance, or that they should

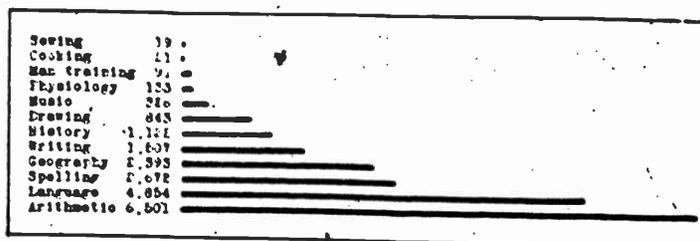


FIGURE 24.—Failure by subjects in elementary schools. Arithmetic and language cause more failures than the remaining 10 subjects combined.

count equally in determining the advancement of children from grade to grade. In fact, in the case of music, for example, from the point of view outlined elsewhere in this report,¹ it is not clear that a "failure" in music is necessarily of great significance as affecting a pupil's promotion. Nevertheless, these reports raise the very practical question as to the wisdom of permitting the requirements of any two or three subjects (of a total of 12) to cause such a disproportionate number of failures.

The facts in Table 38 should receive further careful study in connection with the discussion of the achievements of pupils in Chapter VII. Obviously, some readjustment is necessary. Either the requirements of the various subjects should be modified, in order to bring all more nearly in accord with the capacities of children, or the methods of instruction should be adjusted to meet more successfully the special difficulties disclosed.

¹ See Ch. X.

FAILURES BY GRADES.

Table 40 and Figure 29 present a summary of the distribution of enrollment and of failures, by grades.

TABLE 40.—*Per cent distribution of enrollment and failures, elementary schools, for the term ended Dec. 17, 1915.*

Grades.	Enrollment.	Failures.	Grades.	Enrollment.	Failures.
1A.....	10.6	3.9	1.....	18.4	5.6
1B.....	7.8	1.7	2.....	16.9	11.3
2A.....	8.5	6.1	3.....	14.4	14.1
2B.....	7.4	5.2	4.....	13	13.9
3A.....	8.2	7.8	5.....	11.9	16.3
3B.....	6.2	6.3	6.....	10.4	13.6
4A.....	7.1	7.7	7.....	8.9	15.3
4B.....	5.9	6.2	8.....	6.9	9.8
5A.....	6.6	7.9	Total.....	100	100
5B.....	5.3	8.4			
6A.....	5.8	6.7	1, 2, 3.....	49.7	31
6B.....	4.6	6.9	4, 5, 6.....	35.3	43.8
7A.....	5	8.6	7, 8.....	15.8	25.1
7B.....	3.9	6.7	Total.....	100	100
8A.....	3.7	5.6			
8B.....	3.2	4.2			
Total.....	100	100			

If the demands of school activities were accurately adjusted to the capacities of children, the work of the fifth grade would be no more and no less difficult for children of normal fifth-grade attainments than the work of the first grade is for children of normal first-grade

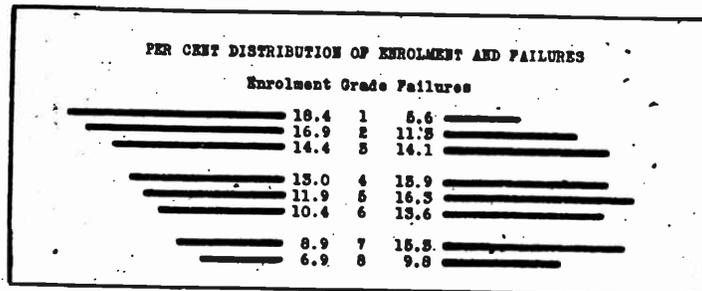


FIGURE 29.—Instead of being adjusted at all stages to the capacities of children, the requirements of the various branches of study become progressively difficult through the grades. With a rapidly diminishing enrollment, the number of failures does not decrease in proportion. Note that the seventh grade, with only 8.9 per cent of the total enrollment, reports 15.3 per cent of all the failures.

attainments. The figures presented indicate clearly that this adjustment is far from being realized.

Whereas the first grade contains 18.4 per cent of the total enrollment, it reports but 5.6 per cent of the total number of failures in individual subjects; the fourth grade, with 13 per cent of the total enrollment, reports 13.9 per cent of the failures; while the seventh

grade, with 8.9 per cent of the total enrollment, reports 15.3 per cent of the failures.

Again, grades 1, 2, and 3, with approximately one-half the total enrollment, 49.7 per cent, report less than one-third of the total number of failures, 31 per cent; grades 4, 5, and 6, with about one-third of the total enrollment, 35.3 per cent, report a little less than one-half of the failures, 43.8 per cent; grades 7 and 8, with a little more than one-eighth of the total enrollment, 15.8 per cent, report one-fourth of the failures, 25.1 per cent.

The fact that failures by individual subjects or studies are very unequally distributed through the grades is made clear by Table 41 and Figure 30. An index of failures by grades is obtained by dividing the per cent of the total number of failures by pupils in each grade by the per cent of the total enrollment found in that grade.

TABLE 41.—Index of failures: Ratio of per cent of enrollment to per cent of failures by subjects and by grades.

Grades.	Per cent of total enrollment in grade.	Per cent of total number of failures, by subjects.	Ratio of per cent of enrollment to per cent of failures.
1A.....	10.6	3.9	0.368
1B.....	7.8	1.7	.218
2A.....	8.5	6.1	.718
2B.....	7.4	5.2	.703
3A.....	8.2	7.8	.951
3B.....	6.2	6.3	1.016
4A.....	7.1	7.7	1.085
4B.....	5.9	6.2	1.051
5A.....	6.6	7.9	1.197
5B.....	5.3	8.4	1.585
6A.....	5.8	6.7	1.155
6B.....	4.6	6.9	1.500
7A.....	5	8.6	1.720
7B.....	3.9	9.7	1.718
8A.....	3.7	5.6	1.514
8B.....	3.2	4.2	1.313
Total.....	100	100	
1.....	18.4	5.6	.304
2.....	16.9	11.3	.669
3.....	14.4	14.1	.979
4.....	13	13.9	1.069
5.....	11.9	16.3	1.370
6.....	10.4	13.6	1.308
7.....	8.9	15.3	1.719
8.....	6.9	9.8	1.420
Total.....	100	100	
1, 2, 3.....	49.7	31	.624
4, 5, 6.....	35.3	43.8	1.241
7, 8.....	15.8	25.1	1.589
Total.....	100	100	

If any grade, for example, having 8 per cent of the enrollment, reported also 8 per cent of the failures, it could be said to have precisely its proportionate share of the failures. In such a case, the

quotient obtained by dividing the per cent of failures by the per cent of enrollment is 1. If a grade reports less than its share of failures, the quotient is less than 1, and if it reports more than its share of failures, the quotient is more than 1.

Referring to Figure 30; therefore, the heavy line represents the quotient obtained when per cent of failures and per cent of enrollment are the same. The grades which are represented by lines above and

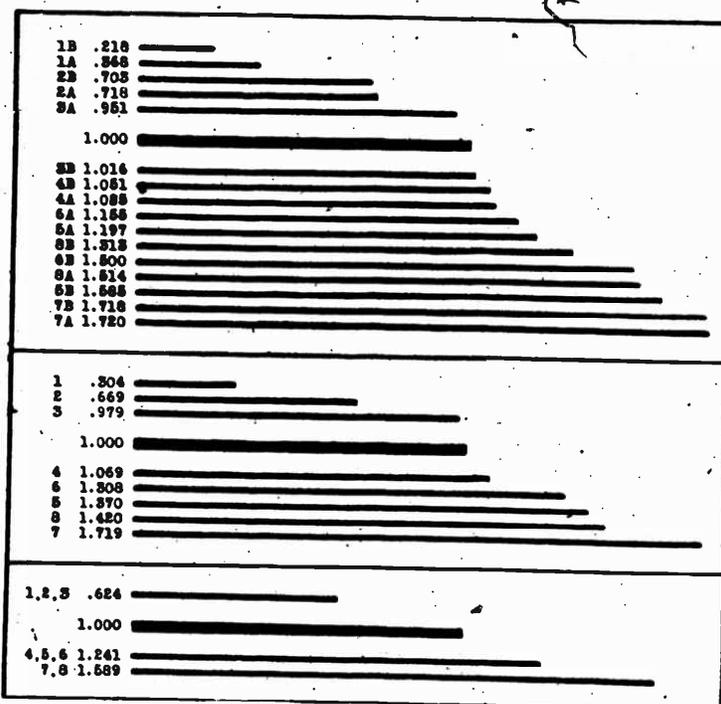


FIGURE 30.—Index of failures. An index of failures is obtained by dividing the per cent of the total number of failures by pupils in each grade by the per cent of the total enrollment found in that grade. The heavy line represents the quotient obtained when per cent of failures and per cent of enrollment are the same; that is, when a grade has precisely its proportionate share of failures. Grades represented by lines above and shorter than the heavy line report less than their share of failures, and grades represented by lines below and longer than the heavy line report more than their share of failures. The first section of the graph shows the ranking by separate grades, the second section by years, and the third section by groups of years combined.

shorter than this line report less than their proportionate share of failures, and those which are represented by lines below and longer than this line report more than their share of failures.

The first section of Figure 30 shows that of the 16 grades, 11 report per cents of failures in excess of corresponding per cents of the total enrollment. It also shows that grade 6A reports a smaller proportion of failures than 6B; 5A ranks much higher than 5B; 8B ranks higher than 8A. A sharp break in the curve is observable between grades 2A and 3A.

The second section of Figure 30 emphasizes the fact, discussed elsewhere in this report, that pupils encounter unusual difficulties in the seventh year. It also shows that the proportion of failures reported increases rapidly after the fourth year. The third section shows the relative standings of the primary grades combined, intermediate grades, and grammar grades.

Another view of the problem of elimination and the holding power of the schools is afforded by Table 42 and Figure 31.

TABLE 42.—Enrollment for the term ended Dec. 17, 1915, compared with the actual attendance reported on Feb. 24, 1916, in elementary schools.

Grades.	Enrollment for the term ended Dec. 17, 1915.	Actual attendance reported on Feb. 24, 1916.			Per cent of December, 1915, enrollment in preceding grade in attendance in each grade on Feb. 24, 1916.
		Boys.	Girls.	Total.	
1A.....	5,043	1,735	1,547	3,282	
1B.....	3,712	1,840	1,621	3,461	68.8
2A.....	4,048	1,694	1,333	2,997	80.9
2B.....	3,535	1,694	1,636	3,330	82.4
3A.....	3,867	1,575	1,543	3,118	88.3
3B.....	2,940	1,549	1,425	2,974	77
4A.....	3,345	1,693	1,360	3,053	103.8
4B.....	2,823	1,174	1,217	2,391	71.5
5A.....	3,141	1,374	1,263	2,637	83.2
5B.....	2,517	1,240	1,220	2,460	78.4
6A.....	2,731	1,128	1,095	2,223	88.5
6B.....	2,208	1,034	1,115	2,149	79
7A.....	2,375	923	956	1,879	84.9
7B.....	1,880	978	1,051	2,029	85.6
8A.....	1,744	777	838	1,615	85.9
8B.....	1,545	691	854	1,545	88.5
Total.....	47,454	21,009	20,134	41,143	82.5

¹ The enrollment for the term ended Dec. 17, 1915, exclusive of 8B was 45,909; the attendance on Feb. 24, 1916, exclusive of 1A was 37,861; 37,861 is 82.5 per cent of 45,909.

The actual attendance on any given day may be expected to vary considerably from enrollment figures. Nevertheless, the comparison is of value in showing the relative holding power of the various grades. So far as the promotions that took place at the middle of the school year in 1915-16 are concerned, it appears that two grades, 1B and 4B, held much smaller proportions of the enrollment of preceding grades than the system as a whole, while grade 5A held considerably more, and grade 4A evidently retained more than the usual proportion of its own enrollment of the previous term, as well as that of the preceding grade.

Table 43 presents the figures for enrollment, elimination, promotion, and nonpromotion for the five high schools for the half year ended December 17, 1915. Of 4,252 pupils reported, 29 left during the term to go to private or parochial schools, 99 left the city, 323 had been absent at the end of the term more than three whole days consecutively. Of the 3,801 remaining in class at the end of the term, 545 failed of promotion. More than half of those who dropped out

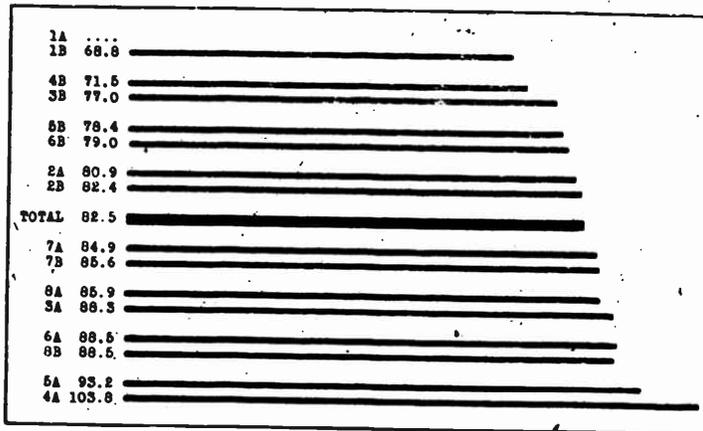


FIGURE 31.—Per cent of the December, 1915, enrollment in preceding grade in attendance in each grade on Feb. 24, 1916. Grades 1B and 4B held much smaller proportions of the enrollment of preceding grades than the system as a whole, while grade 5A held considerably more, and grade 4A evidently retained more than the usual proportion of its own enrollment of the previous term, as well as that of the preceding grade.

during the term and more than half of those who were not promoted were first-year pupils.

TABLE 43.—Enrollment, elimination, promotion, and nonpromotion, San Francisco high schools, by years, for the term August-December, 1915.

Year in high school.	Total enrollment for term.	Number dropped during term and not returning because of—				Number in class at end of term.	Number in class at end of term.	
		Going to private or parochial school.	Left the city.	Absent more than 3 whole days.	Total dropped and not returning.		Promoted.	Not promoted.
1.....	2,007	17	57	180	254	1,753	1,461	292
2.....	1,201	3	26	98	127	1,074	879	195
3.....	585	4	6	38	48	517	495	42
4.....	440	5	10	5	20	420	404	16
Special.....	19			2	2	17	17	
Total.....	4,252	29	99	323	451	3,801	3,256	545

TABLE 44.—Per cent of elimination and nonpromotion, San Francisco high schools, by years, for the term August-December, 1915.

Year in high school.	Per cent of total enrollment dropped during the term.	Per cent of number in class at end of term not promoted.	Per cent of total enrollment dropped and not promoted.
1.....	12.6	16.6	27.2
2.....	10.9	18.1	28.8
3.....	8.2	7.8	15.4
4.....	4.5	3.8	8.2
Special.....	10.5		10.5
Total.....	10.6	14.3	23.4

Table 44 shows the per cent of elimination and nonpromotion. Nearly one-fourth of all high-school pupils, 23.4 per cent, either dropped out during the term or failed of promotion at the end of the term. The proportions are especially heavy in the first and second years—27.2 and 26.8 per cent, respectively.

SIZE OF SECTIONS, AND FAILURES, BY SUBJECTS.

Table 45 shows the number of sections in the five high schools having specified number of pupils enrolled, average number of pupils per section, and number of failures, by groups of subjects.

TABLE 45.—Number and size of recitation, laboratory, and shop sections—Total number of pupils in all sections, and number of failures—High schools of San Francisco, Cal., August–December, 1915.

Subjects.	Total number of sections.	Number of sections having specified number of pupils.										Total number of pupils in all sections.	Average number of pupils per section.	Number of failures.	Per cent of total number failing.			
		Number of sections having specified number of pupils.																
		1 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	Over 50							
Ancient languages, total:	44	2	4	6	7	7	5	5	7	5	5	7	4	2	1,284	29.2	163	12.7
First year.....	20	1	1	2	2	3	5	5	2	2	2	4	3	2	666	34.3	81	8.1
Second year.....	13	1	1	1	4	3	3	3	1	1	1	1	1	2	466	31.2	77	7.7
Third year.....	6	1	3	1	1	1	1	1	1	1	1	1	1	1	107	17.8	4	4
Fourth year.....	5	1	1	3	1	1	1	1	1	1	1	1	1	1	170	17.0	4	4
Art and drawing, total:	35	1	6	10	12	10	9	4	2	2	2	2	1	1	1,424	35.0	50	3.5
First year.....	14	1	1	3	7	4	8	1	1	1	1	1	1	1	818	28.4	13	1.3
Second year.....	14	1	1	3	4	3	1	1	1	1	1	1	1	1	356	25.4	4	1.3
Third year.....	7	1	1	1	1	1	1	1	1	1	1	1	1	157	22.4	1	1	
Fourth year.....	4	1	1	1	1	1	1	1	1	1	1	1	1	92	30.7	4	4	
Commercial subjects, total:	90	2	2	5	5	2	6	1	1	1	1	1	1	1	3,482	38.7	503	14.4
First year.....	59	1	1	3	4	3	5	2	2	2	2	2	2	2	2,287	38.4	433	11.3
Second year.....	27	1	1	2	4	3	2	1	1	1	1	1	1	1	1,096	41.0	151	7.7
Third year.....	4	1	1	2	1	1	2	1	1	1	1	1	1	1	109	27.3	7	7
Fourth year.....	2	1	1	1	1	1	1	1	1	1	1	1	1	1	109	27.3	7	7
English and composition, total:	129	3	2	6	13	20	18	17	27	17	17	17	17	6	4,578	75.2	497	10.3
First year.....	51	1	1	1	4	4	4	4	10	10	10	10	10	2	2,020	38.3	217	10.7
Second year.....	40	1	1	1	5	7	7	6	7	6	6	6	4	1	1,554	38.6	181	11.3
Third year.....	25	1	1	1	2	2	2	2	4	4	4	4	2	1	829	33.2	94	11.3
Fourth year.....	11	1	1	1	1	1	1	1	1	1	1	1	1	1	298	26.0	56	21.5
History, total:	74	2	1	3	3	3	3	3	3	3	3	3	3	3	2,720	35.0	297	10.5
First year.....	29	1	1	1	2	2	2	2	2	2	2	2	2	2	1,082	37.0	117	11.7
Second year.....	23	1	1	1	3	4	4	4	4	4	4	4	4	4	1,082	37.0	117	11.7
Third year.....	12	1	1	1	1	1	1	1	1	1	1	1	1	1	411	34.3	35	10.2
Fourth year.....	10	1	1	1	1	1	1	1	1	1	1	1	1	1	846	84.6	92	10.9
Home economics, total:	38	4	4	6	13	17	16	11	11	11	11	11	11	11	457	32.6	25	5.5
First year.....	21	1	1	2	4	4	4	4	4	4	4	4	4	4	210	21.0	9	4.3
Second year.....	12	1	1	2	3	3	3	3	3	3	3	3	3	3	114	11.4	9	7.9
Third year.....	4	1	1	1	1	1	1	1	1	1	1	1	1	1	114	11.4	9	7.9
Fourth year.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	114	11.4	9	7.9
Mathematics, total:	95	6	6	4	7	13	7	7	20	11	11	11	11	11	3,209	34.6	533	15.3
First year.....	50	1	1	3	3	5	5	5	11	10	10	10	10	10	1,860	37.2	267	14.3
Second year.....	27	1	1	1	2	3	3	3	6	6	6	6	6	6	1,141	42.3	141	12.3
Third year.....	17	1	1	1	1	1	1	1	1	1	1	1	1	313	31.3	51	16.3	
Fourth year.....	30	1	1	1	1	1	1	1	1	1	1	1	1	671	67.1	63	9.4	
Mechanical and geometrical drawing, total:	10	1	1	1	1	1	1	1	1	1	1	1	1	224	22.4	19	8.5	
First year.....	5	1	1	1	1	1	1	1	1	1	1	1	1	76	15.2	7	9.4	
Second year.....	3	1	1	1	1	1	1	1	1	1	1	1	1	76	15.2	7	9.4	
Third year.....	1	1	1	1	1	1	1	1	1	1	1	1	1	76	15.2	7	9.4	
Fourth year.....	1	1	1	1	1	1	1	1	1	1	1	1	1	76	15.2	7	9.4	

Miscellaneous, total ¹	7	1	1	1	1	1	1	1	2	2	2	430	61.4	5	1.1
First year.....	6	1	1	1	1	1	1	1	2	2	2	395	65.8	4	
Third year.....	1											35	55.0	1	
Modern foreign languages, total ²	127	8	16	20	24	34	44	54	64	74	84	3,354	27.3	377	12.4
First year.....	56	1	2	3	4	5	6	7	8	9	10	1,870	23.0	125	
Second year.....	37	1	2	3	4	5	6	7	8	9	10	1,070	17.2	78	
Third year.....	15	3	5	7	9	11	13	15	17	19	21	258	17.2	24	
Fourth year.....	7	4	1	2	2	2	2	2	2	2	2	107	15.3	8	
Unclassified.....	2											213	30.4	1	
Sciences, total ³	6	1	1	1	1	1	1	1	1	1	1	2,560	28.6	24	9.0
First year.....	3	1	1	1	1	1	1	1	1	1	1	972	33.5	77	
Second year.....	2	1	1	1	1	1	1	1	1	1	1	720	25.7	77	
Third year.....	2	1	1	1	1	1	1	1	1	1	1	596	25.5	65	
Fourth year.....	1	1	1	1	1	1	1	1	1	1	1	362	27.8	15	
Shop work and crafts, total ⁴	30	1	1	1	1	1	1	1	1	1	1	739	24.6	22	3.0
First year.....	16	1	1	1	1	1	1	1	1	1	1	455	27.2	13	
Second year.....	6	1	1	1	1	1	1	1	1	1	1	148	24.7	9	
Third year.....	6	1	1	1	1	1	1	1	1	1	1	148	24.7	9	
Fourth year.....	5	1	1	1	1	1	1	1	1	1	1	148	24.7	9	
Grand total.....	809	14	49	81	124	151	101	95	98	66	30	25,422	31.4	2,788	10.9

¹ Greek and Latin.
² Includes applied art, freehand drawing, and history of art.
³ Bookkeeping, stenography, and typewriting.
⁴ Includes debate, drama, and oral expression.

⁵ Includes algebra, algebra theory, arithmetic, geometry, surveying, and trigonometry.
⁶ Economic, educational guidance (280 first-year pupils in two sections), physical geography, and orchestra.
⁷ French, German, and Spanish.
⁸ Includes biology, chemistry, geology, physics, and physiology.



This table necessarily contains many duplications, since the average number of subjects taken by each pupil is 5.9. The number of sections having fewer than 16 pupils is small—only 7.7 per cent of the total. On the other hand, 390 sections, or 48.2 per cent, report enrollment of 31 pupils or more, and 194 sections, or nearly one-fourth of the entire number of sections (23.9 per cent), report enrollment of more than 40 pupils each.

Only three groups of subjects average fewer than 25 pupils per section—home economics, mechanical drawing, and shopwork. Four groups of subjects average 34 or more pupils per section—commercial subjects, English and composition, history, and mathematics. The average for the "miscellaneous" group, 61.4, is accounted for by two large sections of first-year pupils in educational guidance.

As shown in the last two columns of Table 45, a great variety of conditions prevails in respect to the number and per cent of failures reported. Five sections of third and fourth year home economics,

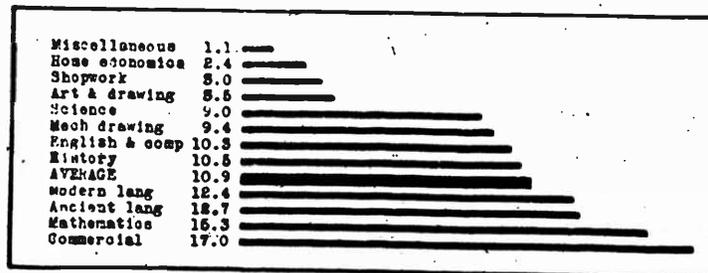


FIGURE 12.—Per cent of total enrollment failing, by subjects. With respect to per cent of failures, the subjects fall into three well-defined divisions: (1) Four groups in which the failures range from 1.1 to 3.5 per cent; (2) six groups in which the failures range from 9 to 12.7 per cent; (3) two groups in which the failures range from 15.3 to 17 per cent. Apparently pupils find it more than seven times as difficult to satisfy the demands of the courses in commercial subjects as in home economics and nearly six times as difficult as in shopwork courses.

seven sections of modern foreign languages, and eight sections of third and fourth year shopwork, with a total of 515 pupils, report no failures. At the other extreme will be noted 59 sections of first-year commercial subjects, having a total of 2,267 pupils, which report 433 failures, or 19.1 per cent of the enrollment.

With respect to per cent of failures, as shown in Figure 32, the subjects fall into three well-defined divisions: (1) Four groups in which the failures range from 1.1 to 3.5 per cent—miscellaneous, home economics, shopwork, art and drawing; (2) six groups in which the failures range from 9 to 12.7 per cent—science, mechanical drawing, English and composition, history, modern language, ancient language; (3) two groups in which the failures range from 15.3 to 17 per cent.

Apparently pupils find it more than seven times as difficult to satisfy the demands of the courses in commercial subjects as in home economics, and nearly six times as difficult as in shopwork courses.

Table 46 and Figure 33 summarize the enrollment and failures reported, by years, of the high-school course. Although more than half of all the failures occur in the first year, the per cent of failures in the second year, 12.6 per cent, is higher than that in the first year, 11.6 per cent.

TABLE 46.—Summary of enrollment in classes, by years, and failures, in San Francisco high schools, August-December, 1915.

Year in high school.	Enrollment.	Failures.	
		Number.	Per cent.
1.....	13,241	1,519	11.6
2.....	7,277	916	12.6
3.....	3,019	250	8.3
4.....	1,670	81	4.9
Unclassified.....	213		
Total.....	25,422	2,786	10.9

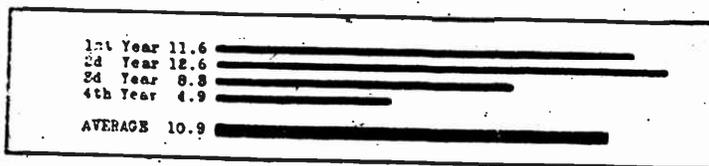


FIGURE 33.—Per cent of total enrollment failing, by years. The per cent of failures is much higher in the first and second years of high school than in the third and fourth.

INSTRUCTION OF SPECIAL GROUPS OF CHILDREN.

Principals and teachers in the elementary and high schools were requested to prepare statements showing the following facts:

- (1) Number of deaf children enrolled in school, i. e., children so deaf as to require special attention or instruction.
- (2) Number of deaf children not attending school, in the families of children enrolled in school.
- (3) Number of blind children enrolled in the schools.
- (4) Number of blind children not attending school, in the families of children enrolled in school.
- (5) Number of crippled children enrolled in the schools.
- (6) Number of crippled children not attending school, in the families of children enrolled in school.

A summary of these reports is presented in Table 47.

TABLE 47.—*Special groups of children.*

	Number of children.	Number of schools reporting.
Deaf children in school.....	139	24
Deaf children in homes.....	24	17
Blind children in schools.....	13	9
Blind children in homes.....	13	13
Crippled children in school.....	297	68
Crippled children in homes.....	92	49
Total deaf children reported.....	63	
Total blind children reported.....	26	
Total crippled children reported.....	389	
Grand total.....	478	74

¹ Exclusive of 30 deaf children enrolled in the Oral School for the Deaf.

The large numbers of children in these groups and the large number of schools involved call for special expert attention to a degree not now afforded in the organization of the San Francisco schools. Further discussion of this topic occurs elsewhere.

The survey commission had no facilities for a detailed study of the problem of mental deviates. This work requires special technical knowledge and experience and laboratory and clinical equipment. Such observations as were possible indicated clearly the need of special provision for such study, as recommended elsewhere in this report.

THE TEACHING STAFF.

Of 1,104 teachers and principals in elementary schools reporting, exclusive of special teachers (manual training, etc.), only 17 are men, 1.5 per cent. Of 137 high-school teachers and principals reporting, 61 are men, 44.5 per cent.

EXPERIENCE.

The teachers and principals were asked to report on the number of years of experience in teaching or supervising, or both, prior to July 15, 1915. A summary of these reports, by schools, is presented in Table 48 and Figure 34.

The average number of years' experience for all teachers and principals is 16.6 for high schools and 18.2 for elementary schools.

There are 25 elementary schools in which the average number of years of experience of principals and teachers is 20 or more and 8 schools in which the average is 25 years or more.

There are only four elementary schools in which the average number of years of experience of principals and teachers is less than 10 years and only 18 schools in which the average is less than 15 years.

TABLE 48.—Number of years of experience in teaching or supervising, or both, prior to July 15, 1913; teachers and principals, public elementary and high schools, San Francisco.

Names of schools:	Number of persons reporting specified number of years of experience.										Total number of years reported.	Average number of years per teacher.																				
	1 year or less.	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34			35-39	40-44	45-49																	
HIGH SCHOOLS.																																
Girls.....														2	2	7	2	23	56	19	15	13	7	4	3	2	1	136	2,258	16.6		
Lowell.....														1	1	1	1	1	1	1	2	1	2	3	1	1	2	2	165	165	20.2	
Mission.....														1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Polytechnic.....														2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	386	19.3		
Commerce.....														1	1	1	1	1	1	1	1	1	1	1	1	1	1	31	309	19.3		
Total in high schools.....														2	2	7	2	23	56	19	15	13	7	4	3	2	1	136	2,258	16.6		
ELEMENTARY SCHOOLS.																																
Adams Cosmopolitan.....														3	3	3	3	3	3	3	3	3	3	3	3	3	3	17	328	19.3		
Agassiz.....														1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Andrew Jackson.....														2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	309	16.2		
Bay View.....														1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Bernal.....														2	2	2	2	2	2	2	2	2	2	2	2	2	2	15	314	20.9		
Bryant Cosmopolitan.....														1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	284	16.6		
Buena Vista.....														1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	339	23.8		
Burnett.....														1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	99	14.1		
Cleveland.....														2	2	2	2	2	2	2	2	2	2	2	2	2	11	218	21.6			
Columbis Cosmopolitan.....														1	1	1	1	1	1	1	1	1	1	1	1	1	13	181	13.9			
Columbus.....														2	2	2	2	2	2	2	2	2	2	2	2	2	20	471	23.6			
Cusker International.....														1	1	1	1	1	1	1	1	1	1	1	1	1	6	93	15.8			
Daniel Webster.....														3	3	3	3	3	3	3	3	3	3	3	3	3	15	270	18			
Dannan.....														1	1	1	1	1	1	1	1	1	1	1	1	1	10	113	11.4			
Douglas.....														2	2	2	2	2	2	2	2	2	2	2	2	2	13	240	22.2			
Dudley Stone.....														1	1	1	1	1	1	1	1	1	1	1	1	1	12	171	14.3			
Eaton.....														3	3	3	3	3	3	3	3	3	3	3	3	3	13	317	26.7			
Edwin Allen.....														1	1	1	1	1	1	1	1	1	1	1	1	1	16	218	13.6			
Everett.....														2	2	2	2	2	2	2	2	2	2	2	2	2	14	205	15.8			
Fairmount.....														2	2	2	2	2	2	2	2	2	2	2	2	2	5	115	23			
Fernside.....														3	3	3	3	3	3	3	3	3	3	3	3	3	29	114	22.4			
Franklin.....														1	1	1	1	1	1	1	1	1	1	1	1	1	26	452	17.4			
Scott Key.....														1	1	1	1	1	1	1	1	1	1	1	1	1	11	133	12.1			
Franklin Cooppin.....														2	2	2	2	2	2	2	2	2	2	2	2	2	7	98	12.3			
Franklin.....														2	2	2	2	2	2	2	2	2	2	2	2	2	18	334	18.6			
Franklin.....														2	2	2	2	2	2	2	2	2	2	2	2	2	15	241	16.1			

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TABLE 48.—Number of years of experience in teaching or supervising, or both, prior to July 15, 1915; teachers and principals, public elementary and high schools, San Francisco—(Continued).

Names of schools.	Number of persons reporting specified number of years of experience.											Total number of years of years reported.	Average number of years per teacher.				
	1 year or less.	2 years.	3 years.	4 years.	5-9	10-14	15-19	20-24	25-29	30-34	35-39			40-44	45-49	50-54	
ELEMENTARY SCHOOLS—Continued.																	
Fremont.....															15	271	18.1
Garfield.....															17	225	13.2
George Peabody.....															11	180	17.3
Glen Park.....															18	234	18.6
Golden Gate.....															15	256	21.7
Grant.....															11	177	11.8
Gratian.....															20	267	18.4
Haight.....															13	275	21.2
Hamilton Intermediate.....															15	204	21.3
Hancock.....															19	280	13.7
Harrison.....															4	77	19.3
Hawthorne.....															9	171	19.3
Hearst.....															17	401	23.6
Henry Hurant.....															14	379	27.1
Hercules Mann Intermediate.....															21	264	17.3
Irving M. Scott.....															11	179	16.3
James Lick.....															12	179	16.3
Jean Parlier.....															17	272	21.9
Jefferson.....															17	272	21.9
John Swett.....															4	50	12.3
Joaquino Serra.....															18	319	17.7
Kate Kennedy.....															19	371	19.6
Lafayette.....															15	222	18.6
Laurel.....															15	174	15.1
Le Conte.....															10	176	22.1
Lincoln.....															12	160	23.3
Lincoln.....															10	268	26.8
Madison.....															10	119	11.8
Marshall.....															14	268	21.3
McKinley.....															15	274	12.9
Mission.....															19	272	19.6
Monte.....															16	316	19.6
Monte.....															25	321	12.8
Non Valley.....															6	147	24.3
Oriental.....															13	269	17.6

Of 136 high-school teachers reporting, only 13 had had less than five years' experience; 28 had had from 20 to 30 years; and 17 had had 30 years or more. The median number of years of experience for the entire group is between 10 and 14.

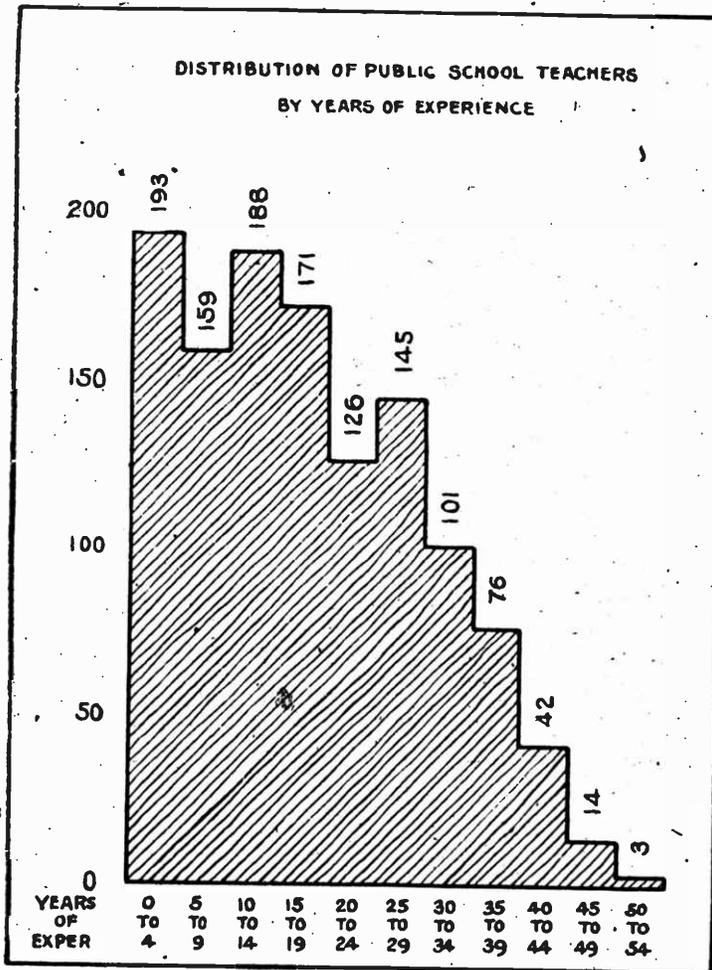


FIGURE 34.—Of 1,218 elementary and high-school teachers and principals, only 193 began teaching during the 5 years prior to July 15, 1915—an average of 38.6 teachers per year, or only 3.1 per cent of the staff. Note that 507, or 41.6 per cent, have taught 20 years or more; and of these, 236 have taught 30 years or more.

Of 1,082 elementary-school teachers reporting, only 180 had had less than five years' experience; 243 had had from 20 to 30 years; and 219 had had 30 years or more.

Of the entire number, 1,218 elementary and high-school teachers and principals, only 193 began teaching during the five years prior

to July 15, 1915—an average of 38.6 teachers per year, or 3.1 per cent of the staff. If this rate of addition of new blood were to continue, it would mean that in a very short time the San Francisco schools would be presided over by a staff of teachers and principals, most of whom have had 30 years or more of teaching experience; that is, the children would be taught by teachers who had secured their own schooling for the most part a full generation before the period represented by that in which the children are living.

That this figure is not far from the actual net annual addition of new teachers is disclosed by Table 49, which is taken from the report of the superintendent of schools for the year 1915-16.

TABLE 49.—Number of teachers leaving the system, and new appointments, San Francisco, 1911-12 to 1915-16.

Years.	Number of teachers leaving the system:				Total new appointments. ¹	Net increase.
	Resigned.	Died.	Dropped.	Total.		
1911-12.....	33	9	10	52	116	64
1912-13.....	38	9	4	51	86	35
1913-14.....	38	14	7	59	83	24
1914-15.....	38	4	4	46	107	61
1915-16.....	41	13	2	56	105	49
Total in 5 years.....	188	49	27	264	497	233
Average in 5 years.....	37.6	9.8	5.4	52.8	99.4	46.6

¹ Includes day and evening, high and elementary schools.

The number of new appointments annually for the past five years is only 99.4, or 7.4 per cent of the 1915 staff of 1,333; the net increase annually is only 46.6, or 3.5 per cent of the staff.

EDUCATION AND PROFESSIONAL PREPARATION.

The facts concerning the amount and kind of education reported by principals and teachers are summarized in Table 50.

Of 138 high-school teachers reporting, 70, or 50.7 per cent, have had less than four years of high-school study. Only 40 report attendance at normal schools. Notwithstanding the small number who are high-school graduates, 120, or 90.6 per cent, report some college or university work—the great majority four years or more.

Of 1,163 elementary-school teachers reporting, 15 have had no schooling above elementary-school; 620, or 53.3 per cent, have had less than four years of high-school study; 865, or 74.4 per cent, have had some normal school preparation (437 have had two years or more); 213, or 18.3 per cent, have attended college or universities (100 have attended four years or more).

The professional preparation of special teachers is discussed in the chapters dealing with the special subjects.

TABLE 50.—Number of public elementary and high school teachers and principals reporting specified amounts of education and average number of years for certain groups.

Names of schools.	Total number of teachers and principals reporting above elementary school.	High school.			Normal school.			College or university.			Other school.			Number reporting private instruction or evening school only.
		Less than 4 years.	Four years or over.	Less than 1 year.	One year.	Two years.	More than 2 years.	Less than 1 year.	One to 3 years.	Four years or over.	Number reporting less than 1 year.	Number reporting 1 to 3 years.	Number reporting 4 years or over.	
HIGH SCHOOLS.														
Girls' High School.....	23	11	2.7	11	4.6	2	2	6						
Lowell.....	36	18	2.6	14	4.2	1	4	3						
Mission.....	20	12	2.6	8	4.3	1	5	3						
Polytechnic.....	31	19	2.6	8	4.3	2	3	1						
Commerces.....	28	10	2.9	14	4.1	2	5	2						
Total, high schools.....	133	70	2.7	53	4.3	5	19	10	6	40	4	23	91	4.9
ELEMENTARY SCHOOLS.														
Adams Cosmopolitan.....	19	11	3	5	5.2		8	3	2	13	1		2	0.8
Alexis.....	20	12	2.6	6	4	1	3	9	2	15	1		1	
Alway Jackson.....	2	2	4	1	1	1	1	1	1	2				
Bay View.....	21	9	2.9	6	4	1	7	1	5	14	1		1	
Bernal.....	18	10	2.6	8	4	1	9	8	1	18	1		1	
Bryant Cosmopolitan.....	7	4	2.4	3	4	2	10	1	13	1			1	
Burns.....	13	4	3	2	4	2	3	2	1	6	2		1	2.5
Burns, Etna.....	15	8	3.1	5	4.2	2	3	5	2	12	1		1	
Cleveland.....	21	14	2.8	2	4	1	3	7	2	11	1		2	1.5
Columbia Cosmopolitan.....	6	4	3	1	4	2	6	4	5	15	1		1	
Columbus.....	15	9	2.9	6	4	3	2	1	1	4			1	
Cracker Intermediate.....	11	5	2.8	5	4	3	5	1	4	9			1	
Daniel Webster.....	14	10	3.1	3	4	1	4	6	10	1			1	4.5
Dannan.....	12	5	2.9	6	4	1	5	5	10	1			1	
Douglas.....	13	7	2.6	4	1	1	3	2	1	7			1	
Dudley Stone.....	17	11	3	1	4	7	3	1	11	1			1	
Edison School.....	13	7	2.6	4	1	1	2	10	1	13	1		1	
Emerson.....	15	9	3.1	4	4.3	1	7	3	1	13	1		2	6
Ethan Allen.....	4	4	3	1	4	1	3	1	3	15			1	
Everett.....	22	13	2.3	4	4	1	11	1	3	15			1	6.5

Fairmont.....	27	15	27	9	4.2	1	7	8	5	21	4	2	2.5	2	4	8	2	1	1
Farragut.....	11	27	2	2	4	1	2	2	1	7	4	2	3.5	4	4	5	5	1	1
Francis Scott Key.....	9	5	20	4	4	1	2	2	1	3	1	1	1	2	4	2	2	1	1
Frank McCoppin.....	18	10	28	4	4	1	4	5	3	13	1	1	1	2	4	2	2	2	2
Franklin.....	18	7	26	5	4	1	4	5	3	13	2	1	1	1	4	2	2	2	2
Fremont.....	17	10	29	5	5.4	2	3	6	1	11	1	1	3	6	2	2	1	1	1
Garfield.....	20	17	26	5	4.1	2	5	6	1	14	1	1	1	6	4.3	6	4	4	4
George Peabody.....	12	26	5	4	4	1	4	4	1	10	3	1	1	1	1	4	4	1	1
Glen Park.....	19	10	25	6	4	1	4	7	1	10	3	1	1	1	1	4	4	1	1
Golden Gate.....	15	9	28	5	4	1	1	7	2	14	2	1	2	1	5	3	1	2	2
Grant.....	13	3	28	7	4	1	6	5	1	11	1	1	1	1	4	3	1	2	2
Grattan.....	20	11	28	7	4	2	10	4	1	17	1	1	2.5	1	4	1	1	2	2
Highland.....	11	12	27	6	4	3	4	2	3	9	1	1	1	2	4	4	1	3	3
Hamilton Intermediate.....	15	12	27	7	4.4	1	3	5	3	11	1	4	1.0	2	4.8	9	4	3	1
Hancock.....	19	10	27	7	4.4	1	5	7	7	12	1	4	1.0	4	4.8	9	4	3	1
Harrison.....	5	3	3	1	4	1	1	1	1	1	1	1	1	1	3	2	2	2	2
Harshorn.....	11	6	28	3	4	1	3	2	2	7	1	2	1	2	4.5	4	1	1	1
Heart.....	17	12	28	3	4	1	3	2	2	13	1	1	1	1	4	1	1	1	1
Henry Durant.....	14	13	27	1	5	1	9	2	2	12	2	2	1.5	7	4.2	11	1	1	3
Horace Mann Intermediate.....	23	9	29	11	4	1	5	3	4	13	2	2	1.5	7	4.2	11	1	1	3
Irving M. Scott.....	11	3	3	4	4.3	1	3	3	1	8	1	1	1	2	4.3	4	1	1	1
James Lick.....	17	11	3	6	4	1	8	4	1	13	1	1	1	2	4.3	4	1	1	1
John Parker.....	18	1	7	3	7	4	7	4	2	13	2	1	1	2	4.3	4	1	1	1
Lee.....	9	2	3	7	4	1	7	4	2	7	2	1	1	2	4.3	4	1	1	1
John Sweet.....	20	10	27	8	4	1	6	9	3	18	2	2	2	1	4	3	1	1	3
Junipero Serra.....	19	6	29	11	4.2	1	7	8	3	18	1	1	2	2	4	3	1	1	3
Kate Kennedy.....	17	6	29	9	4	1	2	11	3	16	2	1	2	2	5.3	2	2	1	1
Lafayette.....	8	2	3	4	4	1	1	1	1	6	1	1	1	1	1	2	1	1	1
Lucas Houda.....	19	12	29	7	4	2	6	2	1	11	2	1	1	1	1	2	1	1	1
Le Conte.....	4	2	3	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lincoln.....	10	7	26	2	4	1	5	4	1	8	1	2	1	1	1	1	1	1	1
Longfellow.....	10	3	23	4	4	1	3	4	1	8	1	2	1.5	1	1	2	2	2	2
Madison.....	16	7	26	6	4	0	1	1	1	11	1	2	2.5	1	1	2	2	2	2
Marshall.....	17	7	21	5	5.4	0	3	7	2	10	1	2	2.5	1	4.6	3	3	3	3
McKinley.....	19	11	27	6	4	2	3	7	2	18	1	2	1	2	4.3	3	3	3	3
Mission.....	16	9	27	2	4	1	8	5	1	11	1	2	1	1	1	3	3	3	3
Monroe.....	25	10	28	15	4.4	2	9	1	1	20	2	2	2.5	4	4	6	1	1	1
Mountaineer.....	6	3	27	1	4	1	1	1	1	3	1	2	1.5	4	4.3	6	1	1	1
Noe Valley.....	17	4	12	27	3	4	3	7	3	11	1	4	1.0	1	4.3	3	3	3	3
Oriental.....	15	6	25	7	4.4	1	3	3	1	11	1	4	1.0	1	4.3	3	3	3	3
Pacific Heights.....	16	1	11	28	9	4	8	1	1	9	1	1	1	1	1	8	2	1	1
Parkside.....	2	1	3	10	4	1	1	1	1	2	2	1	1	1	4.5	2	1	1	1
Patrick Henry.....	11	5	27	1	4	1	1	1	1	11	2	1	1	1	1	2	1	1	1
Portola.....	21	1	1	10	4	1	1	1	1	11	1	1	1	1	1	1	1	1	1
Reading.....	13	6	25	11	4	1	1	1	1	13	1	1	1.5	1	1	2	2	2	2

TABLE 50.—Number of public elementary and high school teachers and principals reporting specified amounts of education and average number of years for certain groups—Continued.

Names of schools.	Total number of teachers and principals reporting.	High school.			Normal school.			College or university.			Other school.		Number reporting private instruction or evening school only.								
		Less than 4 years.	Average number of years.	Four years or over.	Less than 1 year.	One to 2 years.	More than 2 years.	Less than 1 year.	One to 3 years.	Four years or over.	Number reporting less than 1 year.	Number reporting 1 to 3 years or over.									
														Total number.	Average number of years.						
ELEMENTARY SCHOOLS—continued:																					
Rincon	2																				
Rochambeau	18	12	2.8	4	1	7	6														
Roosevelt	18	10	2.9	6	4.2	3	11														
Sarah B Cooper	20	10	2.9	8	4.8	7	1														
Sheridan	16	9	2.9	5	4	7	5														
Sherman	13	9	2.7	4	4.1	4	3														
Sherry Valley	19	10	3	7	4	6	13														
Sherry	9	5	2.6	3	4	1	4														
Sunny Side	7	2	3.3	4	4	5	2														
Sutro	18	8	3	6	4	2	8*														
Ungraded Primary	4			1		1	1														
Visitation Valley	16	4	3	4	1	3	3														
Washington	19	13	2.2	5	4	3	2														
Washington Grammar	13	8	2.1	2	4	3	3														
Washington Irving	9	6	2.8	1	4	2	4														
Winfield Scott	9	6	2.8	1	4	2	4														
Yerba Buena	13	11	3	1	4	5	4														
Total in elementary schools	1,163	15	620	2.8	382	4.1	52	375	335	102	965	50	63	1.7	100	4.6	213	40	67	13	3
SPECIAL TEACHERS.																					
Manual training	16	1	6	2.8	8	4.3		2	3	5	10	2	1	3.3	1	5.1	4				
Drawing	4	2	2	2	4.5																
Recreation	7	1	1	6	4.2																
Music	3	1	1	3	1																
Total, special teachers	32	1	9	2.4	19	4.2		3	5	6	11	2	6	1.8	7	4.7	15				
Grand total	1,333	17	699	2.8	431	4.1	57	398	350	111	919	56	91	1.9	108	4.7	318	46	67	13	4

In Table 50 many teachers are counted more than once. In Table 51, however, duplications are eliminated. From this table it appears that, of 1,333 teachers reporting, 111 have had no schooling beyond high school; of the remainder, 338 have had no other schooling except one year or less of normal school; 9 have had only one year or less of college or university; 12 have had only one year or less of other schooling (business college, etc.).

TABLE 51.—Number of teachers having only minimum amounts of professional preparation.

Preparation reported.	Number of teachers who have had only specified amounts of preparation.			Total.
	Elementary-school teachers.	High-school teachers.	Special teachers.	
None beyond elementary school.....	15	1	1	17
None beyond high school.....	108	2	1	111
None beyond high school, except 1 year or less of normal school.....	337	1		338
None beyond high school, except 1 year or less of college or university.....	6	2	1	9
None beyond high school except 1 year or less of other school (business college, etc.).....	8	4		12
Total number of teachers in classes enumerated above.....	474	10	3	487
Total number of teachers reporting.....	1,163	138	33	1,333

SALARIES.

The distribution of salaries of teachers and principals, compiled from the latest report of the board of education available (school year 1914-15), is shown in Table 52.

TABLE 52.—Number of elementary and high-school teachers and principals receiving specified salaries in 1914-15.

Annual salary.	High schools.		Elementary schools.		Total.
	Principals.	Teachers.	Principals.	Teachers.	
\$3,600.....	1				1
3,300.....	1				1
3,000.....	1				1
2,400.....	3				3
2,340.....			6		6
2,240.....			14		14
2,160.....			2		2
2,040.....		4	16		20
1,800.....		24			24
1,680.....			22		22
1,620.....		52	2	1	55
1,560.....		14	1	21	36
1,500.....			10		10
1,464.....		24		8	32
1,440.....				2	2
1,404.....			1		1
1,340.....		1		4	5
1,300.....				2	2
1,344.....			1		1
1,320.....				2	2
1,300.....				7	7
1,284.....				2	2
1,260.....				12	12
1,224.....				13	13
				267	267

TABLE 52.—Number of elementary and high-school teachers and principals receiving specified salaries in 1914-15—Continued.

Annual salary.	High schools.		Elementary schools.		Total.
	Principals.	Teachers.	Principals.	Teachers.	
\$1,200.....		6		107	113
1,144.....				217	217
1,152.....				5	5
1,140.....				5	5
1,104.....				5	5
1,092.....				6	6
1,080.....				24	24
1,054.....				18	18
1,032.....				15	15
1,020.....				18	18
1,018.....				30	30
1,004.....				1	1
994.....				1	1
984.....				11	11
966.....				1	1
960.....				42	42
924.....				13	13
900.....				19	19
840.....		1		135	136
750.....		1			1
Total.....	5	128	83	1,032	1,248

Of the 128 high-school teachers reported, 114, or 89 per cent, received salaries of \$1,500 to \$2,040,

Of the 83 elementary-school principals reported, 60, or 72.2 per cent, received salaries of \$1,800 or over; only 10 received salaries of less than \$1,560.

Of the 1,032 elementary-school teachers reported, 611, or 59.2 per cent, received salaries of \$1,164 to \$1,224; 209, or 20.2 per cent, received salaries of \$960 or less; 30, or 2.8 per cent, received salaries of \$1,500 or over.

The median salary for high-school teachers was \$1,680; the median salary for elementary-school principals was \$1,800; the median salary for the 1,248 teachers and principals reported was \$1,200.

The average salary of elementary-school teachers in San Francisco increased from \$926 in 1903-4 to \$1,124 in 1912-13, an increase of 21 per cent. Table 53 shows the corresponding facts for six other cities of the same population class.

TABLE 53.—Increases in average salaries of elementary-school teachers between 1903-4 and 1912-13, in 7 cities.

Cities.	Average salary in 1903-4.	Average salary in 1912-13.	Per cent of increase.
San Francisco.....	\$926	\$1,124	21
Cincinnati.....	726	949	31
Minneapolis.....	699	937	34
Newark, N. J.....	711	917	29
Milwaukee.....	632	876	39
Washington.....	637	898	25
New Orleans.....	470	655	37

Bu. of Educ. Bul., 1915, No. 31, p. 110.

In 1912-13 elementary-school teachers in San Francisco were paid good salaries in comparison with teachers' salaries in other cities.

Comparing the earnings of teachers with earnings in other occupations however, the value and importance of the service rendered do not appear to be reflected in salaries. Table 54 shows for six cities the average yearly salaries of elementary-school teachers compared with earnings of workmen in building trades in 1913. Actual earnings of workmen are compared with annual salaries of teachers, which are subject to reduction for sickness, absence, and other causes. "Few cities pay teachers as much as they do the workers who build the schoolhouses in which the teachers carry on their duties."¹

TABLE 54.—Average annual salaries of elementary-school teachers compared with annual earnings of workmen in building trades, in 6 cities, 1913.²

	San Francisco.	Denver.	Baltimore.	Minneapolis.	Cleveland.	Seattle.
Plumbers.....	\$1,540	\$1,054	\$1,101	\$1,044	\$1,219	\$1,617
Bricklayers.....	1,390	1,053	1,057	1,197	1,192	1,174
Plasterers.....	1,379	1,082	1,161	1,201	1,132	1,259
Molders.....	1,120	967	944	927	945	.....
Teachers.....	1,124	892	892	937	791	1,021
Painters.....	1,081	779	767	821	1,013	975
Carpenters.....	944	960	908	1,030	992	948
Machinists.....	944	1,023	824	958	875	896

¹ Bu. of Edu. Bul., 1915, No. 31, p. 14.

² Salaries for workmen are actual earnings. (Bureau of Railway Economics: "Earnings and cost of living of skilled workmen in the East and in the West"; Washington, D. C., 1914, Exhibit No. 39.)

Chapter III.

ORGANIZATION AND ADMINISTRATION.

The city of San Francisco and the county of San Francisco are coterminous. The same persons constitute the population of both. Under the school code of the State of California, San Francisco is a city and county school district and is organized as such.

As citizens of the county the qualified voters of the district, as provided by the constitution of the State, elect quadrennially a superintendent of schools, who, under the State school code, appoints such deputy superintendents of schools as may be authorized under the law. Under the provision of the charter of the city and county of San Francisco the county superintendent of schools elected by the people, and the deputy superintendents appointed by the superintendent, become the superintendent and deputy superintendents of schools of the city. The charter of the city and county of San Francisco places the schools of the district under the control and management of a board of education of five members, four members appointed by the mayor of the city and county, and the county superintendent of schools, who, by virtue of his office as county superintendent, is a member of the city board on equal footing with the appointive members.

Out of the complications, uncertainties, and lack of proper subordinations of this dual organization and control come, directly or indirectly, many—perhaps most—of such evils as may exist in the public-school system of San Francisco. These evils can not be eradicated, and there is scant probability that they will be permanently lessened to any considerable degree until the dual organization and control has been abolished by amendment to the State constitution and the city charter.

INTERNAL ORGANIZATION OF THE BOARD OF EDUCATION.

The internal organization of the board is not unlike that of boards of education in other cities. It has a president, a vice president, and a secretary; the treasurer of the city and county of San Francisco and the proper accounting and auditing officials of the city and county and the city and county attorney are in effect, by implication of the charter, ex officio officers of the board. The internal organization consists not only of the above-named group of officers, but also of

certain standing committees appointed by the president, such as committee on schools, committee on supplies, committee on finance. In addition to these there are certain special committees appointed from time to time, and other standing committees may be created.

Since the board of education follows the method of transacting its business largely through its committees, these committees have come to fill a very important place in the conduct of the schools. It appears also that the chairmen of the several committees have unusual powers, since they can transact business directly with superintendents, principals, and teachers in the schools, or take the initiative in recommending appointments quite independent of the superintendent of schools. For example, under the board's rules, the chairman of the committee on supplies approves requisitions for supplies without reference to the superintendent of schools. The chairman of the committee on schools appears to have quite as much to do with the direction and management of the educational affairs of the schools as the superintendent himself. This last described situation has quite certainly come about through the fact that the superintendent himself is, by virtue of his office, a member of the board of education, and the further fact of his being assigned to membership on the committee on schools. But he is not the chairman of this committee.

This position of the superintendent as a committee member tends to destroy his function as an independent executive officer of the board and creates an unnatural relation between the board and the superintendent of schools, who should be the board's executive officer. The proper relation between the superintendent and the board of education is made impossible by the fact that the superintendent of schools is elected by the people as county superintendent and not by the board as city superintendent; and this impossibility was confirmed when the superintendent of schools was made a member of the board by charter provision. The very nature of a superintendent's work argues against the policy of establishing such relationship. It is quite apparent that this experiment, unique in city school administration in the United States, has in practice proven itself an unwise departure from the prevailing custom.

HOW THE BOARD TRANSACTS ITS BUSINESS.

The board of education, as already stated, transacts its business largely through its committees, each committee having the right to take the initiative in any matter which may come directly before it, and to make recommendations thereon to the board for its immediate action without such matter having been previously presented to the board. The reverse of this procedure is, of course, often followed. But even then in the great majority of cases the practice seems to be

to refer questions coming directly to the board to the proper committees for their consideration and report before action is taken. The board is therefore a committee-working board.

It seems that the board does not follow the practice of printing the transactions of its meetings so as to make the records of its official acts available for distribution to its officers and the heads of departments, who ought to be furnished with such information. Since the board of necessity not only transacts the routine business of the schools of the city but officially approves and declares from time to time certain general and specific policies which affect vitally the work of the schools, its official proceedings should be printed for the use of all officers and heads of departments of the school system and for the information of the public. At the end of the school year bound copies of these proceedings should be furnished to board members and school officials, to be kept on file for reference.

MEMBERS OF BOARD PAID.

The appointive members of the board are named by the mayor for a term of four years, and each such member is paid a salary of \$3,000 per year. The ex officio member of the board (the county superintendent of schools) draws no salary for his services as a board member other than that which he receives as superintendent of schools, which is \$4,000 a year.

It seems quite certain that San Francisco pays the members of its board of education a salary, in opposition to the practice of all other American cities, because the charter clearly intends that this board shall be considered not only as the people's agency for the general administration and management of the schools, as in other cities, but also as a body of technical experts for the performance of many duties which in other cities are assigned to superintendents of schools and other school executives. Being paid a salary, the members of the board are required to give their full time to the duties of their offices. Probably this unusual provision of the charter was inserted as a vague protest against the fact that the board of education has no power of control under the State constitution and the State school laws of California over the selection of the superintendent of schools and his deputies.

SOME EVILS OF THE DUAL FORM OF CONTROL.

No matter how the present unfortunate method of school control in San Francisco came about, the plan as it works out in practice is unsatisfactory in the extreme. Proper relations between the superintendent of schools and his staff of deputies on the one hand and the board of education on the other hand is impossible. They can hardly perform their official administrative acts without complication and misunderstanding, and without at times running counter to

each other in the exercise of their authority. The proper official subordination of the superintendent of schools and his deputies, and through them the proper relation of all the educational forces of the board of education as a central body of control, can not be established. Because of the dual system of administration which has unavoidably arisen out of constitutional and charter provisions, the entire supervisory force and teaching staff are constantly in uncertainty as to whether they should regard the superintendent and his deputies or the board of education and its committees as their immediate official superiors. This situation has affected the supervising and teaching forces and the entire community as well. It is largely responsible for the "unrest" both inside and outside of the school system. San Francisco can not reasonably hope that its schools will do the work desired of them until the method of school board control has been changed:

The board is nonpartisan, or more strictly speaking, bipartisan. The charter requires that "the board shall never be so constituted as to contain more than two members of the same political party." This provision, which of course has reference to the four appointive members of the board, is wise, and the principle should be retained in any revision of law or charter in regard to the constitution and functions of the board.

While the board of education of San Francisco has most of the powers usually granted boards of education, and while it performs many unusual functions, its powers are unfortunately limited in two important respects:

1. The board of education can not levy taxes for the support of the schools. The power to levy taxes is delegated to the board of supervisors of the city and county of San Francisco, to which the board of education submits in the month of April of each year an estimate of its needs for the ensuing fiscal year.

2. The board of education can not construct or repair schoolhouses. This power is delegated to the board of public works, which, like the board of supervisors, is a coordinate branch of the city government.

This means, of course, that the board of education of San Francisco is not an independent body. It has neither full and final power, nor full and final responsibility in the management and control of the public school system and of its business and educational affairs. The board of supervisors, having full power under the charter to revise the estimates of the board of education before setting the school levy, may or may not grant the amounts contained in the estimate. The board of public works may or may not see fit to carry out the plans of the board of education for the erection and repair of buildings. In either case the power of the board of education to carry out its plans for the extension of the school system and for the improvement of its efficiency depends on the action of an independent

coordinate body over which the board of education has no control. The board of education, therefore, is unable to formulate any definite policy of education with the certainty of being able to put it into operation; and as a consequence it can not be held responsible for the sufficiency or efficiency of the school system.

A study of the school system in all parts of the country shows that, for efficiency of administration and for the promotion of all the best interests of the schools, boards of education should be given full control over the educational, business, and financial affairs of the school system. In other words, boards of education should be independent of all other branches of the city government; and this should be the case in San Francisco. The board of education of San Francisco ought to have, through its proper officers, full control and management not only of all its educational activities but of its business and financial affairs as well; it should not only make its own budget, but it should have power to make the school levy; it should not only select and purchase school sites but, under the guidance of its proper technical experts, it should plan and construct schoolhouses and make all necessary repairs to the school plant. In other words, the board of education should be given full power to control and manage, through its proper officers, every detail connected with the management of the public school system. This will tend not only to give the board of education power—it will tend also to give it dignity in the sight of the people. Finally, such a plan will make it possible for the people to fix responsibility for efficiency or inefficiency in the conduct and management of their school affairs.

PRACTICE IN OTHER CITIES.

As already stated, each of the appointive members of the board of education of San Francisco receives a salary of \$3,000 a year, which is contrary to the prevailing practice in the cities of the United States, as is clearly shown in Table 55, which includes a majority of all the larger cities of the country:

TABLE 55.—Practice of cities in regard to paying members of boards of education.¹

Name of city	Population (census 1910).	Board of education paid or unpaid.
New York.....	4,766,883	Unpaid.
Chicago.....	2,183,253	Do.
Philadelphia.....	1,549,076	Do.
St. Louis.....	687,029	Do.
Boston.....	670,543	Do.
Cleveland.....	500,663	Do.
Baltimore.....	558,485	Do.
Pittsburgh.....	533,905	Do.
Detroit.....	468,766	Do.
Buffalo.....	428,715	Do.
San Francisco.....	416,912	Paid \$3,000 per year.

¹ Adapted from "A Study of the Salary Schedule of City School Systems," Research Bureau, Public Education Association, Buffalo, N. Y., 1916.

TABLE 55.—Practice of cities in regard to paying members of boards of education—Con.

Name of city.	Population (census 1910).	Board of education paid or unpaid.
Milwaukee.....	373,657	Paid \$3 each meeting; limit, \$100 per year.
Cincinnati.....	363,591	Unpaid.
Newark.....	347,406	Do.
New Orleans.....	339,075	Do.
Washington.....	331,090	Do.
Los Angeles.....	319,198	Paid \$10 each meeting; limit, \$50 per month.
Minneapolis.....	301,606	Unpaid.
Jersey City.....	297,779	Do.
Kansas City.....	264,381	Do.
Seattle.....	237,194	Do.
Indianapolis.....	233,650	Do.
Providence.....	224,326	Do.
Louisville.....	223,028	Do.
Rochester.....	218,169	Salary \$1,200 per year.
Denver.....	213,381	Unpaid.
Portland, Oreg.....	207,214	Do.
Columbus.....	181,411	Do.
Toledo.....	164,697	Do.
Oakland.....	150,174	Paid \$10 per meeting; limit, \$40 per month.
Birmingham.....	132,668	Unpaid.
Memphis.....	131,103	Paid \$480 per year; president \$600 per year.
Omaha.....	124,006	Unpaid.
Dayton.....	116,377	Do.
Nashville.....	110,364	Do.
Lowell.....	106,284	Do.
Spoane.....	104,672	Do.
Trenton.....	96,815	Do.
San Antonio.....	96,614	Do.
Reading.....	96,071	Do.
Salt Lake City.....	92,177	Paid \$100 per year.
Dallas.....	89,104	Unpaid.
Lynn.....	89,336	Do.
Des Moines.....	86,368	Do.
Lawrence.....	85,662	Do.
Kansas City, Kans.....	82,331	Do.

In the above-named 46 American cities there are 39 unpaid and 7 paid boards of education. San Francisco pays the members of its board of education each \$3,000 per year; Milwaukee pays \$3 for each meeting, with a limit of \$100 a year; Los Angeles pays \$10 for each meeting, with a limit of \$50 per month; Oakland pays \$10 for each meeting, with a limit of \$40 per month; Salt Lake City pays \$100 per year; Rochester, N. Y., pays \$1,200 per year; and Memphis, Tenn., pays \$480 to each member and \$600 to the president of the board.

The pay of board members in each of these seven cities, with the exception of San Francisco, is evidently only nominal. The prevailing custom and weight of public opinion are overwhelmingly against the policy of paying real salaries to members of boards of education; nor do they favor the paying of nominal salaries or fees for attending meetings. San Francisco, however, construes its pay as a fixed salary, and in consequence requires that its board members give their entire time to the duties of their office.

FUNCTION OF THE BOARD OF EDUCATION.

From the preceding discussion it may be clearly seen that the complex administrative situation as it has developed in San Francisco, and all its attendant evils, are due in the first place to the fact that it has not been possible properly to harmonize the provisions of the State constitution, the State school code, and the charter so as to produce a plan of unit control whereby the full direction and management of the schools might be centralized in the hands of the board of public education with full power and responsibility as the representatives of the people; and in the second place to a failure on the part of those who framed the city charter to understand the proper functions of a board of education. But for these difficulties and this misconception the schools of San Francisco would most probably now be working under a plan of unit control similar to that in vogue in the leading cities and would have an unpaid board with the powers enumerated on page 120 of this report.

STEPS NECESSARY TO EFFECT UNIFIED, RESPONSIBLE CONTROL.

To make such a plan possible it will be necessary—

(1) To amend the constitution of the State so as to relieve the county of San Francisco of the obligation to elect a county superintendent of schools.

(2) To amend the charter of San Francisco in such a way as to provide for the creation of a board of education whose members shall serve without pay; which shall be independent of all other branches of the city government; shall have power to appoint the superintendent of schools and to confirm or reject the superintendent's nominations of all deputy or assistant superintendents, directors of special departments, supervisors, principals, teachers, and such other officers and employees as may be provided by charter or by action of the board; and shall have full control and management, through its superintendent of schools and his assistants, of all matters relating to public-school affairs of the city, whether in the educational, the business, or the financial departments of the school system.

(3) To amend the charter so as to establish beyond question the proper relation between the board of education and the superintendent of schools as its technical expert and executive and of the board's employees under him.

After the amendment of the constitution the revision of the charter is the one vital question upon which the best thought of those interested in the improvement of the schools of San Francisco should be centered. They should make sure that the revision is based upon those principles which have come to be accepted as fundamental to good school administration. Otherwise the result must be disappointing.

PRINCIPLES OF SCHOOL ORGANIZATION AND MANAGEMENT.

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

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

PRINCIPLES OF ADMINISTRATION TO GOVERN CORPORATIONS.

*Manufacturing Corporation Employing
1,500 People.*

I.

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

II.

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

*School Corporation Employing 1,500
People.*

I.

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

II.

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

III.

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

IV.

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

The plans will show—

- The number of assistant managers.
- The duties of assistant managers.
- Special departmental heads.
- Specialists in technical processes.
- The foremen to be employed.
- The number and types of workmen.
- The duties to be assigned to each.
- The series of processes to be performed.

Buildings needed, and the building plans demanded by the work and the exact building equipment for the work.

The machinery and other equipment that will exactly serve for the best type of work.

V.

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

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

III.

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

IV.

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

The plans will show—

- The number of assistant superintendents.
- The duties of assistant superintendents.
- Special departmental heads.
- Special supervisors.
- The principals to be employed.
- The number and types of teachers, engineers, etc.

The duties to be assigned to each. Courses of study and methods of procedure.

Buildings needed, and the building plans demanded by the work, and the exact building equipment for the work.

The text-books, library, and supplementary books, supplies, shop equipment, furniture, etc., that will exactly serve for the best type of work.

V.

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

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

VI.

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

VI.

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

VII.

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

The board of directors does not pass on these nominations. It is a principle of business management that responsibility is actually placed upon general manager and department heads only in so far as they are given full control over all the means to be employed in doing the work. The qualifications of foremen and workmen constitute one of the most important of the means that is to be placed under the full control of the overhead management, as they are commissioned to get results. Neither the stockholders nor the board of directors care who does the work. Simply they want it done, and done well. It is not a principle of business management for the board of directors to approve the names of the individual workmen who are to be employed. They do not consider even the possibility of a veto.

VII.

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

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

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

VIII.

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

IX.

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

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

X.

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

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

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

When the board finds shortcomings revealed in the reports, they will demand explanations that explain. If satisfac-

VIII.

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

IX.

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

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

X.

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

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

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

When the board finds shortcomings revealed in the reports, they will demand explanations that explain. If satisfac-

tory, they ask for recommendations from their general manager as to changes needed in general policy or in the details of policy. They will grant what is needed if it promises remedy; they will back up his labors as fully as they can, and then they will stand aside and let him bear the responsibility for results.

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

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

XI.

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

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

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

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

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

If, after the wishes of the stockholders are made known to the board, the latter continue negligent or derelict, or if their failure to serve the best interests of the stockholders has been serious, they will be promptly relieved of their stewardship and more faithful representatives placed

tory, they ask for recommendations from their superintendent as to changes needed in general policy or in the details of policy. They will grant what is needed if it promises remedy; they will back up his labors as fully as they can, and then they will stand aside and let him bear the responsibility for results.

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

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

XI.

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

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

This practice is not universal yet in community supervision of their boards of school directors. It is not even common. But it is growing in extent and frequency, and is recognized as a necessary principle of sound management when the management is intended efficiently to serve the interests of the citizens.

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

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

If, after the wishes of the citizens are made known to the board, the latter continue negligent or derelict, or if their failure to serve the best interests of the citizens has been serious, they will

in their stead. The policy of the stockholders must be to relieve only those who prove negligent or unfaithful. They must not dispense with experience of the right sort. But unfaithful directors will be relieved of their responsibilities.

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

promptly be relieved of their stewardship and more faithful representatives placed in their stead. The policy of the citizens must be to relieve only those who prove negligent or unfaithful. They must not dispense with experience of the right sort. But unfaithful directors will be relieved of their responsibilities.

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

This statement by Dr. Bobbitt will prove a safe guide to the people of San Francisco in any revision which they may undertake to make of that section of the charter relating to the public schools.

ATTITUDE OF THE NATIONAL EDUCATION ASSOCIATION.

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

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

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

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

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

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

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

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

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

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

Public business suffers when these technical matters are improperly handled. Let us assume two cases. In the first case the superintendent may be inefficient, and the board or some other active agency may cover over his inefficiency for a time by doing his work for him. The result will be disastrous in the end. It would be better for public business to bring the inefficiency to the surface as quickly as possible and remove the officer who can not conduct the system properly. In the second case the superintendent is efficient, but is hampered by lack of definition of his functions. The school system will lack in unity of organization and in harmony of internal operation. The system will be defective in so far as it is divided against itself.

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

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

This argument in support of the underlying principles of proper school control is so convincing that no further argument or elaboration of principles is needed here. It is clearly evident that the best thought is rapidly crystallizing in favor of the application of these principles to the management of city school systems. Practice is following thought.

There can be no doubt of the desire of the people of San Francisco for improvement in the control and conduct of their schools. The members of the board of education, the superintendent of schools and his deputies, members of the teaching staff, and a large group of both professional and business men and women and a great body of

live, wide-awake citizens are eager for the change. The school authorities frankly admit that under present conditions it is next to impossible to conduct the schools successfully and happily. No doubt the majority of the people will welcome such thoroughgoing reform as will be necessary for the full application of the best and sanest methods of business management. All must realize, however, that no very valuable reforms can be brought about until San Francisco is relieved of the present handicap of dual control and divided authority produced by the conflicting laws under which the school system has been organized.

THE SUPERINTENDENT AND HIS STAFF.

The teaching staff of San Francisco, including the superintendent of schools, the deputy superintendents of schools, the supervisors and directors of special work, and the principals and teachers in the day and evening schools, numbers between 1,400 and 1,500. The following outline shows the general plan of organization:

SUPERINTENDENT OF SCHOOLS.

Deputy Superintendents of Schools.

Supervisors or Directors of Special Subjects.

Supervisor of Drawing.

Supervisor of Music.

Supervisor of Home Economics.

Supervisor of Manual Training.

Supervisor of Primary Grades.

Director of Physical Education, Athletics, Social and Lecture Centers.

Principals and Teachers.

Principals of Day High Schools.

Vice Principals.

Heads of Departments.

High School Teachers.

Principals of Evening High Schools.

Heads of Technical and Commercial Departments.

Evening High School Teachers.

Principals of Day Elementary Schools.

Vice Principals or Yard Assistants.

Grade Teachers.

Kindergarten Teachers.

Teachers Manual Training Centers.

Teachers Home Economic Centers.

Teachers Modern Language Centers.

Principals of Evening Elementary Schools.

Heads of Departments of Special Branches.

Teachers of Evening Elementary Schools.

Principals (or Head Teachers) of Special Schools.

Teachers of Special Schools.

THE SUPERINTENDENT OF SCHOOLS.

As already stated, the superintendent of schools is a constitutional officer who is elected to his position by the qualified voters of the city and county of San Francisco for a term of four years, the election taking place at the time of the election of the governor, whose term of office is also four years. The superintendent of schools is

required to perform certain duties imposed upon him by the general statutes of the State and, in addition thereto, other duties imposed by the charter. Among the latter duties the superintendent of schools is required to enforce the rules and regulations of the board of education; to submit an annual report to the board, together with such recommendations as he deems proper; to visit and examine, with the assistance of his deputies, all the schools of the city at least twice a year, with a view to determining their standing and classification; to recommend rules for the promotion, transfer, and graduation of pupils; to recommend courses of study, textbooks, and supplemental books; and to recommend the purchase of such apparatus, books, and classroom supplies as may be required in connection with the work of instruction; to report to the board monthly upon the standing of the schools examined by him and his deputies; to examine, in conjunction with his deputies (who, together with the superintendent, constitute a city board of examination), all applicants for positions in the public schools; to recommend the issuance of certificates to those persons who successfully pass such examination; and to recommend the revocation of such certificates should occasion arise under the law.

• While the superintendent of schools, under the law, has full power to appoint his deputies, he has no power in the selection of others of the supervising and teaching staff except the right to vote upon their approval or rejection when he is performing his function as a member of the board of education. In practice, supervisors, directors, and principals are, as a rule, appointed directly by the board, without recommendation from the superintendent of schools. This is not in accord with the best principles of school administration. If a school system is to be properly administered by the superintendent of schools, the superintendent must have authority to take the initiative in recommending not only the members of his immediate staff, but also all supervisors, principals, and teachers whose work he is to direct. No appointments should be made to any of these positions except on his written recommendation. In spite of the fact, however, that supervisors, principals, and teachers are elected without the written recommendation of the superintendent, San Francisco is at the present safeguarded against the appointment of incompetent teachers through the pressure of social, political, and other influences. This is effected by a rule of the board of education that requires all appointments, except in certain departments, to be made in the order of standing from proper eligible lists which the superintendent of schools and his board of examiners have established under the rules of the board. The method of setting up these lists is similar to that in vogue in other American cities. The operation of the plan as administered in San Francisco appears to be satisfactory in every way.

ANNUAL REPORTS OF THE SUPERINTENDENT.

At the time of the visit of the survey commission the annual report of the superintendent of schools had not been issued in printed form since 1913. At the request of the commission the superintendent submitted typewritten copies of his reports for the years 1913-14, 1914-15, and 1915-16. The latest of these reports, a document of approximately 200 pages, included a synopsis of recommendations made by the superintendent since January, 1913, many of which coincide with the recommendations of the survey commission.

DEPUTY SUPERINTENDENTS OF SCHOOLS.

Deputy superintendents of schools are appointed to office for a period of four years without confirmation by the board of education.

There are at present five deputy superintendents. By charter provision one additional deputy may be appointed for each additional 8,000 children in average daily attendance over and above the base attendance of 45,000.

The charter provides that a deputy superintendent of schools shall have had at least 10 years of successful experience in teaching and that he shall have been a resident of the city and county of San Francisco at least five years preceding his appointment to office. The requirement as to experience is a very proper and wise one, but the requirement as to residence is unfortunate in that it limits the selection of deputy superintendents to the local field. It is doubtless well to promote worthy principals to the position of deputy superintendent frequently enough to make this goal serve as a stimulus to good work; yet it is well to bring in occasionally for this position men and women from other cities, and possibly from other educational positions than that of principal. This policy may bring new ideas and new ideals and new life for the school system at the same time. And it may happen also that at the time when a deputy superintendent is to be appointed there may be no principal in the schools of the city with qualifications needed for the office. To aid him in securing results, the superintendent of schools must have on his staff able assistants; but he needs more than this—he needs in these most important positions of leadership men and women not only of ripe scholarship, superior personality, and high qualifications of leadership, but also of successful technical experience in the particular line of work which they may be called upon to do. If there are in the local system men and women in whom these qualifications are combined, they should be given the preference; if not, then for the good of the schools appointments should be made from outside of the city. The charter of San Francisco should be amended as to permit this policy.

It is the duty of deputy superintendents to assist the superintendent in the administration of the public-school system, and at the same time to act as general supervisors of the work of instruction throughout the city. They visit schools and inspect classroom work; they make suggestions to principals and teachers for the improvement of school management and classroom instruction; hold teachers' meetings and perform such other duties as may be assigned them by the superintendent of schools. At the beginning of the school year the superintendent assigns to each deputy a certain number of schools over which he is to have administrative and supervisory charge for that year. These schools are, it appears, not grouped into districts, but are scattered throughout the city. It seems quite certain that the time of deputy superintendents may be better conserved and that they might do their work with greater economy of energy if the city were divided into subdivisions in such a way that it would be comparatively easy to go from one building to another in any district, and a deputy superintendent assigned to each district.

In addition to the above duties each deputy superintendent might well have assigned to him the additional duty of supervising certain teachers of special work carried on in the schools. For this work of special supervision one deputy superintendent might be assigned to visit and inspect evening schools, another to visit and inspect high schools, and still another to have charge of other work. This special supervision of the deputy superintendent is, however, but incidental to the general administrative and supervisory duties outlined above.

Recommendations for a closer and more definite organization of the work of deputy superintendents will be offered later.

SUPERVISORS OF SPECIAL SUBJECTS.

Supervisors of special work are appointed by the board of education without recommendation of the superintendent of schools; and further, most, if not all, of the heads of departments look directly to the board of education or the chairmen of its committees as the source from which they should receive official instruction and direction. In practice, it has developed that the supervisors, broadly speaking, do not feel responsible to the superintendent and his deputies, and, what is not less unfortunate, many of the principals and teachers in the schools do not consider themselves as officially responsible to the supervisors. As a result, the directions of the supervisors are, in many cases, not carried out in the schools. This unfortunate situation can be remedied by statutory or charter amendment or by the adoption of a rule by the board of education placing the heads of these departments wholly under the official control of the superintendent of schools, and at the same time giving

the superintendent and all his deputies full power to require work of proper standards from all supervisors, principals, and teachers.

At the present time San Francisco has five supervisors of special work and one director of special activities, classified as follows: One supervisor of drawing, one supervisor of music, one supervisor of home economics, one supervisor of manual training, one supervisor of primary grades, and one director of the following activities: physical education, athletics, and all social-center, community-center, and lecture-center work. The supervisors neither have the aid of assistants in their departments, nor have they clerical help. Their field is so large and their work so important that these supervisors should have both clerical help and the help of assistant supervisors.

The director of physical training and of the social-center, community-center, and lecture-center activities gives only part of his time to the board of education, the other portion of it being given to the city government as its director of city playgrounds and recreational activities. This division of labor between the city and the school district serves but to call attention to the fact that all playground work and all recreational activity under public auspices in the city are educational in their intent and purpose, and should, therefore, be under the full control of the board of education.

PRINCIPALS OF SCHOOLS.

Principals of schools are appointed by the board of education without recommendation from the superintendent. However, under the rules of the board they are required to report both to the board of education and to the superintendent. They are held responsible as the administrative heads of their respective schools and are required to instruct all their teachers in all matters pertaining to the discipline and instruction of the children under their charge. San Francisco employs the following classes of principals in its public schools: Day high-school principals, evening high-school principals, day elementary-school principals, evening elementary-school principals, and special-school principals. In the high schools and in the larger of the elementary schools there are vice principals. In the elementary schools the vice principals are also called "yard assistants."

TEACHERS.

Teachers in the public schools are appointed to positions in most departments from eligible lists established under the rules of the board of education. A rule of the board stipulates that all appointments and promotions shall be made upon merit.

EXAMINATION AND CERTIFICATION OF TEACHERS.

Under the charter the superintendent and his deputies constitute a board of examiners whose duty it is to examine all applicants for certificates and prescribe a standard of proficiency which will entitle

the person examined to receive a proper certificate in any one of the following-named classes:

- a) High-school certificate, valid for six years, which shall authorize the holder, if appointed to a position, to teach in any primary, grammar, or high-school grade in San Francisco.
- b) Grammar grade city certificate, valid for six years, which shall authorize the holder, if appointed to a position, to teach in any primary or grammar school in San Francisco.
- c) Primary grade city certificate, valid for two years, which shall authorize the holder, if appointed to a position, to teach in any primary school (that is, in any school composed of pupils classified in the first, second, third, or fourth year grades of the public schools) in San Francisco.
- d) Special certificate, valid for a period not to exceed six years, authorizing the holder, if appointed to a position in San Francisco, to teach the special subject named in the certificate.

Eligible lists are set up by the board of education through the means of a competitive civil-service examination. It is provided that this examination shall be both written and oral upon the theory and practice of teaching and such other topics as may from time to time be announced by the board. No one is permitted to enter the examination who does not first show a certificate from a physician appointed by the board stating that the applicant is in both mental and physical good health. It is also stipulated that every applicant must be the holder of a teacher's certificate of a grade not lower than the grammar grade certificate valid under the laws of the State of California. Each applicant passing the examination is entitled to have his name placed on the proper eligible list in the order of his standing, and is held subject to appointment to a regular position in the same order, but final election to a regular position in the schools can not be made until after satisfactory probationary service of two years.

The setting up of eligible lists from which appointments shall be made is not an absolute requirement in all departments of the schools. For purposes of flexibility (and due no doubt also to the nature of the work and the limit in the supply of teachers) some of the departments have not yet been placed under the eligible list rules.

The teachers in the several departments of the public schools of San Francisco are classified as follows: Day high-school teachers; evening high-school teachers; day elementary-school teachers, comprising the following groups: grade, kindergarten, manual-training, home-economics, modern-language teachers, and teachers of other special subjects; evening elementary-school teachers; and teachers of special schools, including open-air schools, schools for the deaf, schools for tubercular children, and corrective schools. It should be noted also in this connection that San Francisco follows the plan of establishing heads of departments in its public day high schools, and maintains heads of departments of technical and commercial branches in its evening schools.

RAISING THE STANDARDS OF THE SERVICE.

The survey committee believes that in the appointment of teachers to positions in the schools of San Francisco the board of education and the superintendent of schools are united in an effort to secure the best teaching service available. Evidence of this is found in the raising, from time to time, of the requirements set for new appointments and in the further extension of the civil-service list. Through this control at the point of intake, the character of the teaching staff is strengthened. There still remains, however, the necessity for the further improvement of the quality of the teaching service through the elimination of those teachers who, for any cause, are not rendering efficient service and can not be made to do so. To remove such teachers from the service is not a pleasant duty; yet it is a duty that should be performed kindly and firmly and without fail. The schools exist for the service of the children and the community and not for the support of teachers. While in the service teachers should be helped and encouraged in every way possible to do their best work and to do it happily and joyously. When they no longer can or will work in such a way as to make the schools perform fully their proper functions to the children and the community, they should be removed and their places filled by those who both can and will. The board of education should have power to remove from service any incompetent teacher on the recommendation of the superintendent of schools and without a hearing. For the purpose of such action and as a protection to the board and the superintendent, accurate records of the efficiency rating of the teachers should be kept on file in the office of the superintendent. Fortunately, a State retirement law, which allows any teacher who is properly retired a retirement salary or pension of \$500 per year for the remainder of life, makes it easy to retire from the service most teachers who have become inefficient through old age; and the board of education should not hesitate to make full use of the provisions of this law when necessary.

Still more important for the highest efficiency of the schools and for the happiness of all who work in them, whether as supervisors, or teachers, or pupils, is the constant improvement of the great body of teachers actually at work. This is a matter of vital concern and all possible means should be devised for inspiring the teachers in service with the highest ideals and for giving them opportunities for professional growth and improvement and for encouraging them to take full advantage of these opportunities. Such means are not so common in the schools of San Francisco as they should be; but the fine spirit which the survey committee found among the teachers, principals, and supervisors, and others connected with the educational work of

the schools, and the desire frequently expressed for more opportunities for professional improvement make it quite certain that all such opportunities would be well used. The board of education, the superintendent, and his deputies should give this matter constant and thoughtful attention.

ORGANIZATION AND CLASSIFICATION.

As already noted, the educational activities of the public schools of San Francisco are under the immediate direction of the board of education through a standing committee called a "schools committee," and the superintendent of schools and his staff of deputies, neither body being properly related to the other under the law.

The board of education on the one hand has certain definite, specific duties with regard to the educational work which it is called upon to perform under the charter; on the other hand, the superintendent of schools and his staff of deputies are called upon to do an identical piece of work in directing the educational activities of the schools, thereby creating the unfortunate double-headed plan of control already touched upon in this discussion.

In the exercise of its powers under the State school code and under the city and county charter, the board of education of San Francisco has organized and is maintaining at the present time the following classes and types of schools:

1. Kindergarten schools.
2. Day elementary schools.
3. Evening elementary schools.
4. Day high schools.
5. Evening high schools.
6. School centers for manual training.
7. School centers for work in home economics.
8. Special schools as follows:
 - (a) A department or corrective school.
 - (b) Oral school for the deaf.
 - (c) Open-air school for tubercular children.
 - (d) Schools for mental deviates.

This enumeration shows the extent to which San Francisco has tried to adapt the organization of the schools to the varying needs of all the children of all the people of the city. Much remains to be done in this direction. Other departments and other types of schools should be established now and in the near future. This question is treated more fully later in this report.

MORE KINDERGARTENS NEEDED.

Some of the types of schools named in the above list are not being expanded rapidly enough to meet the needs of the city's children. This is notably true of the kindergarten department, which in

1913 had but 66 pupils enrolled, 575 in 1915, and 883 in 1916. Several kindergarten schools are maintained by the Free Kindergarten Association of the city. In 1916 these schools reported 1,760 children enrolled. So the schools are not so much without the influence of the kindergarten spirit in their work as the number of children in the public-school kindergartens would indicate. When, however, the total enrollment of 2,643 children in both public and private kindergartens in 1916 is set over against the enrollment of more than 9,000 pupils in the first year of the elementary grades, the fact is made apparent at once that of the children of kindergarten age not more than one in five has the benefit of kindergarten training. The board of education of San Francisco ought to make the kindergarten an integral part of the public schools and give to all children in the city between the ages of 4 and 6 opportunities for two years of training in a kindergarten department properly articulated with primary grades. Through such a policy the kindergartens supported by the various organizations of the city would gradually be absorbed into the public-school system. The value of kindergarten training in the life of city children and the importance of kindergarten instruction for young children need not be argued here. The fact that there are now enrolled in the public-school kindergartens of the United States nearly half a million children bears eloquent testimony to the belief of many communities that the value of kindergarten instruction is a vital factor in the proper training of little children.

The day elementary schools cover eight years of work, each year divided into an A and a B grade. General promotions are made throughout the schools on the semi-semester plan now in use in many American cities. The departmental plan of instruction has been introduced in the seventh and eighth year grades in a few of these schools. The French language is taught as an elective in five of the elementary schools; the German language in eight; the Spanish language in two; the Italian language in four of the day elementary schools and in one evening elementary school.

The offering of elective courses in modern languages is made mandatory under the State school law, but the board of education has the right to designate the particular schools in which each language shall be taught. Such schools are called "cosmopolitan schools," in the language of the school code. These schools tell the story of California's cosmopolitan population; and the cosmopolitan character of the population is emphasized in San Francisco.

INTERMEDIATE SCHOOLS.

While the intermediate school is a common type of school in the State of California, San Francisco has but three, and these three are purposely maintained as elementary schools only. Two of these

—the Horace Mann School and the Crocker School—confine their work to the sixth, seventh, and eighth-year grades; the Hamilton Intermediate School has fifth, sixth, seventh, and eighth year grades. Neither of these schools is of the type commonly known as the junior high schools, schools of which type usually include seventh, eighth, and ninth year grades, and constitute the first three years of a high school of six years based on an elementary school of six years. Indeed, the desirability of organizing the schools on this plan does not seem to have been seriously considered by the responsible school officers of San Francisco, although this plan of organization has received the approval of students of education and important bodies of educators, including the Department of Superintendence of the National Education Association, and has been adopted fully or partially in many cities. For convenience, many cities which have adopted the 6-6 plan of organization, divide the upper six years of the course into two-groups of three years each, calling the two groups intermediate school and high school, or junior high school and senior high school.

Because of the comparative newness of this plan of organization in American schools, any city of the size of San Francisco will want to try the experiment of such organization in a few schools before adopting it generally. The three intermediate schools now in operation in San Francisco offer an excellent opportunity for the beginning of such an experiment by dropping the sixth-year grade at the Horace Mann and Crocker Schools, and the fifth and sixth year grades at the Hamilton School, adding a ninth grade to each school and revising the courses of study. It would probably be wise to organize other schools on this plan at once. The survey committee believes much might be gained by adopting the 6-6 plan of organization with junior and senior high schools for all the city, and that the board should adjust its plans to this end as rapidly as possible if the experiments here recommended prove satisfactory.

CONGESTION IN HIGH SCHOOLS.

One reason—and a very important one—why this plan of organization should be carefully considered now is found in the fact that the board must provide relief in the immediate future for the present congestion in both the high schools and the elementary schools, and for this purpose must reconstruct and enlarge many old buildings or erect new ones.

That the high schools are much congested is shown clearly by Table 56 and figure 35, which give the number of pupils per teacher in average daily attendance in high schools of 28 cities.

TABLE 56.—Number of pupils in average daily attendance in the high schools per teacher, in San Francisco and in 22 other cities, for the year 1914.¹

	Pupils.		Pupils.
1. Salt Lake City.....	11.3	12. Seattle.....	19.8
2. Kansas City.....	15.2	13. Omaha.....	20.0
3. Rochester.....	16.9	14. New Orleans.....	20.2
4. Los Angeles.....	18.1	15. Cleveland.....	20.2
5. Washington.....	18.2	16. Cincinnati.....	20.5
6. Milwaukee.....	18.6	17. Buffalo.....	22.5
7. Pittsburgh.....	18.6	18. Indianapolis.....	22.9
8. St. Paul.....	18.7	19. Jersey City.....	23.3
9. Baltimore.....	19.1	20. Portland.....	23.3
10. St. Louis.....	19.2	21. Boston.....	26.9
11. Detroit.....	19.6	22. SAN FRANCISCO.....	27.2
		Average, 20.	

This table shows that in 1914 San Francisco had in its high schools an average daily attendance per teacher of seven pupils above the average of the 22 cities named; 11 more than the average of the first five; nearly twice as many as Kansas City; and two and one-half times as many as Salt Lake City. From this the inference can

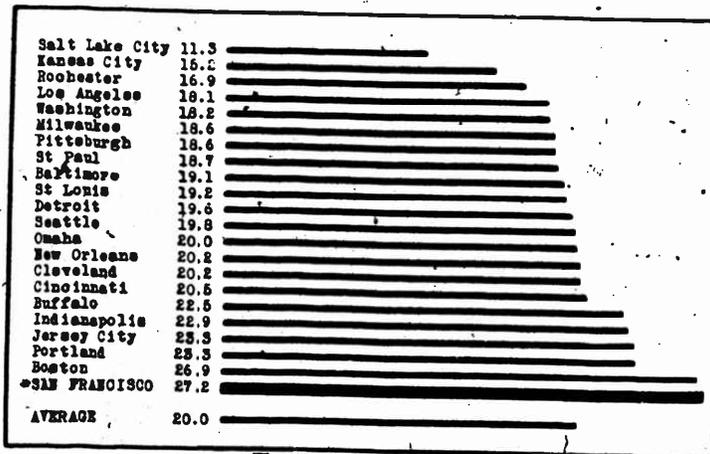


FIGURE 35.—Average daily attendance per teacher in high schools. Of the 22 cities, 13 report average attendances of 18.1 to 20.5 pupils per teacher. Judged by the prevailing practice in the cities in this list, the numbers of pupils per teacher in Boston and San Francisco are excessive.

safely be drawn that many classes will reach from 35 to 40 pupils each in average daily attendance, and still higher in enrollment, owing to the fact that the live enrollment in any school at any time is in excess of the average daily attendance (see Table 33). This means that San Francisco at present has practically reached the limit of congestion in many of the high schools, and that the situation is such as to demand that a number of new teachers be employed

¹ From "A Study of the Salary Schedule of City School Systems," Research Bureau, Public Education Association, Buffalo, N. Y., 1916.

at once and the congestion relieved. Were the enrollment and attendance in high schools anything like as large in proportion to population as it is in many other cities (see Table 15), and as it should become in the near future in San Francisco, the congestion would be much greater still.

DESIRABILITY OF CHANGING PRESENT ORGANIZATION.

These facts of present congestion and probable increase in high-school enrollment and the desirability of reorganizing the schools on the 6-3-3 plan should all be considered in connection with the building program. The board of education must, before undertaking any new buildings for high schools and for schools with grades above the first three or four years, answer for itself the following questions:

First. Shall the public schools of the city continue their present organization on the 8-4 plan, with eight years of work in the elementary grades and four years of work in the high-school grades? Or,

Second. Shall the city take steps looking toward the gradual reorganization of its public schools on the 6-6 plan or the 6-3-3 plan, with six years in the elementary schools and six years in the high schools divided into two groups of three years each, as already described and as recommended by the survey committee?

If the board of education continues the 8-4 plan of organization, then, as stated elsewhere in this report, it must provide in the near future for at least two additional four-year high-school buildings to relieve the present congestion, and to bring high-school facilities nearer the homes of the children, and thereby amend to some extent the mistake which has been made in locating all the high schools in the heart of the city—a mistake which is no doubt responsible for the comparatively small high-school attendance.

If the board should decide to adopt generally the 6-3-3 plan of organization, then it will be necessary to convert some of the elementary school buildings to the use of intermediate or junior high schools, making such changes in them as may be necessary for this purpose; and to erect new buildings designed especially for this use. These intermediate or junior high schools should be so distributed over the city as to put them in easy reach of all the children.

The taking of the ninth-year (first year of high school) pupils from the present high schools would relieve their congestion to such an extent as to make it possible to postpone the erection of other senior high-school buildings for two, three, or four years; certainly, however, not longer if the high-school enrollment increases as it should. The pupils remaining in each of these high schools in the tenth, eleventh, and twelfth year grades would constitute a senior high school.

REASONS FOR REORGANIZATION.

In all cities in which the 6-6 plan or the 6-3-3 plan has been introduced it is claimed that it has been possible to bring about a decided improvement of the courses of study in all departments of the school system, and particularly in the seventh, eighth, and ninth year grades, in which the course of study in American schools generally has been lacking in that quality of vital interest which grips and holds boys and girls of the ages represented in these grades. Many other reasons for such a reorganization of the 12 years of elementary and secondary schooling have been given in much detail. This is not the place to rehearse them. The following extract from Commissioner Claxton's introduction to the Annual Report of the Commissioner of Education for 1913 sums up briefly some of the more important of these reasons:

1. For most children the beginning of adolescence, marking the transition from childhood to youth, comes at 12 or 13. Most writers on education have recognized this and accepted it in making their plans for a school system. Bishop Comenius suggested 6 years for the school of infancy or the school of the mother's knee, 6 years for the vernacular school, 6 years for the school of languages or the high school, and 6 years for the college, university, and professional schools. Children entering school and attending regularly complete the work of the first 6 grades at 12 or 13 years of age.
2. In most of our schools children make little real progress in the seventh and eighth grades. There has been much complaint that this is a period of marking time. This is especially true when the subject matter and the methods of the elementary school are carried through these grades, and when all the teachers are women.
3. Taking up the seventh and eighth years as a part of the high school makes it easy to begin departmental teaching in these grades and to adapt the methods of teaching and discipline to the changing demands of the children. It also makes it much easier to begin work in foreign languages, constructive geometry, history, literature, and elementary science where they should begin. We lose much by postponing the study of languages to the later years, when children have grown out of the imitative period of life, in which they can most easily learn to understand, speak, read, and write a new language. This division also makes it possible to introduce vocational education two years earlier than is now the practice, and for many reasons it is very desirable that this should be done.
4. Progress made by pupils in our high schools now suffers in comparison with that made by pupils of the *Gymnasium* and *Realschule* of Germany, the *lycee* of France, and the public school of England, and much of the work of our colleges must therefore be of a very elementary kind. With the rearrangement proposed here, boys and girls at the end of the 12 years of elementary and secondary school might have to their credit a much larger amount of effective work in languages, mathematics, science, and other subjects than they now have, and with a little more care in the selection of high-school teachers, * * * one or two full years might be gained.
5. Only about one-fourth of the children now enter the high schools. In most States the compulsory-attendance period corresponds closely to that of the elementary school. Parents and children are thereby confirmed in the belief that the education of the elementary school is all that is needed. The break between the elementary school and the high school, coming at the end of the compulsory-attendance period, suggests quitting school and makes it easy. If the break came at the end of six years of elementary school work, most of the children would at the end of the compulsory-attendance period already have been in high school two years, doing high-school work in the

high-school way, under high-school conditions, with high-school teachers, in company with those children who would under present conditions enter and go through the high school, and many more children than now enter the high school at all would remain through the entire school-year period.

6. In the larger cities the adoption of this plan would require more high-school buildings and fewer elementary-school buildings than the present plan. The larger number of high-school buildings would bring the high school closer to a large part of the school population.

7. The division of the six years of high school into two sections of three years each would make a second differentiation and readjustment of work possible and easy.

Reorganization on this plan necessarily involves a thorough and comprehensive reorganization of the courses of study in both elementary and high schools.

THE HIGH SCHOOLS.

Of the five day high schools in San Francisco four are coeducational; one admits girls only. They are the Girls' High School, the Lowell High School, the Mission High School, the Polytechnic High School, and the High School of Commerce.

The Girls' High School, the Lowell High School, and the Mission High School are modified academic schools, in which special emphasis is placed upon the academic courses. The Polytechnic High School is, as its name implies, a school offering courses in a variety of technical arts. The High School of Commerce, like the Polytechnic, is a specialized high school placing strong emphasis upon its business courses.

When these schools were first established it was evidently intended that each should be limited to its own special field. But the schools of each type have been gradually encroaching upon the field of work covered by schools of other types until neither of them is now purely academic, purely technical, or purely commercial. The tendency of each school has been to extend its courses so as to make it cover a broader field of work than it was intended it should cover when the plan of special high schools was first agreed upon. This tendency should be encouraged to the end that each high school may ultimately be made a general-course high school, offering to its pupils a full complement of academic, commercial, and technical courses. The same policy should to some extent apply to the intermediate or junior high schools when they are formed, and practical courses in agriculture, horticulture, and floriculture should be offered in both junior and senior high schools. While the present plan of organization continues, prevocational courses should be offered in the higher grades of the elementary schools.

EVENING SCHOOLS.

San Francisco maintains both evening elementary schools and evening high schools. The school year for evening schools and day schools is the same. One corps of teachers is employed for the day

schools and another for the evening schools. In these last two respects San Francisco differs from most American cities. While teachers in the day schools are not permitted to teach in the evening schools and the corps of evening-school teachers is therefore entirely different from the corps of day-school teachers, there is no director of evening schools and no distinct group of evening-school supervisors. Certain of the deputy superintendents are detailed to visit the evening schools and to inspect their work, but it is impossible to require the day-school staff of supervisors and deputy superintendents to supervise both the day and evening school activities and at the same time do equally satisfactory work in both arms of the service. As a result, the supervision of the evening schools appears to be inadequate and the schools are not well organized. Other cities have met this situation by appointing directors of evening schools, who are required to give their full time to the work of directing and supervising this important department of their public-school system.

San Francisco ought to appoint such a director of evening schools, or, in the absence of such appointment, place the work under the direction and supervision of one of its deputy superintendents and require him to give his full time to evening school work. (For a fuller treatment of evening schools and their relation to the education of immigrants see Chapter XV.)

THE MANUAL ARTS.

Instruction in manual training for boys and in cooking for girls is given in some of the larger schools, especially in the intermediate schools, for the pupils of those schools. For pupils in the other schools work in these subjects is located in certain school buildings called "centers," to which pupils come for this work, which is given by special teachers of these subjects. Instruction in these subjects is given in one way or the other to practically all boys and girls of the seventh and eighth year grades. Sewing, when given at all, is taught by special arrangement and mostly by pupil teachers from the Lux School. The work in manual training is under the direction of a supervisor of manual training, who is held responsible for the management and supervision of his department. The work in home economics is likewise under the direction of a supervisor of home economics, who is held responsible for the supervision and management of her department. Both these departments need to be better organized and more fully supervised, and their work should be extended down into the lower grades until all pupils in the elementary schools shall have some form of hand work. (For a fuller discussion of the work of these departments see Chapters XII and XIII.)

SPECIAL SCHOOLS.

The remaining types of schools which have not yet been discussed come under the classification of special schools, of which San Francisco has four, as follows:

(1) *A Department School* (to use the language of the charter), called the Ethan Allen School.—This is a corrective or parental school of high class; the work being done therein is a credit to the board of education, the school officials, and to the principals and teachers in charge of the school. Whenever it shall be necessary to set up other schools of this type in San Francisco, the city will be fortunate, indeed, if it can duplicate the splendid work now being done in the Ethan Allen School, and above all duplicate the fine spirit which now pervades that school.

(2) *Oral School for the Deaf*.—San Francisco is likewise fortunate in the excellence of the work now being carried on in her Oral School for the Deaf. The work being done in this type of oral instruction at the Golden Gate School is of a superior order.

(3) *Open-air schools for tubercular children*.—San Francisco has made a beginning in the establishment of schools for tubercular children, and as far as it has gone the city has done well. But San Francisco's health statistics show that there should be more of these schools established in order that all children tubercularly inclined shall be properly segregated in open-air schools, where they can be given proper care and attention under medical supervision. On account of the mild climate San Francisco could easily establish a large number of open-air schools for anemic children and at the same time maintain fresh-air rooms in every school building in the city. The buildings in which the schools for tubercular children are housed are unsatisfactory with regard to both their location and their surroundings. This is a matter which should receive the serious attention of the school officials in cooperation with the health authorities of the city.

(4) *Schools for mental deviates*.—San Francisco has just begun the establishment of schools of this type. The city has been fortunate in obtaining at the very beginning good teachers, specially prepared for this work, and the work of these schools is being conducted along proper lines. The segregation of the deviates into these special schools is accomplished under the able guidance of a member of the medical staff of one of the leading hospitals in the city, who is especially interested in this type of humane education.

// SPECIAL SUPERVISORS.

In addition to the above types of schools, San Francisco has in her school organization the following departments of special work:

(1) Drawing. (2) Music. (3) Home economics. (4) Manual train-

ing. (5) Primary grades. (6) Physical education, athletics, social and lecture centers.

Each of these departments has been placed in charge of a single supervisor or director, whose duty it is to manage, control, and supervise the work in his department. But notwithstanding this assignment to work, it was apparent to all members of the survey staff that the supervisors are consciously or unconsciously restrained from accomplishing their best work because of the limitations placed upon them in the exercise of their authority, as noted elsewhere in this report. Among these limitations are the following:

First. Under the dual plan of school control in San Francisco the supervisors do not have full power to require good work. It will be recalled that some of the supervisors take their instructions from the superintendent and his staff of deputies, while others look directly to the board of education or the chairmen of its committees for official direction. What is true of the supervisors is likewise true of the principals who, in many instances, look directly to the members of the board as their immediate official superiors. It will be seen from all this that as a result of this confusion of authority the work of the supervisors and directors of special subjects is made to suffer in the schools as a whole. Now, to be effective in his work, a supervising principal not only must have special ability along his particular line, and those personal qualities of head and heart so essential to good leadership, but he must have, in addition thereto, full authority and full power to enforce his requirement for good work upon those whom he is employed to direct. This principle is fundamental in proper supervision, and unless it be recognized by the board and the superintendent, by principals and teachers, no supervisor can do his work happily or well.

Second. While the right of a supervisor to direct his special work in the elementary schools is generally conceded in San Francisco, still his right to direct such work in the high-school department has not been recognized. It was apparent to members of the survey staff that some of the supervisors are so uncertain as to their authority on this point that they have failed to assume that the high-school department is a necessary and important part of their supervisory field; indeed some of the supervisors have been discouraged from so assuming. This state of affairs is due in large part to a spirit of aloofness which pervades the high schools themselves. This condition, however, is not so serious an obstacle that it can not be immediately removed through an official order assigning to both elementary and high school departments all supervisors whose special work touches these two departments. This spirit of aloofness, it should be observed, is not peculiar to San Francisco alone; it grows up unconsciously in every school system in the country unless it is constantly watched and counteracted by those in authority.

Third. A third reason why a supervisor can not do his most satisfactory work lies in the fact that the San Francisco field is too large a field for a single supervisor in any one department to hope to give definite and close supervision to all the work of that department. From the very nature of the case his supervision is obliged to be general in its character. This means that that type of intensive work on the part of a supervisor which is so essential to successful supervision is practically unknown in San Francisco. This situation, however, can be remedied by assigning to each supervisor a staff of field assistants to aid him in his work and at the same time assigning to him an office clerk to relieve him of all the details of clerical work.

NEED OF MORE SUPERVISION.

Attention is called to the fact in this connection that San Francisco, when taken in comparison with other cities, is undersupervised. In 1914 the city spent but 29 cents per pupil in average daily attendance

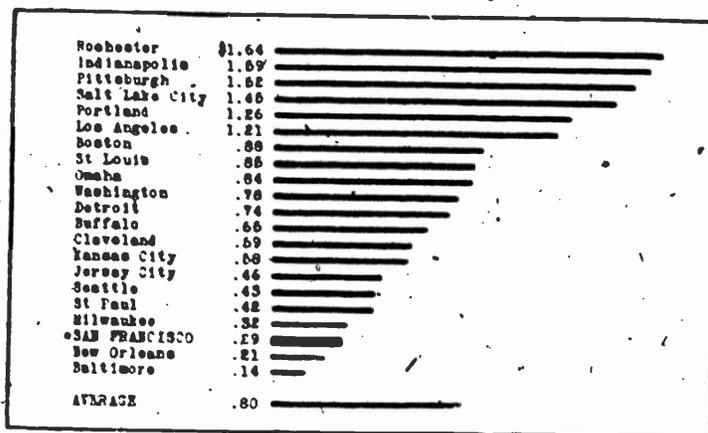


FIGURE 36.—Per capita cost of supervision of special subjects.

for salaries and other expenses of supervision of special subjects in its schools. In that same year the following cities spent the amounts set opposite their names, as indicated in Table 57. See also Figure 36.

TABLE 57.—Per capita cost of supervision of special subjects.

1. Rochester	\$1.64	12. Buffalo	\$0.65
2. Indianapolis	1.59	13. Cleveland	.59
3. Pittsburgh	1.52	14. Kansas City	.58
4. Salt Lake City	1.49	15. Jersey City	.46
5. Portland	1.26	16. Seattle	.43
6. Los Angeles	1.21	17. St. Paul	.42
7. Boston	.88	18. Milwaukee	.32
8. St. Louis	.85	19. SAN FRANCISCO	.29
9. Omaha	.84	20. New Orleans	.21
10. Washington	.78	21. Baltimore	.14
11. Detroit	.74		
		Average, \$0.80.	

¹ See footnote, p. 80.

In view of this comparison San Francisco ought not to hesitate to increase the number of its special departments and at the same time to assign field assistants and clerical helpers to the heads of all departments created by the board. It is recommended that the following new special departments be created in addition to those already established.

(a) A Department of Evening Schools and School Extension Work to include the following: Evening schools; social, civic, community, and lecture centers; day schools for adults; and vacation schools.

(b) A Department of School Gardens and Nature Study and City Beautification to include supervision of the following: Instruction in school gardening; instruction in nature; agriculture.

(c) A Department of Attendance to have charge of the following: Compulsory attendance; the issuance of child-labor certificates; the taking of the school census; the parental schools; and the juvenile-court schools.

(d) A Department of Writing to have charge of the supervision of the subject of penmanship in both the high schools and the elementary schools.

In the event of the above-named new departments being created, a reorganization of the work now being done in the present departments would be necessary, and some of the duties now being performed by certain departments would need to be transferred to other departments. And, too, some of the existing departments would need to be so expanded as to make them cover a broader field of work than they are now covering. In the recommendations set forth below is indicated the number of new employees which the survey committee believes should be assigned to each department in order that the work may be done efficiently and economically. It is unwise economy, if not the very highest extravagance itself, to organize a department and then fail to equip it with sufficient help to enable it to obtain the full results for which it was organized. It is not expected that all these additional employees should be appointed at once, but rather that they will be appointed from time to time as these departments under the direction of the superintendent of schools, following the wise policy of the board of education, may be so developed and strengthened as to enable them to do their proper work and to justify their establishment and the better organization and further direction and supervision recommended.

It is further suggested in this connection that the heads of the several departments of special work shall hereafter be called "Directors of Special Work," instead of supervisors; that there shall be assigned to each department a certain designated number of assistants to the director, who might be called "Supervisor," and whose duty it shall be to assist the director in the fieldwork of the department; and, lastly, that stenographer-clerks shall be assigned to the

office of each director in order that the director shall be relieved of all clerical work and have his time saved for the more important constructive work of his department.

REORGANIZATION OF SPECIAL DEPARTMENTS.

The following recommendations are offered for the reorganization of the departments of special work. The staff suggested is in each case such as the survey committee believes to be necessary for the full efficiency of the department, with an attendance in the schools not much larger than the attendance now is.

First: That the department of drawing shall hereafter be known as the "Department of Art Education," the staff of this department to consist of the following: One director of art education, five supervisors, one clerk.

Second: That the department of music shall continue under its present title, the staff of the department to consist of the following: One director of musical education, five supervisors, one clerk.

Third: That the department of home economics shall hereafter be called the "Department of Home Economics and Vocational Subjects for Girls," the staff of the department to consist of the following: One director of home economics and vocational subjects for girls, four supervisors, one clerk.

Fourth: That the department of manual training shall hereafter be called the "Department of Manual Arts and Vocational Subjects for Boys," the staff of the department to consist of the following: One director of manual arts and vocational subjects for boys, two supervisors of vocational education, one field worker in vocational guidance, one placement-secretary in vocational guidance, one clerk.

In this connection attention is called to the fact that if San Francisco wishes to participate in the distribution of the funds made available by the Federal Government through the enactment of the law for Federal aid to vocational education, the so-called Smith-Hughes Act, it will be necessary for the board of education to enlarge the work of the two departments of home economics and vocational subjects for girls and of manual arts and vocational subjects for boys, so as to comply with the provisions of this act.

Fifth: That the department of primary grades shall hereafter be called the "Department of Primary and Kindergarten Instruction," the staff of the department to consist of the following; one director of primary and kindergarten instruction; two supervisors of primary instruction; one supervisor of kindergarten instruction; one clerk.

Sixth: That the department of physical education, athletics, social and lecture centers shall hereafter be called the "Department

of Health;" that all work connected with social and lecture centers shall be transferred to the department of evening schools and school extension work; and that the function of the department of health shall be enlarged so as to include supervision of the following:

- (a) Supervision of physical training and athletics in the high schools.
- (b) Supervision of physical training and athletics in the elementary schools.
- (c) Supervision of physical training and athletics in the evening schools.
- (d) Supervision of play grounds and recreational activities in all classes and types of schools, and in the city as well.
- (e) Supervision of schools for mental deviates.
- (f) Supervision of open-air schools; fresh-air schools; and schools for tubercular children.
- (g) Supervision of schools for deaf, blind, and crippled children.
- (h) Supervision of medical inspection and medical examination of children in attendance upon the public schools.
- (i) Supervision of school nurses.
- (j) Supervision of school clinics, such as dental, psychological, eye, tuberculosis.
- (k) Supervision of sanitation of school grounds and school buildings, and of lighting.
- (l) Supervision of the health of teachers.
- (m) Supervision of the health of janitors and others employees.

This is a full program, but it is none too full for San Francisco to include in its department of health, a department whose work should be of such vital concern to the physical and mental well-being of the children of San Francisco as to demand that no expense be spared in making it a strong and powerful agency in the proper health training of the children in the public schools. Such organization of this department will make it necessary to transfer the control of the city playgrounds to the board of education, where it properly belongs, and to amend the charter so that the board of education may appoint its own school nurses and its own medical inspectors. The board of education now has the right to establish and maintain the school clinics called for in the above outline.

To do the work of such a department properly, the board would need to include on the staff of the department of school health the following: One director of school health; one supervisor of physical training and athletics to have charge of the health training of the boys and girls in the high schools, in each of which there should be employed one male instructor for the boys and one female instructor for the girls; six supervisors of physical training and athletics in the elementary schools; one supervisor of play grounds; 10 full-time school physicians to have charge of the medical inspection and medical examination of all children in the public schools; 20 full-time school nurses to do the follow-up work under the direction of the school physicians; a chief for each clinic; one clerk.

The director of school health should be a physician of experience, of recognized skill and standing in his profession, and a man possessing those sympathetic qualities of head and heart necessary for a

position which has to do so largely with the health of little children and of the youth of the community.

Seventh: That a department of evening schools and school extension work shall be established to have charge of the supervision of the evening schools; of all social, civic, community, and lecture center work; of all day schools for adults; of all summer-vacation schools; and of such other extensions of the school system as may be assigned from time to time. This department should be placed in charge of a director of evening schools and school extension work, one assistant director, and one clerk.

Eighth: That a department of school gardens and nature study and agriculture and city beautification be established to have charge of the work of instruction in nature study, elementary science, school gardens, and agriculture. It is suggested that the staff of this department shall include the following: One director of school gardens and nature study and city beautification; a sufficient number of part-time garden teachers to be employed during the gardening season; and a part-time clerk to be shared with the director of writing.

Ninth: That a department of attendance shall be established to have charge of the following: Compulsory attendance in the schools; the issuance of child-labor certificates; the taking of the school census; such parental and juvenile court schools as may be established under the authority of the board; and such other work as may properly be assigned to this department. The staff of this department should consist of the following: One director of attendance; eight attendance officers, who should also be required to take the school census by school districts; and one clerk.

Tenth: That a department of writing shall be established to have charge of the supervision of the teaching of writing in both the high schools and elementary schools, the staff of the department to consist of the following: One director of writing; five supervisors; one part-time clerk to be shared with the director of school gardens.

STAFFS OF SPECIAL DEPARTMENTS.

For clearness these recommendations are summarized as follows:

PROPOSED REORGANIZATION OF THE DEPARTMENT OF SPECIAL WORK.

- I. *Department of Art Education.*
 1. Director of Art Education.
 - (a) Supervisors of Art Education.
 - (b) Clerk to the Director.
- II. *Department of Musical Education.*
 1. Director of Musical Education.
 - (a) Supervisors of Music.
 - (b) Clerk to the Director of Musical Education.

III. *Department of Home Economics and Vocational Subjects for Girls.*

1. Director of Home Economics and Vocational Subjects for Girls.
 - (a) Supervisors of Home Economics and Vocational Subjects for Girls.
 - (b) Clerk to the Director of Home Economics and Vocational Subjects for Girls.

IV. *Department of Manual Arts and Vocational Subjects for Boys.*

1. Director of Manual Arts and Vocational Subjects for Boys.
 - (a) Supervisors of Manual Arts.
 - (b) Supervisors of Vocational Education.
 - (c) Field Worker in Vocational Guidance.
 - (d) Placement-Secretary in Vocational Guidance.
 - (e) Clerk to the Director of Manual Arts and Vocational Subjects for Boys.

V. *Department of Primary and Kindergarten Instruction.*

1. Director of Primary and Kindergarten Instruction.
 - (a) Supervisors of Primary Instruction.
 - (b) Supervisor of Kindergarten Instruction.
 - (c) Clerk to Director of Primary and Kindergarten Instruction.

VI. *Department of School Health.*

1. Director of School Health.
 - (a) Supervisor of Physical Training and Athletics in the High Schools.
 - (b) Supervisors of Physical Training and Athletics in the Elementary Schools.
 - (c) Supervisor of Playgrounds.
 - (d) School Physicians.
 - (e) School Nurses.
 - (f) Clerk to the Director of School Health.
 - (g) Chief of each clinic established by the board.

VII. *Department of Evening Schools and School Extension Work.*

1. Director of Evening Schools and School Extension Work.
 - (a) Clerk to the Director of Evening Schools and School Extension Work.

VIII. *Department of School Gardens, Nature Study, and Agriculture.*

- (a) Part-time Garden Teachers.
- (b) Part-time Clerk.

IX. *Department of Attendance.*

1. Director of Attendance.
 - (a) Attendance Officers.
 - (b) Clerk to Director of Attendance.

X. *Department of Writing.*

1. Director of Writing.
 - (a) Supervisors of Writing.
 - (b) Part-time Clerk.

CONSTRUCTION AND REPAIR OF BUILDINGS.

In the preceding pages of this report attention has been called to the fact that the board of education in San Francisco is prohibited from erecting its own school buildings and from making repairs on the same, this work having been delegated in the charter to the board of public works, which is a coordinate branch of the city government. The board of education, however, does have the right to take the initiative in the matter of the purchase of school sites, the erection of school-

houses, and the making of repairs on the same, in that the charter provides that the board of education may suggest to the board of public works the necessity of such work, and to ask that plans and specifications be submitted for the school board's approval or rejection; and the board of public works is prohibited from proceeding with such plans until the same shall have been approved by the board of education.

From the above it will be seen that the board of education is not required to set up a building department of its own, since all building and repair work is now done outside of its own organization. Indeed, it should be stated here that there can be no necessity for the creation of such a department so long as the present plan of school control continues.

But it is the opinion of the survey committee that the present plan of school control in this respect is wrong in principle. It divides authority and responsibility in the administration of the building affairs of the school department. In other cities in which this plan has been tried it has not worked satisfactorily either to the school board or to the board with whom the responsibility has been shared. The plan may work well for a while, but it can hardly fail sooner or later to result in friction between the two boards.

It is therefore recommended that the charter be so amended as to give the board of education of San Francisco the full control and management of all its building affairs. Should this amendment to the charter be made, then, of course, the board of education would be obliged to create a new department to have charge of buildings and grounds and all matters pertaining thereto, including supervision of the janitorial staff, and at the same time to place such department in charge of a technical expert to be under the direction of the superintendent of schools. Such technical expert should be assisted in his work by a sufficient number of office or other employees to meet the needs of the department.

Again, in the management of the financial affairs of the public schools, the board of education is brought face to face with the question of dividing its authority and responsibility with still another branch of the city government, the board of supervisors of the city and county of San Francisco.

THE SCHOOL BUDGET.

It has already been pointed out that in the matter of providing for the school revenue, the board of education is limited to the taking of the initiative in the preparation of the school budget for any ensuing fiscal year; and the superintendent of schools has the same right, under the State school code, to submit, entirely independent of the

board of education itself, a separate budget estimate to the board of supervisors.

When these budgets are prepared, they are submitted to the board of supervisors, which has a right to revise the same up or down and fix the school levy as they may see fit. Thus again the board of education is prohibited by charter from performing a function which ought to belong to it, and to it alone—the duty of making its own school levy within the limitations prescribed by State law. It surely ought to be apparent to all that the board of education, on account of its intimate familiarity with the affairs of the public schools, is better prepared than any outside body to determine the amount of school revenue needed to maintain the schools at a high standard of efficiency. To deprive it of its real right in this particular and require that it shall submit a budget to a coordinate branch of the city government for its revision tends to reduce the board of education to a mere clerical body in one of the most vital questions with which the administration of the public schools is concerned. The board of education should have the power to make its own levy within the limitations imposed by State law, and should have full, complete, and independent management of all the financial affairs connected with the administration of the public schools. The charter of the city and county should be revised so as to give the board this power.

DIVIDED RESPONSIBILITY FOR ACCOUNTING.

The board of education now depends wholly upon the accounting and auditing departments of the city and county government for detailed information with regard to the receipts and disbursements of the school revenues. This has a tendency to create an indifference on the part of the entire school establishment toward questions of accounting and of educational and financial statistics. It should be said, however, that both the accounting and the auditing work is well done by the city and county auditor and his staff of assistants. At the present time this department uses the plan of school accounting suggested by the Federal Bureau of Education at Washington; so that hereafter financial reports of school receipts and expenditures in San Francisco can be compared, item by item, with all cities making similar reports to the National Government.

However, no matter how well the work may be done by the auditing department of the city and county the department can not be expected to carry its accounting to that point of refinement which the board of education needs in connection with its administration of the school system. It is not the function of the auditor's office to perform this duty, nor should such detailed work be required of it. The auditor will of necessity classify his accounts along the broad lines controlling receipts and expenditures of the school revenues,

his work being general in its intent and purpose; but if these general accounts are to be made available for the purpose of comparing one type of schools and school activities of San Francisco with another and for comparing costs in San Francisco with those of other cities, then it will be necessary for the board of education to make still further refinements in accounting in every branch of the service in which such comparisons are to be made. This work should be done not by the auditor but by the board itself.

Boards of education quite generally throughout the country are placing larger and larger emphasis upon the work of their accounting and statistical departments. It is recommended that San Francisco take steps for the creation of such a department in the schools, the same to be placed in charge of a technical expert who shall be under the direction of the superintendent of schools. The head of this department should be responsible for the purchase and distribution of all supplies and equipment. He should have charge of all the business activities of the board other than those assigned to the head of the building and grounds department. There should, of course, be assigned to his office a sufficient number of office and other employees to permit him to do his work efficiently and well.

DEPARTMENT OF SUPPLIES.

It is refreshing to find that there is one department connected with the business affairs of the public schools in which the board of education has full authority in all matters pertaining thereto—the department of supplies—which, in the board's organization, is placed in charge of its committee on supplies. By provision of the charter the board of education has full and independent powers with regard to the matter of the purchase of all schoolroom supplies and of all furniture and new equipment placed in the schools. It also has charge of the repair of furniture, apparatus, and other equipment. The chairman of the supplies committee is the nominal head of the department.

A general storekeeper is placed in charge of the store or warehouse, an unused school building set aside as a storage house for supplies. To facilitate quick delivery of supplies, the building selected is located near the center of the city. The storekeeper has on his staff a bookkeeper and other clerical assistants. He also has a number of helpers and laborers to aid him in handling the work of his department.

A survey of the storeroom showed that the stock of supplies on hand was well taken care of and that the supplies were being handled in an orderly manner through proper requisitions made by the principals of the schools and by the heads of the several departments. No requisitions are filled except on the approval of the chairman of the committee on supplies. However, the chairman of the com-

mittee on supplies states that the board of education is handicapped in this department on account of lack of funds with which to purchase supplies in sufficient quantity to meet the just and proper demands of the schools. This feeling was likewise in evidence in all departments of the schools themselves, and the shortage of supplemental textbooks, library books, apparatus, and even of the general supplies used in instruction was generally commented upon by teachers, principals, and heads of departments throughout the entire system. The board of education itself would no doubt remedy this matter if it had the authority to increase the amount set aside from year to year for this item in the budget.

In addition to the above matters connected with the business organization of the schools, there remain two or three other topics of vital interest to the educational department of the schools which should not be omitted from this discussion:

- (a) The place of civic and social studies in the schools.
- (b) The place of a department of research and efficiency in the schools.
- (c) The place of a department of coaching teachers in the schools.

SOCIAL PHASES OF EDUCATION.

The trend of modern education is to emphasize the social phases of education, but such work, to be properly done in a school system, needs to be fully and comprehensively done, needs to be done in such a way that the whole field of instruction will be brought under the sweep of its influence. Social education concerns itself quite as much with the spirit as with the facts of instruction. The general supervision of this vitally important work should be placed in cultured, sympathetic hands, and it is therefore recommended that its organization and supervision be intrusted to a deputy superintendent who by taste and inclination is best fitted to supervise such work. (For a full discussion of this subject see Chapter IX.)

It is further recommended that steps be taken at once looking toward the establishment of a department which will concern itself with work in the field of educational research and with a study of the proper use of efficiency standards in connection with every department of the school system, educational, business, and financial. This work should be placed in charge of a deputy superintendent especially qualified and fitted to carry on such work. The importance of such a department in connection with the public schools can not be overestimated.

Like most American cities, San Francisco finds itself facing the problem of retardation in the schools. With a view to improving the condition in this respect, a number of ungraded, or, more properly speaking, coaching teachers, were appointed to positions in the

schools some two or three years ago. But, later on, owing to financial stress, the board found itself obliged to discontinue the services of these teachers, although at the time there was every evidence that they were fully justifying their appointment in reducing appreciably the amount of retardation in the several grades of the schools. Owing to the different capacities of children, and owing to the repeated absence of many children on account of sickness or for other causes, there is an imperative need for just such a group of coaching teachers in every school system in the country, and San Francisco will do well to restore at an early date the plan which two or three years ago had been so wisely begun. It is recommended that San Francisco reestablish its coaching-teaching department, that it provide for the employment of at least 30 such teachers, and that this work be placed under the supervision and direction of one of the deputy superintendents.

In this part of this report reference has been made to the necessity of San Francisco's introducing into the school system still other types of work which it is believed are needed for the good of the children, and it is here recommended that steps be taken for the introduction of the following:

Oral hygiene, with a staff of dental operators under the director of health; a school or schools for blind children; a school or schools for crippled children; a policy looking toward a larger use of school buildings for social, civic, and community centers; a small group of traveling teachers to work with stammerers and all children who have speech difficulties—five teachers could do this work satisfactorily for the entire city; work in agriculture, school gardens, nature study, and city beautification throughout all the city schools; summer vacation schools; continuation schools for that group of children who have been so unfortunate as to have to leave school for economic or other causes; work in vocational guidance in the high schools, in the higher grades of the elementary schools, and in the continuation schools; a mental specialist who should be on the staff of the director of health and have supervision of the segregation of the mental deviates and all seriously retarded cases; and a Roentgen-ray clinic for the examination of incipient tuberculosis. This last should be in the department of health.

OUTLINE OF PROPOSED ORGANIZATION.

These recommendations are for an organization based upon a plan of unit control whereby the entire management of the public-school system of San Francisco shall be placed in the hands of a board of education, the members of which shall perform the duties of their office without compensation, giving both their time and their service as a freewill offering to the cause of public education in San

Francisco. This will require constitutional and charter amendments, as stated on page 82 of this report.

The proper official relation of all the factors involved in the proposed new plan of school control is shown in Figure 37.

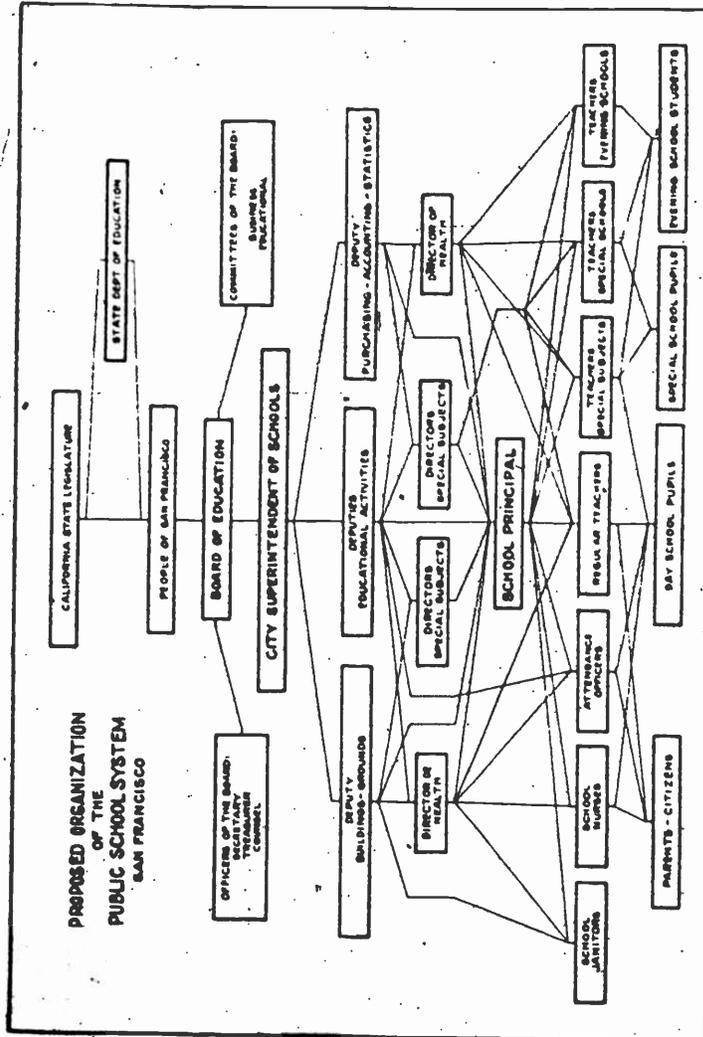


FIGURE 37.—In harmony with the best American practice, the proposed plan of organization centers responsibility for the direction and control of the public-school system in the city superintendent of schools, who is the expert employee of the board of education and is elected by the board. Neither the board nor any of its other officers or committees has direct contact with the employees, who perform their duties under instructions issued by the superintendent, through his deputies and special directors.

It is recommended:

First.—That the school department of San Francisco shall be under the control and management of a board of education composed of nine members from the city at large, who shall be elected by the people of the city and county of San Francisco or appointed by the

mayor and confirmed by the board of supervisors or appointed by the judges of the superior court,¹ and who shall give to the duties of their office such time as the business of the board may require; that such board members shall perform their duties without compensation; that they shall be not less than 30 years of age and shall have been residents of the city and county of San Francisco for at least five years prior to their appointment or election; that the board shall never be so constituted as to consist of more than four members of the same political party; that the term of office of the members shall be for six years; and that those first appointed shall so classify themselves by lot that they shall, respectively, go out of office as follows: Three members at the expiration of two years, three members at the expiration of four years, and three members at the expiration of six years.

Second.—That the board of education shall organize by electing one of its own members president, who shall serve for one year and until his successor is elected; by electing a secretary, who shall not be a member of the board, and who shall receive such annual salary as the board may determine; by creating two standing committees—one to be called the committee on business; the other the committee on education—said committees to be composed of four members each, appointed by the president of the board, who shall be ex officio a member of each committee. The city treasurer and the city attorney should be the treasurer and the counsel of the board of education and should perform the duties of their positions without additional salary, and the board should have power to employ such clerical, and other assistants as the above-named officers may need to enable them properly to perform such duties of their offices as relate to the business of the board of education.

Third.—That the board of education shall hold regular monthly meetings and such other meetings as it may determine, and that it shall establish rules for its proceedings. These rules should require a concurrent vote of a majority of its members for the transaction of any business, and the ayes and noes should be recorded in the minutes of the board on all questions where a power of the board is exercised under the charter or under State school laws.

Fourth.—That the board of education, as a corporate body, shall have all the constitutional and statutory powers which are conferred upon similar corporate bodies by the constitution and general laws of the State of California.

Fifth.—That in addition to the powers conferred by the general laws of the State, the board of education shall have full power within

¹ The member of the survey staff employed to advise the commissioner of education on questions of school administration requested to be relieved from expressing an opinion on the method of creating the board of education.

the limits of the State laws to administer and conduct all the financial, business, and educational affairs of the public-school system. Among these powers should be enumerated the following:

1. Power to control and manage, through its proper officers, all the educational, business, and financial affairs of the school district, independent of all other departments of the city government. This should include power to make the school budget and levy school taxes within the limits of the law, and power to issue bonds for school purposes within the limits of the law and in the manner prescribed by law.
2. Power to legislate for the schools through the establishment of proper rules and regulations.
3. Power to consider and determine all school policies, but no power to execute these policies except through experts employed by the board for that purpose.
4. Power to elect a superintendent of schools as a technical expert and to confirm or reject that officer's recommendations for appointments in the education, the business, and the financial departments of the schools, and to hold the superintendent responsible for results.
5. Power to command results through a proper inspection of the work from time to time, and the power to dismiss the superintendent and any of his assistants in any branch of the service for malfeasance, incompetence, unfitness, or neglect of duty.
6. Power to establish regulations for the disbursement of all moneys rightly coming under the board's control and to secure strict accountability in the expenditures thereof in connection with the county auditor's office and the board's supervision of the same.
7. Power to create an accounting, statistical, and supplies department to have charge of the work of further detailing the accounts of the auditor with regard to both receipts and expenditures; so as to make such details available for study and comparison, to the end that standards may be established, wise economies instituted, and a higher degree of efficiency produced in all the work under the control of the board.
8. Power to purchase school sites and to conduct its own building operations, entering into contract for the erection of new buildings and for the repair and remodeling of old buildings, and to create a department of buildings to have charge of this work under the direction of the superintendent of schools.
9. Power to elect and fix the salary of the superintendent of schools, who shall be the chief executive officer of the board, and who, under the board, shall have charge and direction of all the employees and activities of the board connected with the educational, financial, and business affairs of the schools.
10. Power to confirm or reject nominations made by the superintendent of schools for appointment to positions in the educational, the financial, or the business departments of the school system. No appointments should be made to any position under the superintendent except upon his initiative and written recommendation.
11. Power to establish, organize, and maintain such classes and types of schools and departments of special work as the board may from time to time deem necessary for the full efficiency of the school system, and to change, modify, consolidate, or discontinue the same as the interests of the schools may require.
12. Power, under the limitations of State law, to create and abolish positions in connection with the educational, the business, and the financial departments of the school system as the board may determine; to fix the salaries and compensation of all persons employed by the board, and to provide its own rules for the payment of the same.

Sixth.—That the superintendent of schools to be elected by the board of education, reorganized as herein recommended, shall not be

selected from among the members of the board, and that he shall not be a member of the board. As the chief executive of the board, the superintendent should have charge of all the educational, financial, and business affairs of the schools. He should be required to enforce all provisions of the State school law and all rules, regulations, and orders relating to the management of the educational, financial, and business affairs of the schools, and should have, under the board, the supervision and direction of all officers, teachers, and other employees of the board and of their activities, including the supervision and direction of courses of study, promotion of pupils, and all matters pertaining to medical inspection, playgrounds, recreation and social centers, school gardens, libraries, and lectures connected with the schools. The superintendent should be required to attend all meetings of the board of education and should have a right to speak on all matters considered by it, but no right to vote. His term of office should be for a period of not less than four years and at such salary as the board of education may determine.

Seventh.—The board of education, on the written recommendation of the superintendent of schools, shall elect five deputy superintendents, who may be called assistant superintendents or associate superintendents, as the board may determine. That the board of education shall appoint one additional deputy superintendent for each 20,000 children in average daily attendance over and above the base number of 45,000 children; that one deputy shall be placed in charge of all activities connected with the department of buildings and grounds; that one deputy superintendent shall be placed in charge of the department of accounting, statistics, and supplies, and that the remaining deputy superintendents and such other deputy superintendents as may hereafter be appointed shall be placed in charge of the educational activities of the schools, to be assigned to such administrative, professional, and supervisory work as the superintendent of schools may determine. (Some of these are indicated on pp. 93 and 125.) The term of office of the deputies should be for at least four years, at such salary as the board may determine.

Eighth.—That the following classes of employees necessary to a proper carrying on of the work in all departments of the public-school system shall be elected by the board on the initiative and written recommendation of the superintendent of schools: Directors of special departments or of special work, supervisors of special work, principals of schools, teachers, medical inspectors, school nurses, attendance officers, accountants, clerks, bookkeepers, engineers, janitors, and all other persons under the direction of the superintendent of schools.

Ninth.—That the board of education shall have the right to dismiss any school officer or other employee for insubordination, immoral or

unprofessional conduct, provided the charges against any officer or employee shall first be formally presented to the board by the superintendent of schools after due investigation; and provided further that these charges shall be passed upon finally by the board of education after due hearing. - The board shall also have the right, on the written recommendation of the superintendent of schools, to dismiss any officer or employee for evident unfitness to perform the duties of his office or position, and such a dismissal may be made without a hearing.¹

If the school laws will not permit the board of education to take action in the type of cases last named above, then the laws should be so amended as to permit the board to dismiss for pedagogical incompetence and unfitness without granting a hearing. Obviously, the facts involved are of a nature which can not be subjected to the processes of hearing; and therefore the courts have decided that boards of education have full authority to dismiss for pedagogical incompetence and inefficiency without according the dismissed party a hearing, the courts holding that a hearing is without avail, since in the end the judgment of the board's experts must prevail.²

Tenth.—That standards of qualifications to be required of candidates for examination for positions in the educational departments of the schools, and a detailed specification as to requirements for the several educational positions in the schools, shall be adopted by the board of education on the recommendation of the superintendent, and when adopted shall become a part of the rules and regulations of the board.

Eleventh.—That the board of education shall create a board of examiners whose function it shall be to examine and certificate all teachers and other persons in the educational department of the schools who are required by State law to be holders of proper certificates before they shall be elected to positions in the public schools of the State. The said board of examiners should be composed of the superintendent of schools and his deputy superintendents of schools.

Twelfth.—That the superintendent of schools shall establish eligible lists of teachers from which appointments should be made in accordance with the rules and regulations of the board of education.

Thirteenth.—That the board of education shall, upon the recommendation of the superintendent and subject to the limitations of

¹ Probably few cases will arise in which it will become necessary to dismiss employees for unfitness during the progress of the school year, and the school law of California provides (sec. 1617 (b)) that no board of education shall enter into any contract with any employee for a period extending beyond the close of the next ensuing school year, and that a teacher is to be deemed reelected for the next ensuing school year only when the board or the governing body of the school district fails to notify such teacher on or before the 10th day of June that his services will not be required for the ensuing school year.

² See case of *Mary E. Nalle v. James T. Oyster et al.*, pp. 826-827, vol. 35, *Washington Law Reporter*; decision rendered by Justice Van Orsdell, court of appeals. A similar decision was rendered in the case of *W. B. Evans v. Henry P. Blair et al.*, Supreme Court of the District of Columbia.

the laws of the State, adopt a definite policy in regard to the election, term of office, promotion, and assignment of duties of teachers and other employees of the board. This policy should provide for a probationary period for employees of sufficient length to test their ability; for such permanency and security of tenure as will encourage a wholesome degree of independence and freedom of initiative; for the recognition of professional ability and faithful service in promotion, and for the elimination of employees who have become incapable of the proper performance of their duties. All employees should be subject to assignment to duty by the superintendent of schools, and all assignments made by him should be reported to the board for record.

SUMMARY.

The public schools of San Francisco can not be happily or successfully administered until the present method of administration makes way for a plan of control which will permit the educational forces of the city to do their work properly, efficiently, and well. The recommendations which have been discussed in this chapter are here brought together in brief summary.

Changes in State constitution and city charter.—The State constitution of California should be amended so as to relieve the county of San Francisco from the obligation of electing a county superintendent of schools.

The charter of San Francisco should be amended to provide for the creation of a board of education which should be independent of all other branches of the city government, and which should have the full control and management, through its superintendent of schools and his assistants, of all matters relating to public-school affairs in San Francisco in the educational, business, and financial departments of the school system, the members of the board to serve without compensation.

The proposed amendment should include, among others, a provision empowering the board of education to make its budget and to determine the amount of the school-tax levy under the limitation of the State law.

The charter of San Francisco should be amended, further, to establish beyond question the proper relation between the board of education and the superintendent of schools, as its technical expert, and all of the board's employees under him. The proposed amendment should make it clear that the board of education must not attempt to perform directly the duties of carrying on the school system, but that they must employ technically trained officers for this purpose. This function of the board of education should be considered as analogous to that of the board of directors of a business corporation.

The task of amending the charter and reorganizing the public-school system should be undertaken independently of personal considerations or expediency, and solely in the light of fundamentally sound principles of organization and administration.

General.—The board of education as a corporate body should have all the constitutional and statutory powers which are conferred upon similar corporate bodies by the constitution and the general laws of the State of California.

The charter should be amended to permit the tax levy to exceed the minimum tax provided by State law under the discretion of the board of education in the meeting of proper emergencies.

If the proposed reorganization of the school system is effected, it will be necessary to create a new department to have charge of buildings and grounds (including planning, erection, maintenance, and repair) and supervision of the engineer and janitorial staff.

The board of education should reorganize its system of accounting to correspond with the increased responsibilities with which it will be charged under the new plan, as proposed, by creating a department of accounting and statistics, which should also be responsible for purchasing and distributing equipment and supplies. At the head of this department should be placed a technically trained expert, who should act under the direction of the superintendent of schools, and who should be one of the deputy superintendents.

All playground work and all recreational activities under public auspices in the city are educational in their intent and purpose, and should be under the full control of the board of education.

The official proceedings of the board of education should be published and made available for the inspection and reference of all officers and heads of departments of the school system and for the information of the public.

The board of education.—Members of the board of education, nine in number, representing the city at large, should be elected by the people of the City and County of San Francisco, or appointed by the mayor and confirmed by the board of supervisors, or appointed by the judges of the superior court, should serve without compensation, and should give to the duties of their office such time as the business of the board of education may require. Members of the board should be not less than 30 years of age and should have been residents of the City and County of San Francisco for at least five years prior to their appointment.

The board should never be so constituted as to consist of more than four members of the same political party. The term of office of members of the board should be for six years, three members being appointed every two years after the first organization.

The board should organize by electing one of its members president, by electing a paid secretary, who shall not be a member, and by creat-

ing two standing committees, of four members each, one on business and one on education. The board should have the power to employ such clerical and other assistants as may be necessary.

The board should hold regular meetings once each month, and at such other times as it may determine; it should establish rules for its proceedings, but the concurrent vote of a majority of the members of the board should be necessary to transact business; the ayes and noes should be recorded in the minutes of the board on all questions where a power of the board is exercised under the charter or under the State school laws.

The board of education should elect a superintendent of schools and determine the amount of his salary. The term of office of the superintendent should be for at least four years, and his duties and relationship to the board and to the schools and to the other employees of the board should follow the plan outlined in this report.

The board should elect five deputy superintendents on the written recommendation of the superintendent, and one additional deputy superintendent for each 20,000 pupils in average daily attendance over and above the base number of 45,000 pupils. One deputy should be placed in charge of all activities connected with the department of buildings and grounds; one deputy should be placed in charge of the department of accounting, statistics, and supplies; the remaining deputies should be assigned to such administrative, professional, and supervisory work as the superintendent may determine. The term of office of the deputy superintendents should be for at least four years, and they should receive such salary as the board of education may determine.

All other persons in the employ of the board of education, in such numbers as may be necessary to a proper carrying on of the work in all departments of the public school system, should be elected by the board, on the initiative and written recommendation of the superintendent of schools.

The board of education should have the right to dismiss any school officer or any other employee of the board for insubordination or immoral or unprofessional conduct, provided the charges against such officer or employee shall first be formally presented to the board by the superintendent of schools, after due investigation, and provided further that such charges shall be passed upon finally by the board after due hearing. The board should also have the right, on the written recommendation of the superintendent of schools, to dismiss without a hearing any school officer or other employee for evident unfitness to perform the duties of his office or position.

The board of education should have the power to establish, organize, and maintain such classes and types of schools and departments of special work as it may deem necessary, and to change, modify

consolidate, or discontinue the same as the interests of the public school system may require.

The board of education should have the power to create or abolish positions in connection with the educational, business, and financial departments of the school system as it may determine under the limitations of the State law, and to fill such positions on the initiative and written recommendation of the superintendent of schools.

The superintendent of schools.—The superintendent of schools should be definitely and officially recognized as the technical expert of the board of education, employed by the board as its adviser and chief executive officer, and charged with complete control of and responsibility for the conduct of the school system under the board and for carrying out the policies determined upon by the board.

Upon the recommendation of the superintendent of schools, the board of education should adopt such rules as may be necessary to define clearly the status of deputy superintendents, directors of special subjects, and other representatives of the superintendent, in order that there may be recognition of their authority to enforce proper standards of work throughout the schools from all supervisors, principals, and teachers.

The superintendent of schools should be free to determine the assignment of duties among his deputies and other assistants as the best interests of the service may require from time to time.

New activities.—The board of education, in accordance with plans prepared by the superintendent of schools, should provide for the introduction or further extension of those newer types of public-school activities which have not yet received full practical recognition in San Francisco, including kindergartens, departmental reorganization of the last six years of the course, revision of courses of study, manual training, home economics, schools for special classes of pupils, open-air classes, vocational classes, the social phases of education, and a department of research and efficiency.

The following new special departments should be created: (1) Evening schools and school extension, in which should be included also the social and lecture center activities now carried on in connection with physical education and school athletics; (2) school gardens, nature study, agriculture, and city beautification; (3) attendance, which should have charge of enforcement of compulsory-attendance laws, issuance of child-labor certificates, taking of the school census, supervision of parental schools and juvenile court schools; (4) writing. The functions and activities of these departments as proposed are outlined in the report.

Existing special departments should be continued or reorganized, as follows: (1) The department of drawing, to be called the "Department of Art Education"; (2) the department of music, as now; (3)

the department of home economics, to be called the "Department of Home Economics and Vocational Subjects for Girls"; (4) the department of manual training, to be called the "Department of Manual Training and Vocational Subjects for Boys"; (5) the department of primary grades, to be called the "Department of Primary and Kindergarten Instruction"; (6) the department of physical education, athletics, social and lecture centers, to be called the "Department of Health." Activities of the social and lecture centers should be transferred to the new department of evening schools and school extension. The function of the new department of health should be enlarged so as to include supervision and direction of the following: Physical training, athletics, playgrounds, and recreational activities in day, evening, and vacation schools of all classes and types, and in the city as well; schools for mental deviates; open-air schools, fresh-air schools, and schools for the tuberculous; schools for deaf, blind, and crippled children; medical inspection and medical examination of children in the schools; school nurses.

The functions and activities of the departments referred to in the preceding paragraphs are outlined in the report. Each of these departments should have at its head a capable, technically trained officer, called director, who should be given such technical assistants, called supervisors, and such clerical assistants, as may be necessary for the effective performance of the duties assigned. An outline of the personnel suggested for these staffs is presented in the report.

Efficiency of the staff.—The board of education should have the right, on the recommendation of the superintendent of schools, to set the standard of qualifications to be required of those seeking positions in the educational department, and to refuse to admit to examination any person who does not fully meet the requirements established.

The board of education should create a board of examiners, consisting of the superintendent of schools and his deputies, the function of which should be to examine and certificate all employees who are required by law to be holders of proper certificates before being eligible to employment in the school system.

The superintendent of schools should establish eligible lists of teachers according to rules and regulations of the board of education.

A plan of tenure of office of employees on the educational staff should be adopted by the board of education, upon the recommendation of the superintendent.

The superintendent of schools should have the authority to recommend, and the board of education should have the power to confirm, the appointments of persons best qualified for the service to be performed, irrespective of the places of residence of appointees.

A record of the efficiency ratings of all employees should be kept on file in the office of the superintendent of schools.

Upon the recommendation of the superintendent of schools, the board of education should make full use of the State law providing for those employees who, on account of long service or advanced years, have reached a state when they should be retired from the schools.

The superintendent of schools with his staff of deputies and special directors should provide that educational and inspirational leadership which will insure the continued training and professional advancement of teachers and other employees while in the service.

Chapter IV.

THE FINANCES OF THE SCHOOLS.

San Francisco derives its moneys for the support of its public school system from two classes of receipts, revenue receipts and nonrevenue receipts.

The board of education derives its revenue receipts from the following sources:

(1) From the apportionment of State school funds distributed at stated times in the year by the State superintendent of public instruction.

(2) From moneys raised by direct taxation on all the assessable property in the school district through a tax levy made by the board of supervisors of the city and county of San Francisco.

(3) From rentals of property owned by the board of education.

(4) From interest on school moneys deposited in banks.

The board of education derives its nonrevenue receipts from the following-named sources:

(1) From the sale of school bonds which it is authorized to issue on the vote of the qualified electors of the school district under the limitations of State law.

(2) From the sale of property and from proceeds due to insurance adjustment.

(3) And from other nonrevenue sources not included in the above.

The following summary of receipts, classified as above, for the nine years, 1908 to 1916, inclusive, has been compiled by an expert accountant directly from the auditor's books in San Francisco.

TABLE 58.—Revenue receipts. Showing amount of moneys received from (1) the State school fund, (2) local taxes, (3) rentals, (4) other sources (interest), for the years 1908 to 1916, inclusive.

Years.	State funds.	Local taxes.	Rentals.	Other sources (interest).	Total.
1908.....	\$564,804	\$1,009,627	8477	0	\$1,574,908
1909.....	674,194	1,120,590	49,324	\$33,925	1,878,042
1910.....	618,636	1,266,920	50,322	9,170	1,944,967
1911.....	737,038	1,208,492	50,888	20,900	2,017,318
1912.....	686,315	1,384,933	53,884	5,686	2,029,898
1913.....	670,762	1,533,125	54,222	4,563	2,202,702
1914.....	694,431	1,680,712	97,531	9,520	2,482,194
1915.....	852,412	1,781,447	97,441	260	2,841,890
1916.....	718,486	1,633,507	96,148	73	2,986,179

TABLE 59.—*Nonrevenue receipts. Showing amount of moneys received from (1) sale of bonds, (2) sale of property and from insurance adjustments, (3) other nonrevenue sources, for the years 1908 to 1916, inclusive.*

Years.	Sale of school bonds.	Property sales and insurance adjustments.	Other nonrevenue sources.	Total.
1908.....	0	\$3,486	\$28,849	\$31,975
1909.....	\$2,170,723	805	15,072	\$2,186,600
1910.....	961,470	800	456	962,226
1911.....	1,126,828	553	693	1,127,074
1912.....	714,688	100	590	715,378
1913.....	607,218	568	550	608,336
1914.....	852,121	173	711	853,005
1915.....	1,500	104	809	2,173
1916.....	8,300	0	646	8,946

TABLE 60.—*Summary of Tables No. 58 and No. 59. Showing (1) total revenue receipts, (2) total nonrevenue receipts, (3) grand total of revenue and nonrevenue receipts, for the years 1908 to 1916, inclusive.*

Years.	Total revenue receipts.	Total nonrevenue receipts.	Grand total revenue and non-revenue receipts.
1908.....	\$1,574,906	\$31,975	\$1,606,883
1909.....	1,878,042	2,186,600	4,064,642
1910.....	1,941,335	962,226	2,904,183
1911.....	2,017,318	1,127,074	3,144,392
1912.....	2,029,688	715,378	2,745,066
1913.....	2,262,702	608,336	2,871,038
1914.....	2,488,194	853,005	3,341,199
1915.....	2,541,500	2,173	2,543,733
1916.....	2,750,770	8,946	2,759,125

TABLE 61.—*Showing (1) number of pupils in average daily attendance at all schools, (2) number of teachers employed, (3) average attendance of pupils per teacher, (4) number school buildings in use, (5) average attendance of pupils per school, for the years 1908 to 1916, inclusive.*

Years.	Pupils in average daily attendance at all schools.	Teachers employed.	Average attendance of pupils per teacher.	School buildings used.	Average attendance per school.
1908.....	33,931	1,085	30.9	80	381.2
1909.....	35,541	1,195	29.7	92	386.3
1910.....	36,774	1,198	30.7	95	387
1911.....	37,736	1,227	30.7	100	377.3
1912.....	40,418	1,308	30.9	105	385.2
1913.....	42,830	1,423	30	105	407.8
1914.....	44,398	1,478	30	104	426.8
1915.....	46,562	1,485	31.3	104	447.7
1916.....	46,862	1,520	30.8	105	445.9

A study of Table 58 (revenue receipts) reveals the fact that within the period of the nine years listed in the table the amount of money apportioned to San Francisco from State school funds reached its highest point in the year 1911, \$737,038; that in 1912 there was a decrease from the preceding year of \$150,823; and that after that

year there was a gradual increase each year until the \$700,000 mark was again passed in 1916, the exact amount received in that year being \$718,456. This indicates that the State of California is doing its share in the support of the public school system of the State.

This table on revenue receipts also shows that the amount of moneys received from local taxes increased from \$1,009,627 in the year 1908 to \$1,933,507 in the year 1916, nearly \$1,000,000, or 91.4 per cent, in a period of less than 10 years; that rentals increased from practically nothing in 1908 (\$477) to \$98,143 in 1916. This is due to the fact that San Francisco has some very valuable property in the heart of the city which has increased not only in property value but in rental value as well. The highest amount received in any one year for interest on money on deposit was received in the year 1909, and the second highest in 1911. This was due to large issues of bonds in these years. It should be noted further that the total amount received from revenue receipts gradually grew from \$1,574,908 in the year 1908 to \$2,750,179 in the year 1916, an increase of 74.6 per cent.

A study of Table 59 (nonrevenue receipts) shows that for the nine years listed in the table San Francisco issued school bonds (for the erection of new school buildings, in the main) to the total amount of \$6,441,848. No issue of bonds was made in 1908, but an issue of \$2,170,723 was made in 1909; an issue of \$961,470 was made in 1910, and an issue of \$1,125,828 in the year 1911. This was followed by issues of \$714,688 in the year 1912, of \$607,218 in the year 1913, and of \$852,121 in the year 1914. The sale of bonds for the years 1915 and 1916 was negligible.

These bond issues, covering in all a period of 6 years (from 1909 to 1914, inclusive), tell the story of the disaster of the Great Fire in San Francisco and her successful and triumphant effort at a full and complete recovery from the same. But as a result of the stress and struggle quickly to recover from the great disaster, the city now finds itself at the point where the question of a further issuance of school bonds is in danger of being stopped because San Francisco is approaching the limit in the amount of bonds (that is, in the total of both school and municipal bonds) which cities of her class are permitted to issue under the State laws of California. This is a question which will require careful handling on the part of the board of education on the one hand and of the city government on the other in order that the forward progress of the schools with regard to the construction of necessary school buildings shall not be retarded. The demands soon to be made upon the board of education with regard to a comprehensive building program will be imperative. There is needed even now funds for the construction of necessary schoolhouses to provide for the increased growth of the schools

and to replace certain undesirable buildings now in use, which can only be procured through the further issuance of school bonds.

It must be further noted in this connection that as a result of its bonded indebtedness the school district of San Francisco is at the present time paying out each year interest on bonds to an amount approximating \$300,000, the exact amount of interest in 1914 being \$284,920; in 1915, \$296,197; in 1916, \$285,074. Since interest must be paid out of current funds, the board of education, therefore, must include its "bond interest" item in the estimate of school expenditures for each fiscal year. Thus it has resulted that the board of supervisors in setting the school levy has been obliged to exceed the limit of the tax rate as set in the city and county charter in order to procure sufficient revenue to support the schools. This the board of supervisors has assumed it has a right to do under an emergency clause in the charter and under the implied power granted to the supervisors under a State law which permits a higher rate to be levied than that set in the city charter itself.

The above situation has resulted in an unfortunate discussion with regard to the taxing power of the supervisors of San Francisco in connection with the setting of the school levy. The situation created by the charter is fair neither to the board of education nor to the board of supervisors of the city and county of San Francisco. It can be remedied by an amendment to the charter which will permit the levying of the minimum tax permitted by State law, and at the same time be made flexible enough to permit the taxing power to go beyond this amount under the discretion of the board of education in the meeting of proper emergencies. Such an amendment to the charter is recommended elsewhere in this report.

In connection with the above discussion of the school revenues, and particularly with regard to the matter of their gradual increase from year to year, attention is directed to Table 61, which shows that the number of children in average daily attendance upon the public schools of San Francisco in 1908 was 33,931, while in 1916 it was 46,862, an increase of 12,931 children, or 38.1 per cent. This increased attendance has called for an increase in the number of teachers, and hence an increased payroll for the same, as is shown by the fact that the number of teachers in the year 1908 was 1,095, while in the year 1916 it was 1,520 an increase of 38.8 per cent. Again, the number of school buildings maintained and supported in 1908 was 89; in 1916 it was 105, an increase of 17.9 per cent.

These and other statistics, taken in connection with the gradual increase in the school budget, emphasize the fact that the growth of the budget has no more than kept pace with the increase in number of children to be educated. During this period school expenditures in the country as a whole have increased much more rapidly than the number of children. The school budget increase is due to increase

in the school attendance, increase in the number of teachers, increase in the number of new schoolbuildings, increase in the amount of interest paid out on account of new bond issues, increase in teachers' salaries, to the necessity of spending a large amount each year upon the repair and upkeep of buildings and grounds (this item alone has averaged about \$125,000 for each of the nine years named above), and to other necessary expenditures. There is no indication of extravagance. The board of education within these years appears to have expended the school revenues wisely, and there is now need of large increase in these revenues to enable the board to round out an educational and building program which will give San Francisco the type of public-school system to which its people are justly entitled.

The next question which naturally will be asked is, How did the board of education spend its revenues in each of the nine years named above? The tables setting forth the expenses of the school department for the years 1908 to 1916, inclusive (p. 129 ff), will be helpful in the consideration of this question. These tables are based on the system of accounting recommended by the United States Bureau of Education which is now being generally adopted, an outline of which follows:

CLASSIFICATION OF SCHOOL ACCOUNTS.

[NOTE.—The Arabic numerals used below number different accounts, and run from No. 1 to No. 67, consecutively.]

A.—EXPENSES OF GENERAL CONTROL (OVERHEAD CHARGES), INCLUDING EXPENSES OF—

I. *Business Administration.*

- (1) School elections.
- (2) Board of education and secretary's office.
- (3) Finance offices and accounts.
- (4) Offices in charge of buildings and supplies.
- (5) Legal services.
- (6) Operation and maintenance of office buildings in which the board of education meets.
- (7) Other expenses of business control.

II. *Educational Administration.*

- (8) Office of superintendent of schools.
- (9) Enforcement of compulsory education, truancy laws, and census enumeration.
- (10) Other expenses of educational control.

Total expenses of general control.

(B)—EXPENSES OF INSTRUCTION DAY SCHOOLS, INCLUDING EXPENSES OF—

I. *Supervision of Day Schools.*

- (11) Salaries of supervisors of grades and of subjects.
- (12) Other expenses of supervision, including clerks, office supplies, etc.
- (13) Salaries of principals.
- (14) Salaries of principals' clerks and office assistants.
- (15) Other expenses of principal's office.
- (16) Other expenses of supervision.

II. *Teaching.*

- (17) Salaries of teachers.
- (18) Textbooks.
- (19) Other supplies used in instruction.
- (20) Other expenses of instruction.

Total expenses of instruction for day schools.

(C)—EXPENSES OF INSTRUCTION IN NIGHT SCHOOLS.

I. *Supervision.*

- (21) Salaries of supervisors of grades and subjects.
- (22) Other expenses of supervisors, including clerks, office supplies, etc.
- (23) Salaries of principals.
- (24) Salaries of principals' clerks and office assistants.
- (25) Other expenses of principals' office.
- (26) Other expenses of supervision.

II. *Teaching.*

- (27) Salaries of teachers.
- (28) Textbooks.
- (29) Other supplies used in instruction.
- (30) Other expenses of instruction.

Total expenses for night schools.

Total expenses instruction both day and night schools.

(D)—EXPENSES OF OPERATION OF SCHOOL PLANT, INCLUDING EXPENSES OF—

- (31) Wages of janitors and other employees
- (32) Fuel.
- (33) Water.
- (34) Light and power.
- (35) Janitors' supplies.
- (36) Other expenses of operation of plant.

Total expenses of operation of plant.

(E)—EXPENSES OF MAINTENANCE OF SCHOOL PLANT, INCLUDING EXPENSES OF—

- (37) Repair of buildings and upkeep of grounds.
- (38) Repair and replacement of equipment.
- (39) Other expenses of maintenance of school plant.

Total expense of maintenance of plant.

(F)—EXPENSES OF AUXILIARY AGENCIES AND SUNDRY ACTIVITIES, INCLUDING EXPENSES OF—

- (40) Libraries (excluding books).
- (41) Books.
- (42) Promotion of health, including medical inspection, school nurses, special clinics, etc.
- (43) Transportation of pupils.
- (44) Care of children in institutions.
- (45) Provision of lunches.
- (46) Community lecturers.
- (47) Social centers.
- (48) Recreation.
- (49) Other auxiliary agencies and sundry activities.
- (50) Payments to private schools.
- (51) Payments to schools of other civil institutions.

Total expenditures for auxiliary agencies.

(G)—EXPENSES OF FIXED CHARGES, INCLUDING EXPENSES OF—

- (52) Pensions, or "retirement salaries."
- (53) Rents.
- (54) Insurance.
- (55) Taxes.
- (56) Contributions and contingencies.

Total expenses of fixed charges.

Total current expenses, including all of above subtotals under headings numbered (A); (B); (C); (D); (E); (F); (G).

(H)—EXPENSES OF DEBT SERVICE, INCLUDING EXPENSES OF—

- (57) Redemption of bonds.
- (58) Payments to sinking fund.
- (59) Redemption of short-term loans.
- (60) Payment of interest on bonds.
- (61) Payment of interest on short-term loans.
- (62) Refunds (tax and tuition).

Total expenses of debt service.

(I)—EXPENDITURES IN CAPITAL OUTLAY (ACQUISITION AND CONSTRUCTION), INCLUDING EXPENDITURES FOR—

- (63) Land for school sites or playgrounds.
- (64) New buildings constructed.
- (65) Alterations of or additions to old buildings.
- (66) Equipment of new buildings and grounds.
- (67) Equipment of old buildings and grounds.

Total expenditures in capital outlay.

Total payments for the year.

Balances at the close of the year.

Total payments and balances.

The statistics in these tables were compiled from the books in the office of the city auditor in San Francisco, and have been recast for the purpose of making them conform to the plan of school accounting set forth above.

TABLE 62.—Expenditures for conducting the schools in (A) general control, (B, C) instruction, (D) operation of school plant, for the years 1908 to 1916, inclusive.

Years.	General control (over-head).	Instruction (day and night schools).	Operation of school plant.	Years.	General control (over-head).	Instruction (day and night schools).	Operation of school plant.
1908	\$73,981	\$1,245,938	\$87,200	1913	\$62,651	\$1,554,002	\$140,387
1909	64,286	1,394,525	95,541	1914	61,688	1,633,164	135,692
1910	65,896	1,353,018	100,722	1915	62,772	1,674,572	170,875
1911	68,139	1,492,830	112,467	1916	64,198	1,733,674	164,422
1912	68,126	1,518,315	132,260				

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TABLE 63.—Expenditures for maintenance of school plant, auxiliary agencies, and sundry activities, fixed charges—Total cost of conducting schools.

Years.	Maintenance of school plant.	Auxiliary agencies and sundry activities.	Fixed charges.	Total cost of conducting schools.	Years.	Maintenance of school plant.	Auxiliary agencies and sundry activities.	Fixed charges.	Total cost of conducting schools.
1908.....	\$33,673	\$350	\$11,562	\$1,502,710	1913.....	\$119,459	\$386	\$19,028	\$1,866,413
1909.....	134,375	0	13,534	1,672,271	1914.....	128,498	1,731	18,647	1,969,400
1910.....	14,877	0	25,148	1,559,659	1915.....	168,159	0	18,789	2,065,147
1911.....	152,530	228	25,264	1,821,456	1916.....	146,960	1,957	19,045	2,181,466
1912.....	116,545	95	22,557	1,857,888					

TABLE 64.—Expenditures for (H) debt service, (I) capital outlays, and total debt service and capital outlays combined, for the years 1908 to 1916, inclusive.

Years.	Debt service.	Capital outlays.	Total debt service and capital outlays combined.	Years.	Debt service.	Capital outlays.	Total debt service and capital outlays combined.
1908.....	\$119,659	\$289,039	\$408,698	1913.....	\$343,323	\$646,507	\$989,830
1909.....	146,516	1,032,868	1,179,384	1914.....	399,720	470,030	869,750
1910.....	223,773	1,681,559	1,905,332	1915.....	610,907	616,979	1,227,886
1911.....	274,197	1,426,826	1,701,023	1916.....	599,574	313,232	913,106
1912.....	310,670	1,376,276	1,686,946				

TABLE 65.—Summary of Tables 63 and 64, showing (1) total debt service and total capital outlays combined, (2) total costs conducting the schools, and (3) grand total all school expenditures, for the years 1908 to 1916, inclusive.

Years.	Total debt service and total capital outlays combined.	Total cost conducting schools.	Grand total all school expenditures.	Years.	Total debt service and total capital outlays combined.	Total cost conducting schools.	Grand total all school expenditures.
1908.....	\$408,698	\$1,502,710	\$1,911,408	1913.....	\$989,830	\$1,866,413	\$2,856,243
1909.....	1,179,384	1,672,271	2,851,655	1914.....	869,750	1,969,400	2,839,150
1910.....	1,905,332	1,559,659	3,464,991	1915.....	1,227,886	2,065,147	3,293,033
1911.....	1,701,023	1,821,456	3,522,479	1916.....	913,106	2,181,466	3,094,572
1912.....	1,686,946	1,857,888	3,544,834				

TABLE 66.—(1) Grand total of school expenditures, (2) average daily attendance, (3) cost per pupil, for the years 1908 to 1916, inclusive.

Years.	Grand total of school expenditures.	Average daily attendance.	Cost per pupil.	Years.	Grand total of school expenditures.	Average daily attendance.	Cost per pupil.
1908.....	\$1,911,408	33,931	\$56.33	1913.....	\$2,856,243	42,830	\$67.25
1909.....	2,851,655	35,541	80.24	1914.....	2,839,150	44,388	63.98
1910.....	3,464,991	36,774	94.22	1915.....	3,293,033	46,562	71.37
1911.....	3,522,479	37,796	93.35	1916.....	3,094,572	46,962	66.08
1912.....	3,544,834	40,448	87.64				

TABLE 67.—Total cost conducting schools; cost per pupil, for the years 1908 to 1909, inclusive.

Years.	Total cost conducting schools.	Cost per pupil.	Years.	Total cost conducting schools.	Cost per pupil.
1908.....	\$1,502,710	\$44.29	1913.....	\$1,896,413	\$44.28
1909.....	1,672,271	47.05	1914.....	1,969,400	44.37
1910.....	1,559,659	42.41	1915.....	2,095,147	48.60
1911.....	1,821,456	48.27	1916.....	2,181,466	48.55
1912.....	1,857,888	45.93			

TABLE 68.—Total expenditures for debt service and cost per pupil, for the years 1908 to 1916, inclusive.

Years.	Total expenditures capital outlays.	Cost per pupil.
1908.....	\$119,659	\$3.53
1909.....	146,516	4.12
1910.....	223,773	6.08
1911.....	274,197	7.26
1912.....	310,670	7.68
1913.....	343,323	8.01
1914.....	399,720	9.00
1915.....	610,997	13.12
1916.....	599,874	12.80

TABLE 69.—Total expenditures in capital outlay and cost per pupil, for the years 1908 to 1916, inclusive.

Years.	Total expenditures capital outlays.	Cost per pupil.
1908.....	\$289,039	\$8.52
1909.....	1,032,868	29.06
1910.....	1,681,559	45.72
1911.....	1,426,826	37.81
1912.....	1,376,276	34.02
1913.....	640,507	15.00
1914.....	470,030	10.59
1915.....	616,979	13.25
1916.....	313,232	6.70

TABLE 70.—Cost per pupil based on (1) grand total of school expenditures segregated into (2) total cost conducting schools, (3) total expenditures for debt service, (4) total expenditures capital outlays, for the years 1908 to 1916, inclusive.

Years.	Cost per pupil based on grand total of school expenditures.	Cost per pupil based on total cost conducting schools.	Cost per pupil based on total expenditures for debt service.	Cost per pupil based on total expenditures in capital outlays.
1908.....	\$56.33	\$44.29	\$3.53	\$8.52
1909.....	80.24	47.05	4.12	29.06
1910.....	94.22	42.41	6.08	45.72
1911.....	93.35	48.27	7.26	37.81
1912.....	87.64	45.93	7.68	34.02
1913.....	67.25	44.28	8.01	15.00
1914.....	63.96	44.37	9.00	10.59
1915.....	71.37	45.00	13.12	13.25
1916.....	66.03	46.55	12.80	6.70

TABLE 71.—Expenses general control—Showing total expenses general control segregated into business administration general control, educational administration general control, cost per pupil total expenses general control, for the years 1908 to 1916, inclusive.

Years.	Total cost general control.	Cost of business administration.	Cost of educational administration.	Cost per pupil total expenses general control.
1908.....	\$73,981	\$51,315	\$22,666	\$3.18
1909.....	64,286	44,479	20,817	1.81
1910.....	65,896	50,143	20,753	1.79
1911.....	65,189	50,824	17,315	1.81
1912.....	69,136	49,741	18,395	1.68
1913.....	62,631	43,460	19,161	1.45
1914.....	61,668	43,780	18,888	1.39
1915.....	63,773	43,994	18,779	1.36
1916.....	66,168	48,070	28,138	1.41

TABLE 72.—Expenses of instruction—Showing total cost of instruction segregated into cost of supervision, cost of teaching, cost per pupil on total cost instruction, for the years 1908 to 1916, inclusive.

Years.	Total cost of instruction.	Cost of supervision.	Cost of teaching.	Cost per pupil on total cost instruction.
1908.....	\$1,245,938	\$161,774	\$1,084,164	\$36.72
1909.....	1,364,525	207,075	1,157,450	38.39
1910.....	1,353,016	191,040	1,161,976	36.79
1911.....	1,462,630	185,888	1,276,742	38.77
1912.....	1,518,315	221,918	1,296,397	37.64
1913.....	1,554,002	217,680	1,336,322	36.28
1914.....	1,622,164	220,080	1,402,084	36.57
1915.....	1,674,572	220,475	1,454,097	35.96
1916.....	1,783,674	232,558	1,551,116	38.06

TABLE 73.—Expenses of operation of school plant—Showing total cost of operation and cost per pupil, for the years 1908 to 1916, inclusive.

Years.	Total expense of operation.	Cost per pupil on total operation of plant.
1908.....	\$87,206	\$2.57
1909.....	95,541	2.89
1910.....	100,722	2.74
1911.....	112,467	3.00
1912.....	132,260	3.27
1913.....	140,327	3.28
1914.....	135,602	3.06
1915.....	170,875	3.67
1916.....	164,632	3.51

TABLE 74.—Expenses of maintenance of school plant—Showing total cost of maintenance of school plant and maintenance per pupil, for the years 1908 to 1916, inclusive.

Years.	Total cost of maintenance.	Total cost of maintenance, per pupil.
1908.....	\$83,673	\$2.46
1909.....	134,375	3.78
1910.....	14,877	.40
1911.....	152,530	4.04
1912.....	116,545	2.88
1913.....	119,459	2.79
1914.....	128,498	2.89
1915.....	168,159	3.61
1916.....	145,900	3.11

TABLE 75.—Expenses of auxiliary agencies and sundry activities—Showing total cost of auxiliary agencies and sundry activities segregated into community lectures, social centers; total cost per pupil on auxiliary agencies and sundry activities for the years 1908 to 1916, inclusive.

Years.	Total expense of auxiliary agencies and sundry activities.	Expenses of community lectures.	Expenses of social centers.	Total cost per pupil for auxiliary agencies and sundry activities.
1908.....	\$350	\$350	0	\$0.010
1909.....	0	0	0	0
1910.....	0	0	0	0
1911.....	226	226	0	.005
1912.....	95	95	0	0
1913.....	886	886	0	.020
1914.....	1,731	1,731	0	.038
1915.....	0	0	0	0
1916.....	1,067	60	\$1,897	.041

NOTE.—A reference to the classification of accounts given in preceding pages of this report shows that there are 12 accounts under the schedule heading, "Expenses of Auxiliary Agencies and Sundry Activities." These accounts are as follows: Libraries; library books; promotion of health; transportation of pupils; care of children in institutions; provision for school lunches; community lectures; social centers; recreation; other auxiliary agencies and sundry activities; payments to private schools; and payments to schools of other civil divisions.

Attention is called to this for the purpose of emphasizing the fact that the exhibit in the table shows that San Francisco has not been carrying any of the burdens that some of these accounts might have imposed upon the city; nor has it been availing itself of the opportunity to expand its high-school libraries, to promote its health activities, to develop its school lunches, to provide for proper recreation, and to expand its community and social center work. It will be noticed that the 2 last-named accounts are the only 2 out of the entire 12 where the city has spent anything at all.

TABLE 76.—Total expenses of fixed charges, and the same segregated into cost of pensions, of rent, of insurance, taxes—Cost per pupil, based on total cost of fixed charges, for the years 1908 to 1916, inclusive.

Years.	Total cost of fixed charges.	Cost of pensions. ¹	Cost of rent.	Cost of insurance.	Taxes.	Cost per pupil.
1908.....	\$11,562	\$3,000	\$8,167	\$395	0	\$1.34
1909.....	13,534	5,020	7,514	0	0	.28
1910.....	25,148	15,316	9,807	225	0	.26
1911.....	26,264	15,849	9,044	323	\$48	.67
1912.....	22,577	16,405	5,800	353	0	.26
1913.....	19,028	16,657	2,168	203	0	.44
1914.....	18,647	15,350	2,895	365	66	.42
1915.....	18,799	15,959	2,408	290	112	.40
1916.....	19,045	16,570	1,596	879	0	.40

¹ Consists of deductions from teachers' salaries.

A similar table for the debt service account is not available, since the items are not segregated in the system of accounting.

TABLE 77.—Total expense in capital outlay, and the same segregated into costs of land, of new buildings, of alterations to old buildings, and of equipment—Cost per pupil based on total expenditures in capital outlay, for the years 1908 to 1916, inclusive.

Years.	Total cost of capital outlay.	Cost of land.	Cost of new buildings.	Cost of alterations to old buildings.	Cost of equipments.	Cost per pupil on total expenditures in capital outlay.
1908.....	\$289,039	\$39,725	\$225,714	0	\$23,600	\$8.52
1909.....	1,032,868	376,811	631,806	0	24,252	29.06
1910.....	1,681,699	272,593	1,272,378	\$118,070	18,518	45.72
1911.....	1,426,826	82,450	1,274,130	0	70,246	37.81
1912.....	1,376,276	185,298	1,179,911	0	11,067	34.02
1913.....	640,507	82,682	542,183	0	15,642	15.00
1914.....	470,030	5,000	453,566	0	11,464	10.89
1915.....	616,979	21,938	564,440	0	30,601	13.25
1916.....	313,232	47,814	216,094	0	49,324	6.70

TABLE 78.—Showing amount per pupil, (1) grand total school expenditures, and of the same segregated into the following accounts: (2) general control, (3) instruction, (4) operation of school plant, (5) maintenance of school plants, (6) auxiliary agencies and sundry activities, (7) fixed charges, (8) debt service, (9) capital outlay.

Years.	Amount per pupil of grand total expenditures.	Cost per pupil of general control.	Cost per pupil of instruction.	Cost per pupil of operation of school plant.	Cost per pupil of maintenance of school plant.	Cost per pupil of auxiliary agencies and sundry activities.	Cost per pupil of fixed charges.	Cost per pupil of debt service.	Cost per pupil of capital outlay.
1908.....	\$56.33	\$2.18	\$36.72	\$2.57	\$2.46	0	\$0.24	\$3.53	\$8.52
1909.....	50.24	1.81	38.39	2.09	3.78	0	.38	4.12	29.06
1910.....	94.22	1.79	38.79	2.74	.40	0	.68	5.08	45.72
1911.....	92.35	1.81	38.77	3.00	4.04	\$0.005	.67	7.26	37.81
1912.....	37.64	1.68	37.64	3.27	2.58	0	.56	7.68	34.02
1913.....	67.25	1.46	36.28	3.28	2.79	.029	.44	8.01	15.00
1914.....	63.96	1.39	36.57	3.08	2.89	.088	.42	9.00	10.89
1915.....	71.37	1.35	35.96	3.67	3.61	0	.49	13.12	13.25
1916.....	66.03	1.41	38.06	3.51	3.11	.041	.46	12.80	6.70

Table 79.—Comparative summary of disbursements for the years 1908 to 1916, inclusive, for all accounts itemized.

	1908	1909	1910	1911	1912	1913	1914	1915	1916
Total cost.									
General school control.....	873,891	864,296	865,896	868,139	868,126	862,651	861,068	862,772	868,198
Instruction, all schools.....	1,417,928	1,364,525	1,353,016	1,462,830	1,518,315	1,554,002	1,623,164	1,674,572	1,726,873
Operation school plant.....	87,208	85,541	100,722	112,467	132,250	140,387	135,692	170,875	184,832
Maintenance school plant.....	83,476	134,376	14,877	152,530	116,545	119,456	128,466	168,158	145,980
Supplies and sundries.....	83,350	0	25,146	25,284	95	896	1,731	0	1,937
Fixed charges, all schools.....	11,562	13,534	0	0	22,357	19,028	18,647	18,766	19,045
Total cost conducting schools.....	1,502,710	1,672,271	1,509,659	1,621,459	1,857,868	1,896,413	1,969,400	2,086,147	2,181,466
Debt service.....	119,659	146,516	223,773	274,107	310,270	343,323	399,720	610,997	566,874
Capital outlays.....	289,039	1,032,868	1,861,559	1,428,828	1,376,276	640,307	470,050	616,979	315,232
Grand total disbursements.....	1,911,408	2,851,655	3,464,991	3,552,479	3,544,834	2,880,243	2,839,150	3,323,123	3,094,572
Average daily attendance.....	33,931	35,541	36,774	37,736	40,448	42,820	44,388	44,562	46,862
Cost per pupil, all schools.....	\$56.33	\$80.24	\$94.22	\$93.35	\$87.64	\$67.25	\$63.98	\$71.97	\$65.85
Cost per pupil conducting.....	\$41.29	\$47.05	\$42.41	\$48.27	\$45.93	\$44.28	\$44.37	\$45.00	\$44.53
Cost per pupil for debt service.....	\$17.25	\$4.12	\$6.98	\$7.26	\$7.68	\$8.01	\$6.02	\$13.12	\$12.80
Cost per pupil capital outlay.....	\$8.57	\$29.05	\$45.72	\$37.81	\$34.02	\$15.00	\$10.59	\$13.25	\$9.70
Number of teachers.....	1,093	1,195	1,196	1,227	1,308	1,423	1,478	1,485	1,520
Average daily pupils per teacher.....	86	82	85	81	81	80	80	81	81
Number of schools.....	381	386	387	377	385	408	427	448	448
Average daily attendance per school.....	86	82	85	81	81	80	80	81	81
Estimated population of San Francisco.....	381	386	416,912	416,912	416,912	416,912	416,912	416,912	416,912
Cost of conducting schools per inhabitant.....	\$5.01	\$7.40	\$8.28	\$8.28	\$8.50	\$6.91	\$6.81	\$7.95	\$7.42

1 Estimated.

TABLE 80.—Assessed valuation, rate of taxation per \$100, school-tax rate per \$100, estimated value of all school property, for the years 1908 to 1916, inclusive.

Years.	Municipal and State assessment.	City-tax rate per \$100.	School-tax rate per \$100.	Estimated value all school property.
1908.....	\$429,611,618	\$1.415	\$0.205	\$6,879,000
1909.....	454,334,100	1.50	.209	7,205,678
1910.....	492,867,087	1.60	.188	8,729,385
1911.....	515,028,100	1.647	.1747	10,161,482
1912.....	545,064,347	2.00	.235	12,883,329
1913.....	604,813,249	2.05	.224	11,983,687
1914.....	628,847,729	2.20	.208	12,600,322
1915.....	647,207,614	2.26	.222	13,721,189
1916.....	656,244,229	2.26	.265	14,020,948

PER CENT INCREASES FROM 1908 TO 1916.

From the tables found in the preceding pages certain items have been selected and reduced to a per cent basis in order to show the relative increases from 1908 to 1916. These figures are presented in Table 81 and Figures 38 and 39, and show the per cent increases in: (1) Average daily attendance of pupils in public schools in San Francisco; (2) number of teachers employed; (3) number of schools; (4) total cost of conducting the school system per pupil (exclusive of debt service and capital outlay); (5) total receipts for school purposes; (6) total expenditures for school purposes; (7) estimated value of school property; (8) municipal and State assessment of property in San Francisco. In each column the figure for 1908 is used as 100 per cent base.

TABLE 81.—Per cent increase in certain items, San Francisco, 1908 to 1916 (with 1908 as the standard).

Years.	Average daily attendance of pupils.	Number of teachers employed.	Number of school buildings used.	Total cost of conducting school system per pupil.	Total receipts for school purposes.	Total expenditures for school purposes.	Estimated value of school property.	Municipal and State assessment within city and county.
1908.....	100	100	100	100	100	100	100	100
1909.....	104.7	109.1	108.3	106.2	233	148.1	112.9	106.7
1910.....	108.4	109.4	106.7	96.7	180.7	181.2	126.9	114.6
1911.....	111.2	112.1	112.3	108.9	168.6	184.2	120.3	118.8
1912.....	119.2	119.5	117.9	103.7	170.8	185.4	196.5	128.8
1913.....	126.2	120	117.9	99.9	178.7	180.6	187.8	140.7
1914.....	130.8	125	118.8	100.1	207.9	148.5	197.5	148.2
1915.....	137.2	128.6	118.8	101.6	158.3	173.8	215.1	180.6
1916.....	138.1	128.8	117.9	106.1	171.7	161.9	219.8	182.7

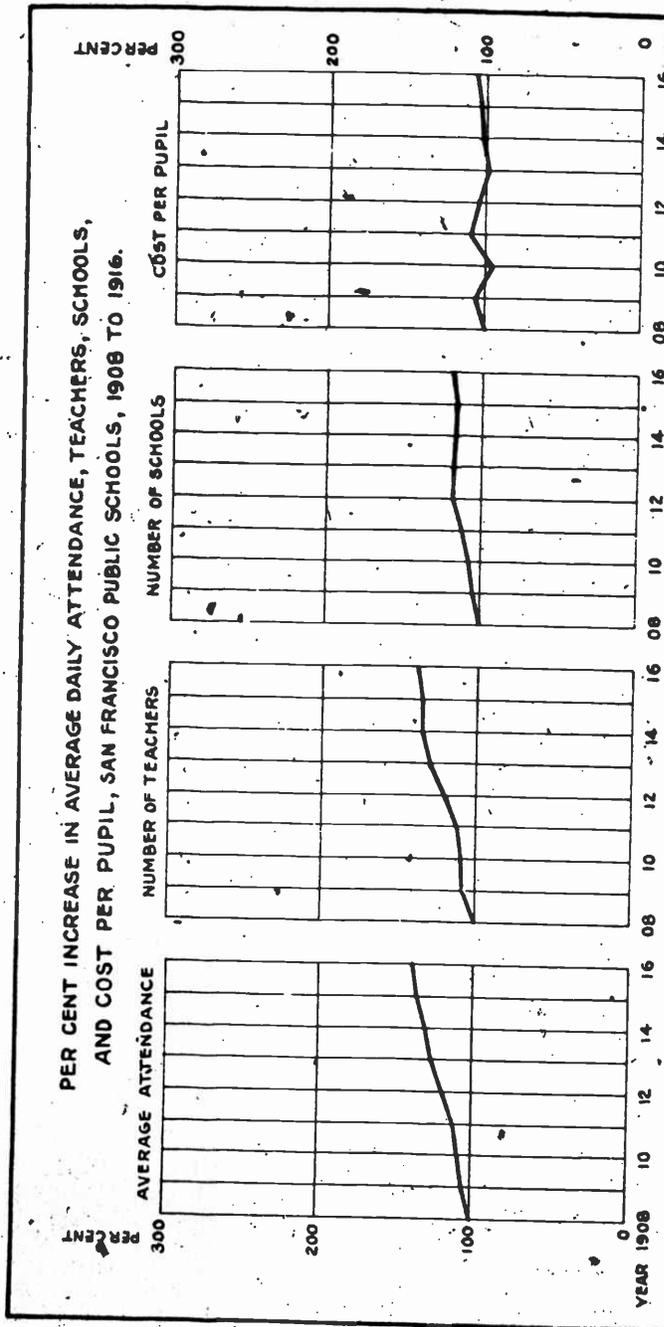


FIGURE 38.—The figures for average attendance of pupils, number of teachers employed, number of schools, and cost of conducting the schools per pupil for the years 1908 to 1916, inclusive, are expressed in per cent of increase or decrease, using the corresponding figures for 1908 as bases, 100 per cent. (Comparing Figure 38 with Figure 29, it is evident that school receipts and school expenditures have not shown the same consistent upward tendency observable in pupil attendance and number of teachers employed.)

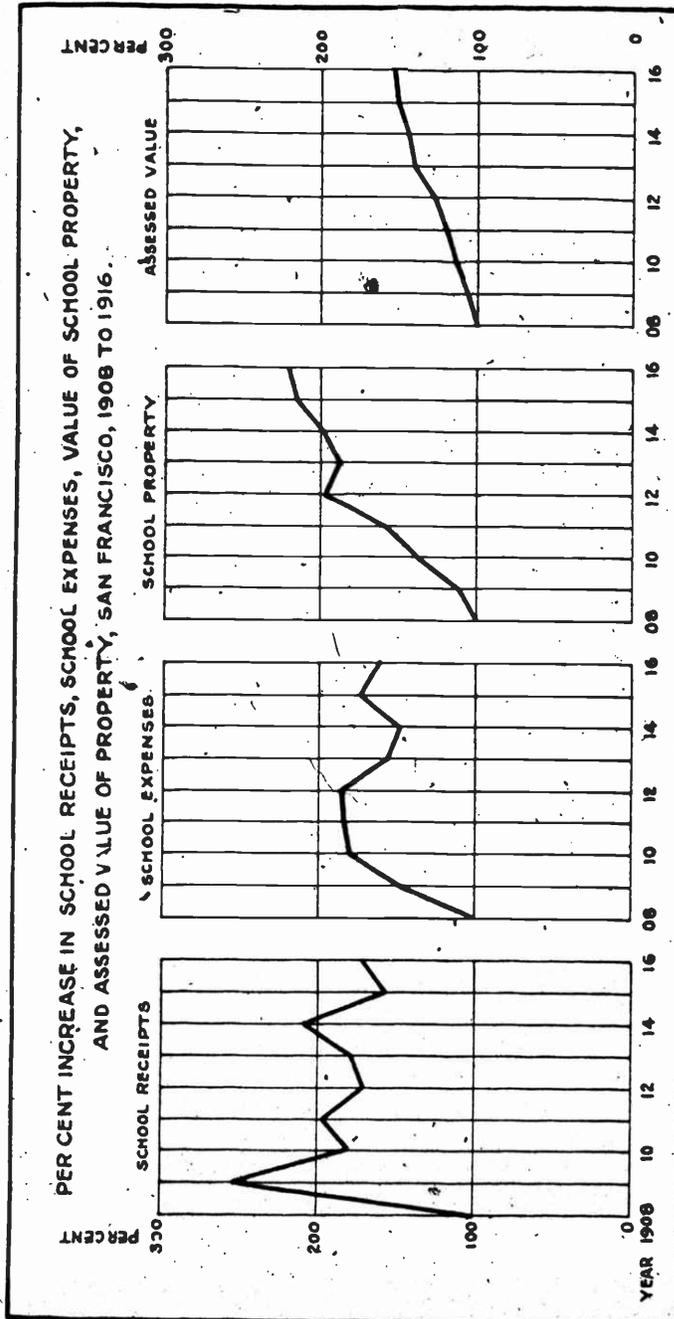


FIGURE 30.—The figures for total school receipts, total school expenditures, estimated value of school property, and assessed valuation of property in the city and county for the years 1908 to 1916, inclusive are expressed in per cent of increase or decrease, using the corresponding figures for 1908 as base, 100 per cent. A practically stationary cost per pupil shows that the school system has not kept pace with rising prices and the legitimate demands of improvements in methods and equipment.

A study of Table 81 and Figures 38 and 39 brings out clearly the following facts:

(1) There have been steady increases in average daily attendance of pupils and in number of teachers employed since 1908.

(2) There have not been corresponding and consistent increases in total receipts and total expenditures for school purposes.

(3) In only two years since 1910 have the total receipts equaled the sum reached in that year, and the general tendency since 1910 has been retrogressive.

(4) The total expenditures for school purposes show only slight increases in two years subsequent to 1910, and the general tendency since 1912 has been distinctly retrogressive.

(5) As a corollary to these conditions the cost of conducting the schools per pupil has remained practically stationary since 1908. General increases in prices of commodities during the past nine years and adjustment of the school system to a reasonable degree of improvement in methods and equipment should have caused a greater increase in the cost per pupil since 1908.

(6) Although the estimated value of school property has increased over 100 per cent during the nine years (more than twice the increase in assessed valuation of property in the city and county), it is to be noted that the number of schools has increased less than 20 per cent. The extent to which the board of education has acquired income-producing property, unimproved building lots, and other property not devoted directly to instructional uses must be made clear before the real situation as to provision for the needs of the school children becomes apparent. A fluctuating basis of estimate may account in part for the discrepancy between the increase in number of schools and value of school property. The survey commission lacked facilities for complete analysis of this problem.

SAN FRANCISCO COMPARED WITH OTHER CITIES.

To assist in an understanding of the problems of school finance in San Francisco, the tables presented in the following pages have been prepared. San Francisco is compared with the nine other cities having a population of 300,000 to 500,000 in 1915 in respect to certain selected items of municipal expenditures and public-school control.

TABLE 82.—Value at close of fiscal year of land, buildings, and equipment employed or held for specified purposes, total for all general departments and for certain general departments, 10 cities, 1915.¹

Cities.	Total.	Police department.	Fire department.	Public schools.	Recreation.
Buffalo.....	\$49,804,616	\$570,765	\$1,530,902	\$9,717,614	\$11,158,867
San Francisco.....	56,437,500	1,678,000	8,528,000	12,595,000	19,644,500
Los Angeles.....	29,229,614	269,194	1,942,753	10,162,830	10,910,809
Milwaukee.....	23,436,215	748,570	4,498,720	6,139,669	7,708,890
Cincinnati.....	32,150,785	395,812	1,988,262	10,739,804	7,502,723
Newark.....	28,689,331	567,338	1,491,610	10,191,824	9,541,489
New Orleans.....	15,712,251	121,487	1,295,000	3,556,000	3,645,680
Washington.....	24,927,007	403,541	1,273,835	12,124,738	4,613,283
Minneapolis.....	23,559,472	120,034	1,169,490	7,789,556	7,781,080
Seattle.....	28,153,077	63,439	1,693,270	6,803,399	9,640,623
Average.....	28,709,886	493,818	2,181,182	8,900,968	9,312,812

¹ From Financial Statistics of Cities having a Population of over 30,000, 1915, Bureau of the Census.

Table 82 shows the value at the close of the fiscal year 1915 of land, buildings, and equipment employed or held for specified purposes for certain departments of the general departmental service, for 10 cities. From this table are derived the comparisons presented in the following pages.

TABLE 83.—Value at close of fiscal year of land, buildings, and equipment employed or held for specified purposes, total for all general departments, 10 cities, 1915.

1. SAN FRANCISCO.....	\$56,437,500
2. Cincinnati.....	32,150,785
3. Buffalo.....	29,804,616
4. Los Angeles.....	29,229,614
5. Newark.....	28,689,331
6. Washington.....	24,927,007
7. Minneapolis.....	23,559,472
8. Milwaukee.....	23,436,210
9. Seattle.....	23,152,077
10. New Orleans.....	15,712,251
Average.....	28,709,886

San Francisco possesses more municipal property devoted to general governmental purposes than any other city in the list, and nearly twice as much as the average for the 10 cities, Table 83.

TABLE 84.—Value at close of fiscal year of land, buildings, and equipment employed or held for use of police department, 10 cities, 1915.

1. SAN FRANCISCO.....	\$1,678,000
2. Milwaukee.....	748,570
3. Buffalo.....	570,765
4. Newark.....	567,338
5. Washington.....	403,541
6. Cincinnati.....	395,812
7. Los Angeles.....	269,194
8. New Orleans.....	121,487
9. Minneapolis.....	120,034
10. Seattle.....	63,439
Average.....	493,818

The value of property employed or held for the use of the police department in San Francisco is nearly three and one-half times as much as the average for the 10 cities, Table 84.

TABLE 85.—Value at close of fiscal year of land, buildings, and equipment employed or held for use of fire department, 10 cities, 1915.

1. SAN FRANCISCO.....	\$8,528,000
2. Cincinnati.....	1,988,262
3. Seattle.....	1,693,270
4. Buffalo.....	1,530,902
5. Milwaukee.....	1,498,720
6. Newark.....	1,491,610
7. Los Angeles.....	1,312,763
8. New Orleans.....	1,295,000
9. Washington.....	1,273,835
10. Minneapolis.....	1,169,460
Average.....	2,181,182

The value of property employed or held for the use of the fire department in San Francisco is nearly four times as much as the average for the 10 cities, Table 85.

TABLE 86.—Value at close of fiscal year of land, buildings, and equipment employed or held for use of public-school department, 10 cities, 1915.

1. SAN FRANCISCO.....	\$12,585,000
2. Washington.....	12,124,738
3. Cincinnati.....	10,739,804
4. Newark.....	10,191,384
5. Los Angeles.....	10,162,830
6. Buffalo.....	9,717,614
7. Minneapolis.....	7,789,556
8. Seattle.....	6,803,289
9. Milwaukee.....	6,139,669
10. New Orleans.....	3,556,000
Average.....	8,980,988

On the other hand, the value of property employed or held for public-school purposes in San Francisco, while greater than the amount in any other city, is only 16.4 per cent greater than the average for the next 4 cities, \$10,804,689, and only 40.1 per cent greater than the average for the 10 cities, Table 86.

TABLE 87.—Value at close of fiscal year of land, buildings, and equipment employed or held for recreational purposes, 10 cities, 1915.

1. SAN FRANCISCO.....	\$19,644,500
2. Buffalo.....	11,158,857
3. Los Angeles.....	10,910,809
4. Newark.....	9,541,459
5. Seattle.....	9,040,622
6. Minneapolis.....	7,061,570
7. Milwaukee.....	7,706,890
8. Cincinnati.....	7,302,732
9. New Orleans.....	5,645,960
10. Washington.....	4,513,253
Average.....	9,313,812

In value of property employed or held for recreational purposes, San Francisco ranks first in the list, the amount being more than twice the average for the 10 cities, Table 87.

TABLE 88.—Funded and special assessment debts at close of fiscal year, total for all purposes, 10 cities, 1915.

1. Cincinnati.....	\$74,082,532
2. Newark.....	48,829,808
3. Los Angeles.....	46,638,330
4. SAN FRANCISCO.....	42,635,800
5. Seattle.....	42,031,032
6. Buffalo.....	38,822,434
7. New Orleans.....	38,729,138
8. Minneapolis.....	25,699,841
9. Milwaukee.....	15,704,250
10. Washington.....	6,518,000
Average.....	37,969,116

San Francisco ranks fourth in the list of cities in total amount of indebtedness for all purposes, Table 88 and Figure 40. The amounts

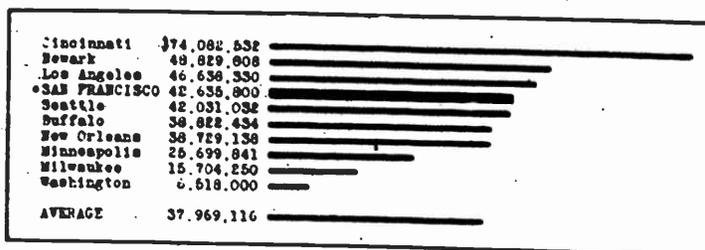


FIGURE 40.—Municipal indebtedness, total for all purposes.

reported for 6 of the 10 cities are included between \$38,000,000 and \$49,000,000.

TABLE 89.—Per capita funded and special assessment debts at close of fiscal year, total for all purposes, 10 cities, 1915.

1. Cincinnati.....	\$159.34
2. Seattle.....	134.27
3. Newark.....	125.49
4. New Orleans.....	107.21
5. Los Angeles.....	103.15
6. SAN FRANCISCO.....	94.27
7. Buffalo.....	84.81
8. Minneapolis.....	74.56
9. Milwaukee.....	37.42
10. Washington.....	18.30
Average.....	96.20

Comparing the cities on a per capita basis, San Francisco ranks sixth in indebtedness for all purposes, Table 89 and Figure 41. The

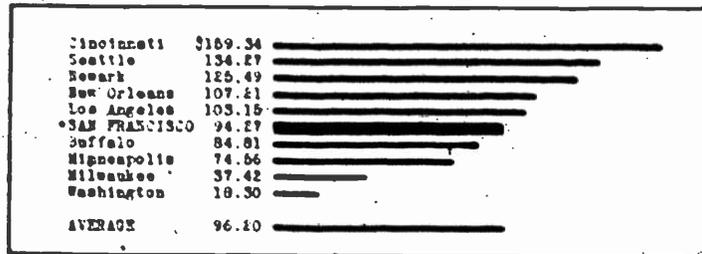


FIGURE 41.—Municipal indebtedness for all purposes, per capita of population.

average for the first three cities in the list, \$139.70, is 48 per cent greater than the amount in San Francisco.

TABLE 90.—Funded and special assessment debts at close of fiscal year, total for school buildings, 10 cities, 1917.

1. Newark	\$8,698,200
2. Buffalo	6,988,723
3. Los Angeles	6,562,050
4. SAN FRANCISCO	6,060,100
5. Minneapolis	6,030,000
6. Cincinnati	5,155,618
7. Seattle	4,904,000
8. Milwaukee	2,984,178
9. New Orleans	1,590,305
10. Washington	.....
Average	4,894,317

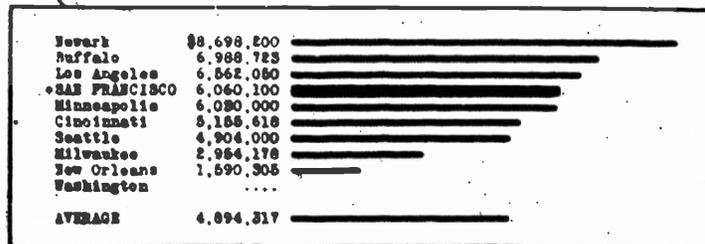


FIGURE 42.—Municipal indebtedness for school buildings.

San Francisco ranks fourth in indebtedness for school buildings, the amount reported being 23.8 per cent greater than the average for the 10 cities, Table 90 and Figure 42.

TABLE 91.—Per capita funded and special assessment debts at close of fiscal year, total for school buildings, 10 cities, 1915.

1. Newark.....	\$22.35
2. Minneapolis.....	17.53
3. Seattle.....	15.66
4. Buffalo.....	15.27
5. Los Angeles.....	14.55
6. SAN FRANCISCO.....	13.39
7. Cincinnati.....	12.81
8. Milwaukee.....	7.04
9. New Orleans.....	4.40
10. Washington.....	
Average.....	12.40

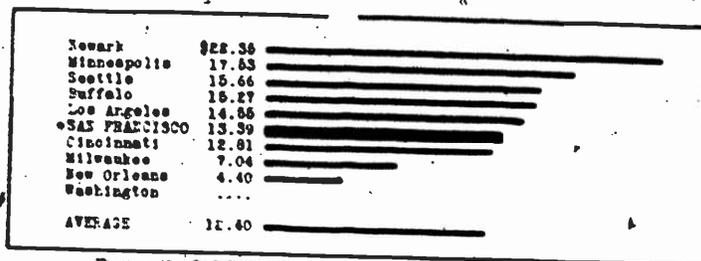


FIGURE 43.—Indebtedness for school buildings per capita of population.

On a per capita basis, however, San Francisco ranks sixth in the list, Table 91 and Figure 43. The average of the first two cities in the list, \$19.94, is 49 per cent greater than the amount in San Francisco.

TABLE 92.—Funded and special assessment debts at close of fiscal year, total for all purposes other than school buildings, 10 cities, 1915.

1. Cincinnati.....	\$68,926,914
2. Newark.....	40,131,608
3. Los Angeles.....	40,076,280
4. New Orleans.....	27,138,833
5. Seattle.....	37,127,032
6. SAN FRANCISCO.....	36,575,700
7. Buffalo.....	31,833,711
8. Minneapolis.....	19,669,841
9. Milwaukee.....	12,750,072
10. Washington.....	6,518,000
Average.....	33,074,799

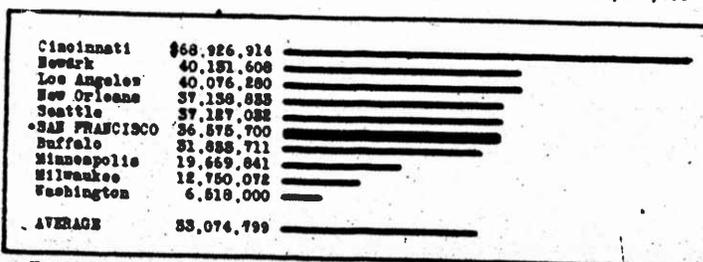


FIGURE 44.—Municipal indebtedness, total for all purposes other than school buildings.

150 THE PUBLIC SCHOOL SYSTEM OF SAN FRANCISCO.

Eliminating school buildings, San Francisco ranks sixth in the amount of indebtedness for all other purposes, Table 92 and Figure

TABLE 93.—Per capita funded and special assessment debts at close of fiscal year, total for all purposes other than school buildings, 10 cities, 1915.

1. Cincinnati.....	\$146.53
2. Seattle.....	118.61
3. Newark.....	103.14
4. New Orleans.....	102.81
5. Los Angeles.....	88.60
6. SAN FRANCISCO.....	80.88
7. Buffalo.....	69.54
8. Minneapolis.....	57.03
9. Milwaukee.....	30.38
10. Washington.....	18.30
Average.....	88.80

44. Only one city, however, reports indebtedness of more than 10 per cent in excess of the amount in San Francisco.

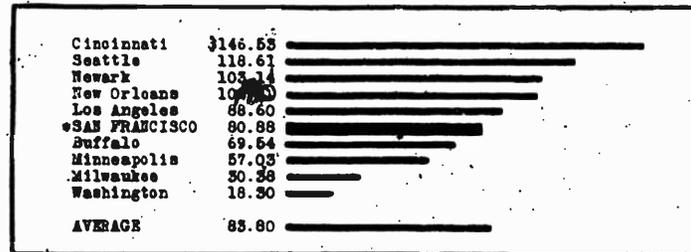


FIGURE 45.—Municipal indebtedness, total for all purposes other than school buildings, per capita of population.

San Francisco ranks sixth also in per capita indebtedness for all purposes other than school buildings, Table 93 and Figure 45. The average for the first two cities, \$132.57, is 63.9 per cent greater than the amount in San Francisco.

TABLE 94.—Expenditures of public-school department, by principal items, 10 cities, 1915-16.¹

Items of expenditure.	Buffalo.	San Francisco.	Los Angeles.	Milwaukee.	Cincinnati.	Newark.	New Orleans.	Washington.	Minneapolis.	Seattle.	Average.
A. (I. Business administration..... II. Educational administration.....)	817,694 86,838	848,137 28,612	\$176,412 48,146	829,077 34,418	836,138 29,128	865,393 61,100	814,988 17,290	823,758 20,226	849,260 44,641	847,840 28,680	860,780 87,108
Total, general control (A+I).	77,342	78,749	294,669	63,486	65,263	124,459	32,278	43,984	93,910	74,830	87,889
B. (I. Supervision, day schools..... II. Teaching, day schools.....)	177,684 1,903,311	172,090 1,681,802	403,824 3,371,820	199,350 1,481,849	..... .....	240,282 2,196,779	127,106 885,189	134,124 1,856,478	175,743 1,896,454	146,698 1,890,358	197,417 1,881,704
Total, instruction, day schools (B+II).	2,080,865	1,722,701	3,775,144	1,881,189	.....	2,438,041	1,012,286	1,993,602	2,012,197	1,827,066	2,046,900
C. (I. Supervision, evening schools..... II. Teaching, evening schools.....)	10,839 78,068	6,640 67,836	12,497 116,145	15,212 48,562	.....	12,885 94,890	1,845 15,763	2,393 15,183	2,570 21,864	2,684 22,630	7,443 88,288
Total, instruction, evening schools (C+II).	88,634	72,876	128,642	64,806	.....	108,476	17,618	18,576	24,824	26,314	66,889
Total, instruction, day and evening schools (B+C).	2,169,499	1,797,576	3,903,786	1,946,004	1,906,616	2,544,516	1,029,913	2,012,178	2,036,721	1,853,370	2,089,697
D. Operation of school plant.....	390,981	171,074	382,828	268,123	210,740	282,874	84,129	208,041	299,939	208,496	247,108
E. Maintenance of school plant.....	176,894	137,465	216,788	204,233	226,621	68,788	48,128	122,647	221,781	76,820	181,478
F. Auxiliary agencies.....	62,057	18,508	88,482	41,179	22,613	47,412	6,859	19,922	28,433	19,022	32,789
G. Fixed charges.....	14,767	5,620	448,624	19,282	46,528	6,412	23,886	31,568	2,108	89,017	96,128
Total current expenses (A+B+C+D+E+F+G).	2,888,200	2,206,912	5,224,944	2,649,817	2,458,188	3,086,476	1,228,197	2,497,388	2,679,880	2,014,267	2,678,016
H. Debt service.....	457,049	665,960	.....	.....	.....	.....	.....	.....	.....	.....	.....
I. Capital outlay.....	635,877	325,615	2,167,008	719,374	303,743	611,241	718,866	32,771	3,600	827,322	245,194
Grand total expenses (A+B+C+D+E+F+G+H+I).	3,981,126	3,138,487	7,401,952	3,369,191	3,086,247	3,698,817	1,960,117	3,708,489	3,348,906	2,672,193	3,623,549

¹ From reports made directly to the United States Bureau of Education. The figures for San Francisco differ somewhat from those presented in Tables 58 to 76.

TABLE 95.—Expenses for general control of public schools, 10 cities, 1915-16.

1. Los Angeles.....	\$224,559
2. Newark.....	126,483
3. Minneapolis.....	93,910
4. Buffalo.....	77,342
5. SAN FRANCISCO.....	76,749
6. Seattle.....	74,530
7. Cincinnati.....	65,263
8. Milwaukee.....	63,495
9. Washington.....	43,984
10. New Orleans.....	32,278
Average.....	87,859

San Francisco ranks considerably below the average of the 10 cities in cost of general control of public schools, Table 95 and Figure

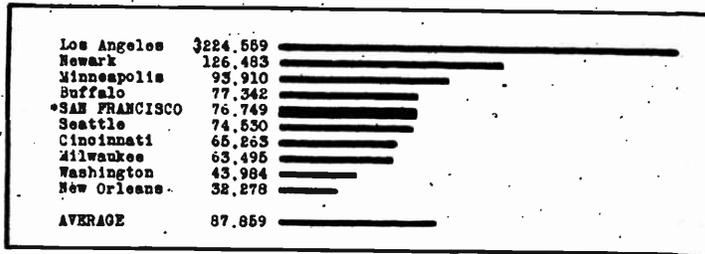


FIGURE 46.—Expenses for general control of public schools.

46. Newark spends 64.8 per cent more than San Francisco for this purpose and Los Angeles nearly three times as much.

TABLE 96.—Expenses for instruction, day schools, 9 cities, 1915-16.

1. Los Angeles.....	\$3,775,144
2. Newark.....	2,436,041
3. Buffalo.....	2,080,865
4. Minneapolis.....	2,012,197
5. Washington.....	1,993,602
6. Milwaukee.....	1,881,199
7. SAN FRANCISCO.....	1,723,701
8. Seattle.....	1,527,056
9. New Orleans.....	1,012,295
Average.....	2,046,900

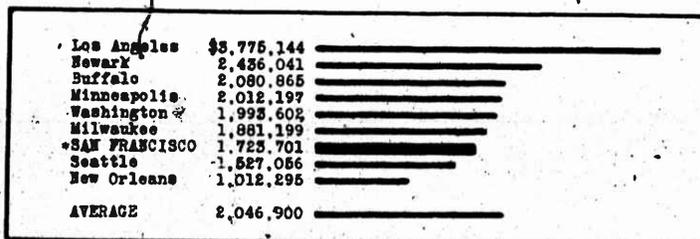


FIGURE 47.—Expenses for instruction, day schools.

San Francisco ranks seventh in the list of cities in cost of instruction in day schools, Table 96 and Figure 47. The average for the 10 cities is 18.7 per cent greater than in San Francisco, and the average for the first 3 cities is 60.3 per cent greater.

TABLE 97.—Expenses for instruction, evening schools, 9 cities, 1915-16.

1. Los Angeles.....	\$128,642
2. Newark.....	108,475
3. Buffalo.....	85,634
4. SAN FRANCISCO.....	73,875
5. Milwaukee.....	63,805
6. Seattle.....	26,314
7. Minneapolis.....	24,524
8. Washington.....	18,576
9. New Orleans.....	17,618
Average.....	60,827

As shown in Table 97 and Figure 48, San Francisco ranks somewhat above the average for the 10 cities in cost of instruction in

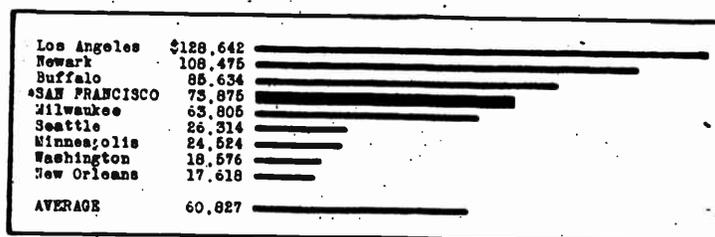


FIGURE 48.—Expenses for instruction in evening schools.

evening schools, but the average for the first 2 cities, \$118,558, is 60.4 per cent greater than the amount in San Francisco.

TABLE 98.—Expenses for instruction, day and evening schools, 10 cities, 1915-16.

1. Los Angeles.....	\$3,903,786
2. Newark.....	2,544,516
3. Buffalo.....	2,166,499
4. Minneapolis.....	2,036,721
5. Washington.....	2,012,178
6. Milwaukee.....	1,945,004
7. Cincinnati.....	1,906,516
8. SAN FRANCISCO.....	1,797,576
9. Seattle.....	1,553,370
10. New Orleans.....	1,029,913
Average.....	2,089,607

In cost of instruction in day and evening schools combined, Table 98 and Figure 49, San Francisco ranks eighth in the list. The aver-

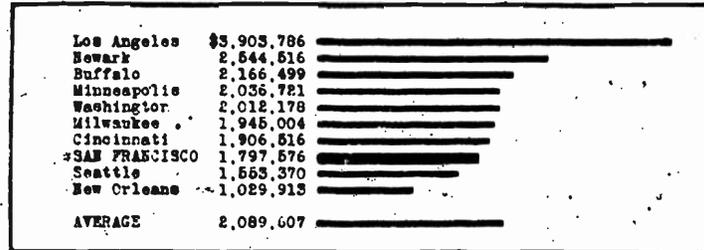


FIGURE 49.—Expenses for instruction, day and evening schools combined.

age for the 10 cities is 16.2 per cent greater than the amount in San Francisco, and the average for the first 3 cities is 59.7 per cent greater.

TABLE 99.—Total current expenses for public schools, 10 cities, 1915-16.

1. Los Angeles	\$5,234,944
2. Newark	3,085,476
3. Buffalo	2,888,200
4. Minneapolis	2,679,860
5. Milwaukee	2,549,817
6. Cincinnati	2,458,158
7. Washington	2,437,390
8. SAN FRANCISCO	2,206,912
9. Seattle	2,014,257
10. New Orleans	1,225,197
Average	2,678,015

In respect to total current expenses for public schools, Table 99 and Figure 50, San Francisco ranks eighth. The amount spent in

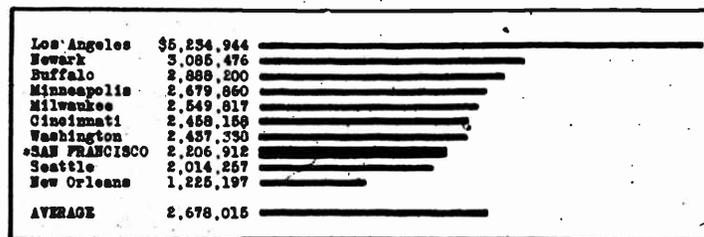


FIGURE 50.—Total current expenses for public schools.

Newark is 39.2 per cent greater than that in San Francisco, and the amount in Los Angeles is more than two and one-third times as much.

TABLE 100.—Grand total of expenses for public schools, 10 cities, 1915-16.

1. Los Angeles.....	\$7,401,952
2. Buffalo.....	3,981,126
3. Washington.....	3,708,459
4. Newark.....	3,696,817
5. Minneapolis.....	3,348,906
6. Milwaukee.....	3,269,191
7. SAN FRANCISCO.....	3,138,487
8. Cincinnati.....	3,068,247
9. Seattle.....	2,672,193
10. New Orleans.....	1,950,117
Average.....	3,623,549

As shown in Table 100 and Figure 51, San Francisco ranks seventh in respect to total expenditures for public schools. The average for the 10 cities is 15.4 per cent greater than the amount in San Francisco, and the amount in Los Angeles is more than twice as great.

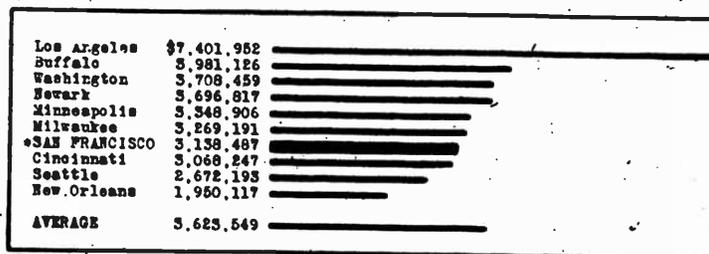


FIGURE 51.—Total expenses for public schools.

TABLE 101.—Per capita governmental cost payment for expenses of general departments, by principal divisions of the general departmental service, 10 cities, 1915.

Cities.	All general departments.	General govern-ments.	Police depart-ment.	Fire depart-ment.	Other protection to person and property. ¹	Conservation of health.	Sanitation or promotion of cleanliness.	Highways.	Charities, hospi-tals, correc-tion.	Public schools.	Public libraries.	Recreation. ²	Other. ³
Buffalo.....	\$22.84	\$2.53	\$2.46	\$2.42	\$0.46	\$1.11	\$1.50	\$2.92	\$1.88	\$5.28	\$0.86	\$0.86	\$0.61
San Francisco.....	24.15	3.55	3.41	3.78	.59	.42	1.30	2.52	2.12	4.61	.17	1.10	.60
Los Angeles.....	25.30	3.32	1.73	1.57	.87	.24	1.49	4.00	1.32	9.22	.34	.79	.83
Milwaukee.....	19.82	2.00	1.58	1.68	.32	.51	2.23	2.16	1.62	5.76	.28	.96	.72
Cincinnati.....	22.38	3.37	2.04	1.81	.28	.34	1.26	4.19	1.42	5.88	.30	.45	1.04
Newark.....	22.32	2.67	2.61	1.83	.24	.86	1.51	1.92	2.21	6.63	.31	.95	.76
New Orleans.....	13.46	1.88	1.24	1.45	.28	.37	2.56	1.66	.47	3.02	.10	.24	.19
Washington.....	26.91	2.27	2.72	1.86	.80	.43	1.95	3.11	4.64	6.94	.18	1.19	.51
Minneapolis.....	18.57	2.04	1.23	1.65	.36	.29	1.16	2.88	.94	5.43	.47	.64	.48
Seattle.....	20.15	3.27	1.72	2.58	.28	.53	1.62	2.28	.91	5.42	.55	.58	.46
Average.....	21.89	2.72	2.11	2.08	.46	.52	1.65	2.84	1.76	6.04	.29	.79	.61

¹ Includes payments for inspection of buildings, plumbing, weights and measures, electric wiring, boilers, elevators, gas, and other services.
² Includes operation and maintenance of museums, art galleries, zoological collections, conservatories, general recreation, parks, trees, and quasi-productive park enterprises.
³ Includes payments for objects that can not properly be assigned to any of the other principal divisions of the table, including soldiers' relief and burial, administration of public trust and investment funds, expenses of public commissions, pensions and gratuities, judgments and claims, and other payments.

TABLE 102.—Per capita governmental cost payments for expenses of general departments—Total for all departments: 10 cities, 1915.

1. Washington.....	\$26.91
2. Los Angeles.....	26.30
3. SAN FRANCISCO.....	24.15
4. Buffalo.....	22.84
5. Cincinnati.....	22.38
6. Newark.....	22.32
7. Seattle.....	20.15
8. Milwaukee.....	19.82
9. Minneapolis.....	18.57
10. New Orleans.....	13.46
Average.....	21.89

In per capita total cost of municipal government, for all departments, San Francisco ranks third in the list of cities, Table 102 and

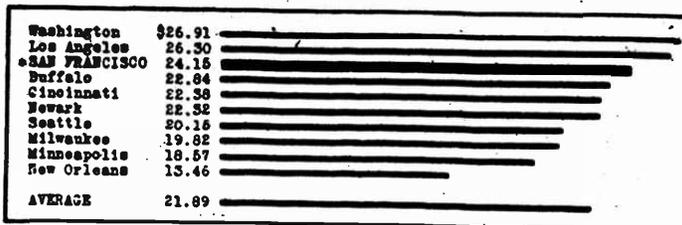


FIGURE 52.—Governmental costs, total for all general departments, per capita of population.

Figure 52. It costs 10.3 per cent more to govern San Francisco than the average for the 10 cities, and 34.1 per cent more than the average for the lowest 4 cities in the list, \$18.

TABLE 103.—Per capita cost payments for expenses of general government, 10 cities, 1915.

1. SAN FRANCISCO.....	\$3.56
2. Cincinnati.....	3.37
3. Los Angeles.....	3.32
4. Seattle.....	3.27
5. Newark.....	2.87
6. Buffalo.....	2.53
7. Washington.....	2.27
8. Minneapolis.....	2.04
9. Milwaukee.....	2.00
10. New Orleans.....	1.88
Average.....	2.72

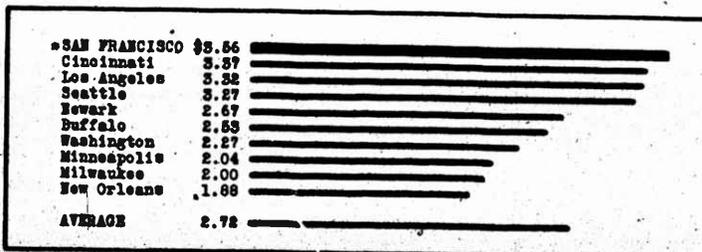


FIGURE 53.—Cost of municipal government, department of general government, per capita of population.

It costs more per capita for the department of general city government in San Francisco than in any other city in the list, Table 103 and Figure 53. The amount in San Francisco is 30.8 per cent greater than the average for the 10 cities, and 80 per cent greater than the average for the lowest 3 cities, \$1.97.

TABLE 104.—Per capita governmental cost payments for expenses of police department, 10 cities, 1915.

1. SAN FRANCISCO.....	\$3.41
2. Washington.....	2.72
3. Newark.....	2.61
4. Buffalo.....	2.46
5. Cincinnati.....	2.04
6. Los Angeles.....	1.73
7. Seattle.....	1.72
8. Milwaukee.....	1.58
9. New Orleans.....	1.24
10. Minneapolis.....	1.23
Average.....	2.11

The per capita cost of maintaining the police department in San Francisco is 61.6 per cent greater than the average for the 10 cities,

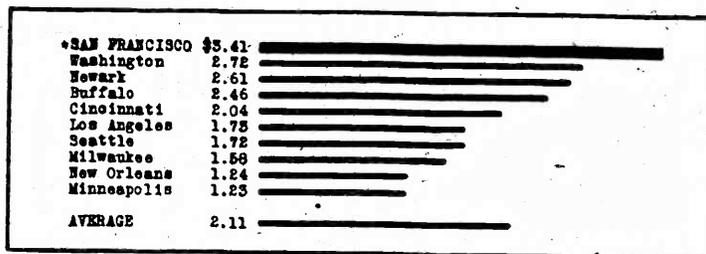


FIGURE 54.—Cost of police department per capita of population.

and more than two and three-fourths as much as the average for the lowest 2 cities in the list, \$1.235, Table 104 and Figure 54.

TABLE 105.—Per capita governmental cost payments for expenses of fire department, 10 cities, 1915.

1. SAN FRANCISCO.....	\$3.76
2. Seattle.....	2.58
3. Buffalo.....	2.42
4. Washington.....	1.86
5. Newark.....	1.83
6. Cincinnati.....	1.81
7. Milwaukee.....	1.68
8. Minneapolis.....	1.65
9. Los Angeles.....	1.57
10. New Orleans.....	1.45
Average.....	2.08

The per capita cost of maintaining the fire department in San Francisco is 80.7 per cent greater than the average for the 10 cities,

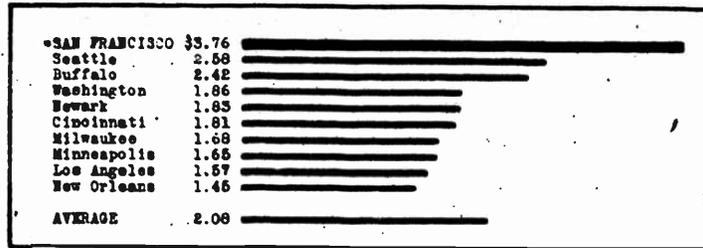


FIGURE 55.—Cost of fire department per capita of population.

and more than two and one-third times as much as the average for the lowest 4 cities in the list, \$1.58, Table 105 and Figure 55.

TABLE 106.—Per capita governmental cost payments for expenses for recreational purposes, 10 cities, 1915.

1. Washington	\$1.19
2. SAN FRANCISCO	1.10
3. Milwaukee	.96
4. Newark	.95
5. Buffalo	.86
6. Los Angeles	.79
7. Minneapolis	.64
8. Seattle	.58
9. Cincinnati	.45
10. New Orleans	.24
Average	.79

San Francisco ranks second in the list in per capita expenditures for recreational purposes, Table 106.

TABLE 107.—Per capita governmental cost payments for expenses of public-school department, 10 cities, 1915.

1. Los Angeles	\$9.22
2. Washington	6.94
3. Newark	6.83
4. Minneapolis	6.43
5. Cincinnati	5.88
6. Buffalo	5.82
7. Milwaukee	5.76
8. Seattle	5.42
9. SAN FRANCISCO	4.61
10. New Orleans	3.02
Average	6.04

In comparison with relative costs of other principal departments of city government, San Francisco's rank in per capita cost of maintenance of public schools offers a remarkable contrast. The average for the 10 cities is 31 per cent greater than the amount in San

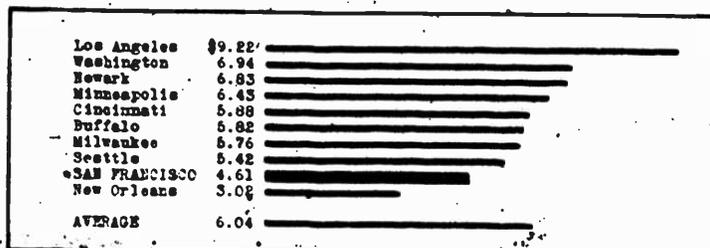


FIGURE 56.—Cost of maintenance of public-school department, per capita of population.

Francisco, which ranks ninth in the list, Table 107 and Figure 56. Los Angeles spends twice as much as San Francisco, and the average for Washington and Newark, \$6.88, is 49.2 per cent greater than the amount in San Francisco.

TABLE 108.—Per cent of total governmental cost payments devoted to expenses of general government, 10 cities, 1915.

1. Seattle	16.1
2. Cincinnati	15.1
3. SAN FRANCISCO	14.7
4. New Orleans	14.1
5. Los Angeles	12.6
6. Newark	11.9
7. Buffalo	10.9
8. Minneapolis	10.9
9. Milwaukee	10.2
10. Washington	8.5
Total, ten cities	12.5

San Francisco ranks third in the list in per cent of total governmental expenditures devoted to expenses of general government,

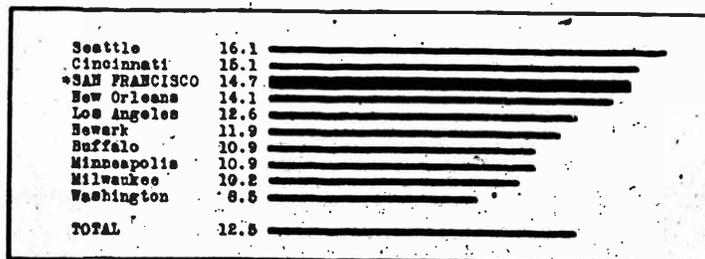


FIGURE 57.—Per cent of total governmental expenditures devoted to expenses of general government, 1915.

Table 108 and Figure 57. The amount is 17.6 per cent greater than the average for the 10 cities.

TABLE 109.—Per cent of total governmental cost payments devoted to expenses of the police department, 10 cities, 1915.

1. SAN FRANCISCO.....	14.1
2. Newark.....	11.7
3. Buffalo.....	10.8
4. Washington.....	10.1
5. New Orleans.....	9.2
6. Cincinnati.....	9.1
7. Seattle.....	8.5
8. Milwaukee.....	8
9. Los Angeles.....	6.6
10. Minneapolis.....	6.6
Total, ten cities.....	9.6

San Francisco ranks conspicuously ahead of the other cities in per cent of total governmental expenditures devoted to expenses of the

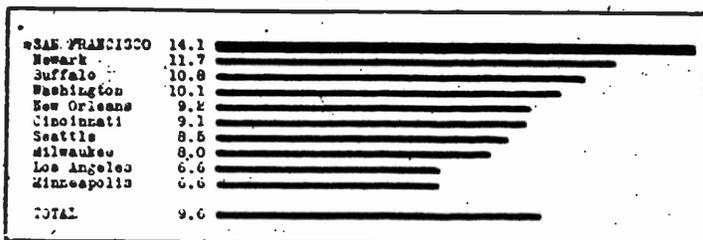


FIGURE 58.—Per cent of total governmental expenditures devoted to expenses of the police department, 1915.

police department, Table 109 and Figure 58. The amount is 57.2 per cent greater than the average for the 10 cities.

TABLE 110.—Per cent of total governmental cost payments devoted to expenses of the fire department, 10 cities, 1915.

1. SAN FRANCISCO.....	15.6
2. Seattle.....	12.8
3. New Orleans.....	10.8
4. Buffalo.....	10.6
5. Minneapolis.....	8.9
6. Milwaukee.....	8.5
7. Newark.....	8.2
8. Cincinnati.....	8.1
9. Washington.....	6.9
10. Los Angeles.....	6
Total, ten cities.....	9.5

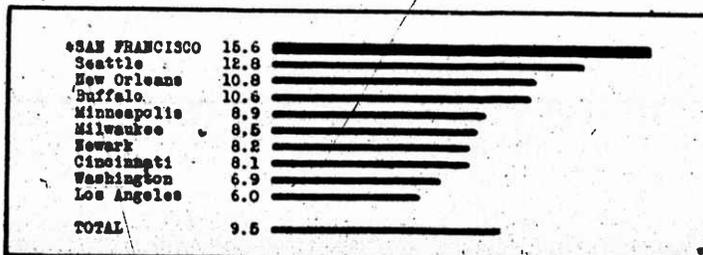


FIGURE 59.—Per cent of total governmental expenditures devoted to expenses of the fire department, 1915.

San Francisco also ranks conspicuously ahead of the other cities in per cent of total governmental expenditures devoted to expenses of the fire department, Table 110 and Figure 59. The amount is 64.2 per cent greater than the average for the 10 cities.

TABLE 111. —Per cent of total governmental cost payments devoted to expenses of the public-school department, 10 cities, 1915.

1. Los Angeles.....	35
2. Minneapolis.....	34.6
3. Newark.....	30.6
4. Milwaukee.....	29
5. Seattle.....	26.9
6. Cincinnati.....	26.3
7. Washington.....	25.8
8. Buffalo.....	25.5
9. New Orleans.....	22.4
10. SAN FRANCISCO.....	19.1
Total, ten cities.....	27.6

If one city exceeds others in per cent of total governmental expenditures devoted to general government, police department, and fire department, it must necessarily balance these excesses by retrenchment elsewhere. In per cent of the total devoted to expenses of the

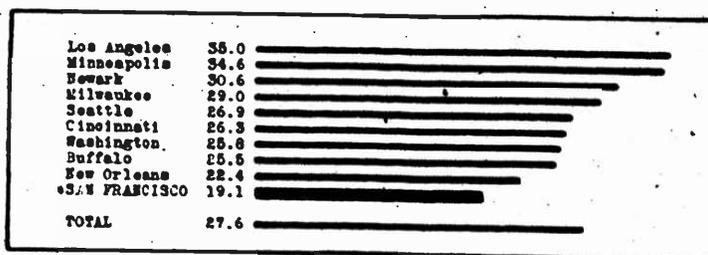


FIGURE 60. —Per cent of total governmental expenditures devoted to expenses of public-school department, 1915.

public school department San Francisco ranks lowest in the list, Table 111 and Figure 60. The average for the 10 cities is 44.5 per cent greater than the per cent in San Francisco; and the average for the first two cities in the list, 34.8 per cent, is 82.1 per cent greater than the per cent in San Francisco.

SUMMARY.

1. The necessity for making a comprehensive building program will soon make heavy demands on the board of education. There is need even now for funds for the construction of necessary school-houses to provide for the increased growth of schools and to replace certain undesirable buildings now in use. The needed funds can be procured only through the further issuance of school bonds

2. The board of supervisors in setting the school levy has been obliged to exceed the limit of the tax rate as provided in the city and county charter in order to procure sufficient revenue to support the schools. The situation thus created should be remedied by amendment to the charter, as recommended elsewhere.

3. The gradual increase in the school budget has no more than kept pace with the increase in the number of children to be educated, whereas such expenditures in the country as a whole have increased much more rapidly than the number of children.

4. In comparison with other cities, San Francisco has assumed almost no financial burden in connection with such auxiliary agencies as school libraries, library books, promotion of health, provision for school lunches, community lectures, and social centers.

5. The cost of conducting the schools per pupil has remained practically stationary since 1908. General increase in prices of commodities during the past 9 years, and adjustment of the school system to a reasonable degree of improvement in methods and equipment, should have caused a greater increase in the cost per pupil than has actually taken place.

6. Comparing San Francisco and the 9 other cities in the same population class, San Francisco possesses more municipal property devoted to general governmental purposes than any other city in the list; the value of property employed or held for the use of the police department in San Francisco is nearly three and one-half times as much as the average for the 10 cities, and for the fire department nearly four times the average, while the value of school property in San Francisco is only 40.1 per cent greater than the average.

7. San Francisco ranks fourth in the list of cities in total amount of indebtedness for all purposes and also in school indebtedness, although sixth in per capita indebtedness in both cases.

8. San Francisco ranks considerably below the average of the 10 cities in current expenditures for public schools, although outranking all the other cities in cost of maintaining the city government, fire and police departments.

9. San Francisco ranks conspicuously ahead of the other cities in per cent of total governmental expenditures devoted to expenses of both police and fire departments, but is lowest in the list in per cent devoted to school expenditures.

Chapter V.

SCHOOL BUILDINGS AND GROUNDS.

INTRODUCTORY STATEMENT.

Many things connected with the care, upkeep, and use of the school buildings of San Francisco could be made better at slight cost, but for the most part these defects are obvious to teachers, principals, superintendents, and others concerned, and it is not the purpose of this part of this report to point out these defects in detail. Closer supervision, a more practical cooperation between the school authorities and those who supervise the construction and repair of school buildings, or, better still, the putting of the construction and repair of buildings under the direction of the board of education, as recommended in Chapter III of this report, and a more generous financial support of the schools will make it possible to correct many of these deficiencies at once, without further recommendations. Many can not be corrected until old buildings and buildings intended only for temporary use are replaced by new buildings constructed on modern scientific plans.

While it will be necessary to point out certain conditions that should be corrected in the buildings now in use, more service can be done by directing attention to those established general rules and principles which should guide in the construction, equipment, and care of the buildings to be erected in the future, than by merely reporting on conditions as they now exist.

LOCATION OF SCHOOL BUILDINGS.

The school authorities of the city of San Francisco have an unusually difficult task in securing proper sites for school buildings, because of the peculiar topography of the land upon which the city has been built. For the most part the level land is low and lies nearest the bay. But here, of necessity, are located the large manufacturing industries. Here also are the steam railways, and all the noise, smoke, and dirt incident to these conditions. In addition, the great wharves and the busy traffic of a great world port are contiguous.

Congregated about these sections are the homes of many of the workmen employed. Altogether there are few sites in these districts which are sufficiently high, dry, large enough, and sufficiently

removed from the noise, smoke, and danger of traffic to warrant the location upon them of good school buildings. However, the children in these sections must be accommodated. Therefore, the sooner the board of education can select sites now needed and those that will be needed in the near future, the better they will be able to serve the children under their charge.

Boards of education ought to have power under proper limitations to anticipate needs and secure sites of sufficient size and in strategic locations before the actual needs drive them to the market to take what is left, often at an exorbitant price; or to be compelled to institute condemnation proceedings at large expense.

The main residence portions of San Francisco are hilly regions, where hillsides are the only available sites for school buildings. This renders the problem of orientation and lighting very difficult, and makes it almost impossible to secure playgrounds of sufficient size in connection with schools. But even under these untoward conditions, certain demands can be met and definite errors can be prevented by using caution in the selection of sites.

In the first place, sites selected should permit the planning of buildings in such a manner as to command east or west light in all the classrooms, or at least in as many as possible. This will save almost endless trouble.

In the second place, the site should be removed from street-car tracks at least one block, and as far as possible from all noisy factories and other objectionable or troublesome environments. Frequently tall buildings interfere with light, and a congested tenement district renders the fire hazard much greater. Moreover, the possibility of securing thorough drainage both from the building and of the lot is a matter of prime importance.

The Francis Scott Key School offers an illustration of the serious mistake of locating a building on a lot which is fairly well situated, but not large enough. At the time the building was constructed no street sewer had been laid. This of itself should have called for the utmost care in placing the building so as to take advantage of every possible eventuality. But instead of placing the building on the east side of the lot, which is much higher than the west, the latter position was selected. As a consequence, the septic tank which was constructed has given much trouble, and it is reported that when the sewer was finally laid in the street, it was placed at a level higher than the basement of the building. Consequently, either the whole building will have to be raised or connections made with a lower sewer at a greater distance.

At the time of the inspection the toilet seats in one part of the building were overflowing, due to the height of the water in the septic tank. In addition to this serious trouble, the drainage of the lot is

toward the building and not away from it, as would have happened if the building had been placed on the east side. Mistakes like this are very serious.

Another instance of lack of proper foresight in locating a building on the lot, or at least in planning the building so as to minimize difficulties, is seen at the Polytechnic High School. It would have been better in almost every particular to place the recitation or class rooms of this building on the upper side of the slope, away from the noise of the street cars, and if need be to put the shops near the noise on the lower side. This would have saved endless difficulties with noise and dust and also made it easier to install the heating plant. The building might not have made as impressive an appearance thus arranged, but appearance is secondary to usefulness. As it now is, the part of the building most used is in the worst place.

It is a serious matter to locate a school building constructed to serve the children and the cause of education for a hundred years, and no pains should be spared to anticipate every possible difficulty.

Certain buildings must in time be enlarged to meet the demands of increasing attendance, and the sooner the board lays out a program toward which to work the more satisfactory will be the result. For example, the Commercial High School must soon have more room, else it can not accommodate the students or serve the interests of the city successfully. The lot upon which the present library building is located, and that part of the block lying east, should be set aside for future extensions of this school. It will not be many years until the whole block will be too small for the buildings needed.

The Starr King School is handicapped unnecessarily by privately owned lots cutting into the playground in an awkward and troublesome fashion. These lots have on them buildings in bad repair, and their surroundings were in an insanitary condition when the inspection was made. A stream of foul water breaking from this higher ground was running across the playground, hindering the children at play, rendering the school premises unsightly, and possibly introducing septic material. These lots rightfully belong to the school ground and should be acquired for school use. These are only examples of many similar situations.

PLAYGROUNDS.

If all the classrooms in the San Francisco schools were combined into one great room, and if all the playgrounds about all the school buildings were combined into one large playground, the square feet of classroom floor would greatly exceed the square feet of playground. In other words, the floor surface of the classrooms of San Francisco schools is much larger than the playground surface. It is very clear, therefore, that there is practically no opportunity

offered for the free and unhindered play of the school children. In a few places there are handball grounds and some playground apparatus, but for the most part the playgrounds are covered with asphaltum cement or boards, and there is little opportunity for the freedom and abandon that children need in play.

To this there are some exceptions. It is a great delight to see the joy of the children playing in the sand at the Lafayette School. A few other schools might be mentioned where fair opportunities for play are offered, but practically nowhere surrounding the public schools of San Francisco are there playgrounds worthy of the name. They furnish some opportunity for the children to get an airing and for a few possible games, but if the boys wish to play a real ball game, they must go elsewhere.

The movement for closer correlation of public playgrounds and the city schools is to be commended, and it is to be hoped that through it larger playgrounds may be obtained for all schools. Opportunity for out-door games under wholesome conditions tends to prevent truancy and juvenile delinquency. The parks and various public grounds now open to the children of San Francisco are serving to lessen the criminal tendencies of the growing youth of the city more than many people appreciate. But these opportunities are meager and are completely out of reach of many children who need them most. In the future no permanent buildings should be erected on grounds too small to afford proper opportunities for play. If choice must be made between two sites, one centrally located in the section to be served but with no room for playgrounds, and one less centrally located but with good ground for the building and also for outdoor playgrounds, the latter should always be chosen.

For example, the Parental School could be of far more service to the boys if it were placed on the outskirts of the city, away from the very environment which is partly responsible for their delinquency, where they could have their own playground, plenty of space for gardens, and that access to nature so interesting and necessary to all boys.

The saving in the cost of land would more than compensate for all the extra outlay involved. It is a much less serious matter for grade children to be compelled to walk a mile or two in the mild climate of San Francisco than to be cooped up night and day with no chance for real unhindered play with their fellows. A certain blindness slowly acquired with the years prevents adults from seeing child life as it is, and judging of real values for them.

LIGHTING OF SCHOOL BUILDINGS.

The problem of lighting school buildings in San Francisco offers in the main less difficulty than that of most eastern cities, because of the preponderance of bright and sunny days. If, therefore,

proper precautions are taken in the orientation of school buildings and the amount and setting of the glazing are carefully considered, there should be comparatively little difficulty in securing ample light and of the best quality.

In all the newer buildings of San Francisco this principle of unilateral lighting is applied. In older buildings, especially those that were built some 30 or 40 years ago this principle was disregarded, and as a result many of the classrooms are dark and improperly lighted.¹ In the days when these buildings were erected, the problems of school hygiene had not been carefully considered.

The next problem having to do with lighting depends upon the orientation of the building. If the school building is so placed on the lot and so planned as to receive the light into the classrooms from the east or west, the best conditions, other things equal, will prevail. No argument is necessary to prove to Californians the value of sunshine in the climate about the bay, both for health and for comfort. Hence no classroom for the elementary grades should receive its light from the north. On the other hand, because the light from the south is the strongest light, and in a way most cheering, and in addition has the advantage of keeping the room warm in cold weather, many have jumped to the conclusion that the south light in classrooms is the best light. This is a serious error, because of the difficulty of keeping the direct rays of the sun from falling upon the desks of the children while they are at work.

South light on sunny days is one of the most disturbing problems the teacher has to deal with in the latitude and climate of San Francisco, for it is necessary to shut out the direct rays of the sun for the sake of the children who sit in the first and second rows from the windows. But when this is done, those who sit on the opposite side of the room are debarred from sufficient light to make it possible to do their work in the most hygienic manner.

Furthermore, when the windows open on the south, the rays of the sun never stream entirely across the room, as happens in early morning or late afternoon when the windows open to the east or west; therefore, the classrooms are not as thoroughly purified by the south sun as by the east or west sun. The best disinfectant known to science is direct sunshine, and classrooms should be so constructed as to be flooded by it some time of the day.

When classrooms open to the east, the early morning sun sweeps entirely across the room, if there is no hindrance from tall buildings and foggy or cloudy weather. Within an hour or so after school has begun, the east sun has practically disappeared from the classroom, and the shades can then be rolled up for the day and no further attention given to them until the next morning. This insures the

¹ For example, in the Horner Mann, the Moulder, the Fremont, and similar schools.

advantages mentioned as well as the value of the early sun in warming such classrooms.

On the other hand, those classrooms which receive their light from the west have no trouble with direct sunshine until shortly before the close of school for the day, and in fact in the primary classes it does not disturb at all, for the children are dismissed before the west sun comes into the windows in a disturbing way. Hence, in classrooms receiving their light from the west, there is comparatively little difficulty in handling shades and furnishing the children the best possible light. No shade has been invented, nor quality of glass made, which will prevent the disturbing effects of direct sunlight, and at the same time permit the passage of sufficient light into a classroom to satisfy all the demands of health.

The board of education and all those who have to do with planning and constructing school buildings should make an especial effort to apply health principles in the selection of school sites, in the planning of school buildings, and in the placing of windows. These problems have been solved in some of the newer buildings of the city in an admirable manner; in others they have been entirely neglected. The Sarah B. Cooper School, in which each classroom gets either east or west light, is an illustration of good lighting. While this building is on a steep hillside, the west exposure is not interfered with to any serious extent, save by the higher horizon line resulting from the hill further to the west.

In contrast, the Columbus School is so planned that all the classrooms get the south sun. This makes it very difficult for the teachers to care for all the children properly and does not permit as complete sunning of the rooms as would prevail if the building had been set so as to get east or west light.

Practically all the old buildings are improperly lighted; but except in a few instances the board will not deem it wise to go to the expense of making extensive changes in these buildings for the few years they will be kept in the service. Some of them, however, could be made more acceptable at comparatively small expense, and should be changed at once.

The principles thus stated are meant to apply chiefly to the classrooms of the elementary schools, though the same holds true for the ordinary classrooms of high schools. However, provision must be made for offices, lunchrooms, libraries, manual training shops, etc., and in high schools, laboratories, art rooms, and other rooms for various purposes. It is evident that south sun in libraries is not so troublesome, because the readers can adjust themselves to the light in an easy and satisfactory way. So, too, in laboratories for physics, chemistry, physiology, and biology. Not only is it admissible, but it is better, to have such laboratories receive the south sun. For

example, in the Girls' High School, the biology room is placed on the north side, where the plant and animal life necessary for the work in biology can not be developed properly without sunshine.

In the same way, the physics room opening to the north would handicap the experiments in light, in addition to rendering the room less wholesome. The south light in laboratories is therefore not only admissible, but many times very helpful. Plainly the principal's office and the lunchroom could also be planned to receive the south light without serious objection, and in fact often advantageously; but this is not true of classrooms.

The investigation failed to show a single classroom in the latitude of San Francisco satisfactory when lighted from the south or the north. Special inquiry was made of the teachers who were using such rooms. Many teachers said the room getting light from the south was cheery and bright, but when asked if any trouble had arisen in handling shades and preventing the direct rays of the sun from falling on the desks of the children, they invariably admitted that there had been difficulties. Not infrequently the children on the side opposite the windows were found suffering all day long because the shades had been pulled down to shut out the sun.

In the climate of San Francisco, if the glass surface for windows equals one-fifth of the floor surface of the classroom, and the windows are properly placed, sufficient light can be usually secured without difficulty. This is true, however, only when the windows are properly placed. The bottom of the window should be 4 feet above the floor in all classrooms, except those designed especially for the primary classes, and should be set as high in the ceiling as safety of construction will permit. All light should come from above a line on a level with the eyes of the children when they are seated at their desks, so that their eyes may be adjusted for the work at hand rather than for the light that would come directly into their eyes from without. Never should there be more than 6 inches between the top of the window and the ceiling. This insures that the light will carry well across the room, and at the same time receive the best exposure from the sky. One foot of light surface at the top is worth two or three feet at the bottom.

In the next place, the windows should be grouped as closely together as possible, and set to the left and rear of the children as they are seated in the classroom. This is one of the hygienic requirements that architects are inclined to neglect, on account of the difficulty of securing balanced effects in elevation. The difficulty is not to be denied, but children's eyes are worth more than tradition of architectural effects.

If windows are extended along the whole side of the classroom from the left rear corner to the left front corner, the windows in front near

the teacher will be worse than useless. To be sure, the room as a whole would receive more light. But the light that comes into the front of the room will seriously handicap the children as they are seated at their desks, especially those seated in the rear, for this light would shine directly into their eyes, and thereby automatically adjust the eyes to an amount of light greater than that reflected from the page of the book; hence, there would be a constant conflict between the demands of the light on the work to be done and the light that comes in from the window and shines directly into their eyes.

Special attention was given to noting the location of the windows in all classrooms in the newer buildings as well as in the older ones, and it was a rare thing indeed to find the windows properly placed. The prevailing custom is to group the windows and place them in the center of the room, giving equal space to the rear and to the front in which no windows are placed. It is far more satisfactory from the

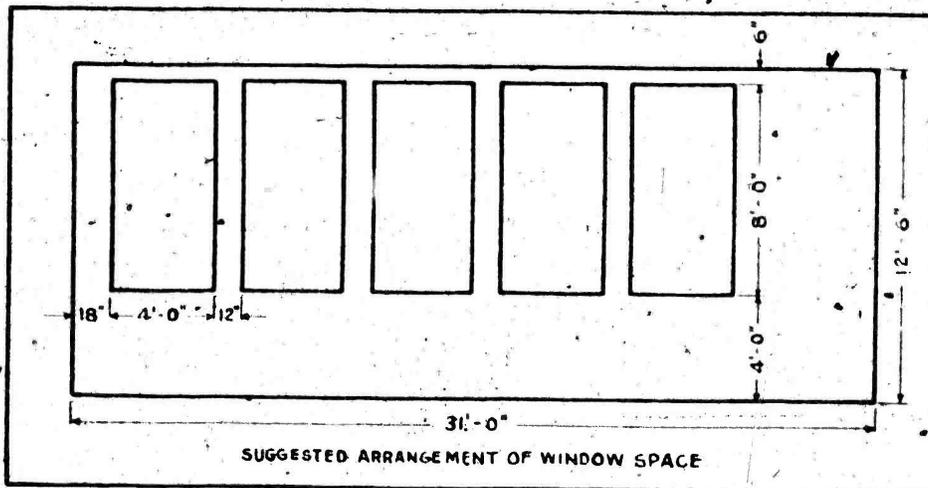


FIGURE 61.—The windows in a schoolroom should be grouped as close together as possible, toward the rear of the room, with sills 4 feet above the floor level.

standpoint of the health and convenience of the children to put the rear window as near the back of the room as the construction will permit, and to leave the front outer side of the room with as much unglazed space as possible. Again and again in classrooms having windows all along the sides we tested the children and the teachers, and invariably found that it was much easier for them if the shades were drawn over the front window than it was to leave them all open.

The architects who plan future buildings should therefore be required as far as possible to place their windows in the rear to the left, and to leave such dead space as will result in the outer wall in the front end of the classroom. Figure 61 illustrates the proper arrangement of the windows in a room 24 by 31 feet with a 12½-foot ceiling. The architectural difficulties involved are problems for the architect to solve, and no architect should be excused from meeting these conditions in a satisfactory way.

It was observed throughout all the newer and better buildings of the city that the architects have been striving to find a kind of window sash which will make it possible for the classrooms to be turned into open-air rooms; or at least to afford the best possible window ventilation. This is a commendable effort. In no case, however, was the new patented sash found entirely satisfactory. In the new Denman School and in others where the windows are hung on pivots, some of the windows were blown in during a recent storm, and the buildings were damaged as a result of the heavy rain. The only sash to which objection was not urged, and which did not offer serious difficulties, is the old-fashioned, double-hung sash. Naturally, by the use of these only half of the window space can be open at one time, while with the pivoted sash it is possible to open the whole window space for free and easy ventilation; but this possibility is more theoretical than practical, for in many cases there was no one about the school building who was able to handle them properly because of one difficulty or another. The windows are large and the sash is heavy and somewhat hard to adjust, especially to hold in place. A few instances were reported where children were hurt as a result of the pivoted windows being blown in and striking them.

In this connection it might not be out of place to say that as long as San Francisco schools are so completely managed by women—principals, teachers, and janitors—it is necessary that architects plan to use only such windows as it is possible for women to handle safely and easily. Notwithstanding some of the difficulties involved, therefore, the old-fashioned, double-hung windows will prove more satisfactory than any patented sash now in use in the city, except it be in high schools, or in other buildings where men are at hand to manage them. This is simply a matter of adjustment to physical strength.

The patented sash also offers certain special difficulties with shades. With double-hung windows, it is better to have two shades fastened two-fifths of the way from the bottom of the window to the top, the upper to pull up and the lower to pull down. A similar use of shades in the newer buildings with the various forms of patented window sash was not generally satisfactory.

The shape of a window has much to do with its effectiveness as a means of transmitting light. A window arched at the top, with heavy cross bars dividing it into an upper transomlike window and into an ordinary window below, is apparently more ornamental than useful. An arched window cuts out an appreciable portion of the best light, and hence, other things equal, should not be used. A mistake in this regard is especially serious in a one-story building like the Lincoln School. With a window 8 feet high, as suggested, there is no need to divide it into two parts, except by the sash, and this will

not only reduce the expense materially, but will also make it much easier to keep the building clean and neat.

Many of the windows of the schools in the city during the month of February, when this part of the survey was being made, were exceedingly dirty. Inquiry showed that these windows had not been washed since the summer vacation, and, furthermore, that the janitors were not permitted to wash them, as this part of the school service was being done under contract by a window washing company.

The windows on the east side of the Garfield School, for example, were not only sufficiently spattered with mud and dust to make them unsightly, but they were so dirty that the light was appreciably lessened. The windows of many other buildings were also very dirty, inside and out. It is difficult to see how, under the present system of window cleaning, it would be possible for the principal to have the windows washed promptly when they are actually in need of it. It was reported that a certain amount of money was subtracted each month from the janitor's regular salary and paid to this company for keeping the windows clean. The plan is certainly a failure, because the windows were not clean, and so far as could be ascertained not over half of them were washed more than twice a year. Naturally it is difficult in some of the larger buildings, and especially in tall buildings, for women janitors to wash windows, or even men janitors who are not supplied with ladders and sufficient equipment to make it comparatively easy and safe to wash them. Some method or plan which will insure better results should be devised immediately.

BLACKBOARDS.

In the long run slate blackboards are the most economical boards to use in all well-constructed permanent buildings. It is justifiable to place composition boards in temporary buildings, and in repair work in old buildings, but even there they are never satisfactory.

So far none of the manufactured blackboards have overcome the difficulty incident to the reflection of high lights, especially after a period of use. They all become glossy after they have been used for a time, and hence increasingly reflect the light. In addition, they do not take the chalk so readily, can not be washed safely, and do not give as good quality of line as slate. Many of the blackboards now in use in San Francisco are so badly worn and so glossy that they should be replaced at once.

A good illustration of the false economy of using a poor quality of material for blackboards is to be seen in the Garfield School, a "special construction" building costing over \$100,000, which has been in use less than six years. The blackboards in this new build-

ing are already in bad condition and should be replaced at once. In many other buildings, both new and old, the same general condition of blackboards may be found.

It is therefore recommended that in all future "permanent" buildings a good quality of slate be used for all blackboards, and that special supervision be given when these are set. This will prove both economical and far more satisfactory to the health, comfort, and educational progress of the children.

After proper material has been specified for blackboards, the next thing of vital importance in securing the most satisfactory use of boards is to set them properly. When slate boards are used, the walls must be properly prepared to receive them, so that they will rest firmly and solidly against the walls; panels must be matched so that the joints will be even and regular. This requires skill and specialized labor and can not be safely intrusted to the ordinary plasterer or cement worker. If a slate board is set on an uneven backing, it will withdraw or warp and become noisy when in use.

Perhaps the most serious mistake made in locating the blackboards in nearly all of the new buildings is that of bad placing with reference to their height above the floor. Less than 10 per cent were properly set to meet the plain demands of the best use. For example, in the Madison School, a new "special construction" building, the lower part of the blackboards is placed less than 20 inches above the floor. Practically the same mistake was made in the great majority of the newer buildings. This is far too low for even the first-grade children. No child of school age can write comfortably on the lower part of a blackboard thus set without kneeling on the floor and soiling his clothes, and what is probably more serious from an educational point of view, he is absolutely unable to do his best writing in such a position.

Many experiments were made with the children to test this point. They were sent to the boards to write a column of figures or words each beginning at that height on the board where the writing could be done most satisfactorily. The attention of the teachers was then called to the fact that the writing degenerated toward the bottom of the column, and that when it got below a certain point, varying as the height of the children varied, it became clearly impossible for them to write easily and correctly. Consequently, for the most part all the work done on a blackboard below the height at which a child can write well is such as to establish habits of poor writing, or at least to interfere with the very habits the teachers are striving to establish.

Therefore, to prevent the children from soiling their clothing by kneeling on the floor and gathering more chalk dust on their clothing than they would otherwise gather, and also to save them from

establishing bad habits in writing, it is recommended that in all school buildings to be constructed in the future blackboards be set approximately as follows: For first and second grades, 26 inches above the floor; third and fourth, 28 inches; fifth and sixth, 30 inches; seventh and eighth, 32 inches; high schools, 36 inches.

There is no reason in setting the boards for all the grades at the same height, on the theory that each child can then select that part of the board which will be most satisfactory. The facts of practice show that this theory is rarely if ever intelligently followed. Besides, when blackboards are properly placed, there is in general little need, except for the teacher's directions, for making them over 42 inches wide instead of 4 feet as was usually found. Hence, here is not only a saving in light absorption, but a reduction in the cost of material. Moreover, when boards are too wide the chalk troughs catch less of the dust falling from the upper part, and this adds to the difficulty of keeping the room tidy and sanitary. Work written on the bottom of a low set board can not be seen readily by the pupils when seated at their desks.

HEATING AND VENTILATION.

The general method of using low-pressure steam for heating all the newer buildings is to be commended, and the use of oil as a fuel renders it possible to keep a more uniform temperature and to adjust the heat better than can be done when coal is used. But when the furnace room is so placed as to cause the noise of the burning oil to disturb the classrooms above, a definite mistake has been made. In planning for the future, especially when oil is to be used as a fuel, this question of disturbance should be considered very carefully and the furnace so placed and the blower so arranged as to minimize the noise.

Where conditions permit, it is always better to place the heating arrangement as far from the center of the building as possible, and to remove it from the main structure if sufficient space is at command. Especially is this true in case high-pressure boilers are used. In the Girls' High School the disturbance from the fans and the furnace below is exceedingly annoying, both as to noise and vibration. A better placing here would have saved a great amount of disturbance and difficulty as well as have rendered the building and the students much safer.

The prevailing present practice of using fans to drive the fresh air over steam coils, and to introduce this warm air into the building by the plenum system, can be satisfactory only in cold weather, and this is rare for San Francisco. To be sure, if ducts leading from the plenum to the various rooms in the building are properly adjusted, so as to equalize the pressure in the various rooms, and the radiation

surface is of sufficient extent to warm the air, the rooms can be kept heated without difficulty; but only on condition that the windows be kept closed; and this introduces another difficulty. It is not only important to have the proper temperature in a classroom, but in this climate it is of greater importance to have good ventilation. This can not be accomplished with the fan system unless ample fans and ducts are provided and so placed as to equalize the pressure and introduce a sufficient amount of air to keep it moving in the classroom in order to meet the health requirements.

It is a common thing in the new buildings to use one small fan to drive air into 15 or more classrooms, plus offices, halls, and other rooms. This makes adequate ventilation an utter impossibility. Every classroom which depended entirely upon fans for ventilation was either too warm, or too impure, or both, to be wholesome for the children.

Fans should be supplied with sufficient power to deliver at least 2,000 cubic feet of air an hour for each child and teacher in the building, to say nothing of halls and other spare rooms, or else the fans should not be used, and heat be obtained from direct radiation in the classrooms themselves and ventilation secured through the proper use of windows. The purpose of this statement is not necessarily to condemn the plenum system of ventilation; but to condemn the use of *inadequate fan power* and *improper* adjustment of the *ducts* leading from the plenum chamber to the various rooms.

During the month of February the weather was in the main very mild, and on many days it was not necessary to have a fire at all. On such days the fans were not running and the teachers depended upon the windows for ventilation. Through close observation and experiment it was determined that under these conditions the air was more wholesome in the classrooms than on those days when fire was needed and the fans were running and the windows closed.

If the plenum system is to be used at all, it must be adequate to supply every possible demand when fans are running at a medium speed, and should be used whether there are fires or not. But invariably it was found that when the janitors ceased firing, they stopped the fans. This was usually about noon time, and when teachers did not immediately open the windows children were compelled to breathe impure air.

In some buildings—for example, the Star King—direct radiation in the classrooms from low-pressure steam is proving entirely satisfactory, and the teachers depend upon the windows for ventilation. In a few other buildings depending upon direct radiation it was evident from the complaint that the teachers offered of not being able to get sufficient heat in cold weather that insufficient radiating surface had been provided. In these cases especially the wall type of

radiators had been used, and these, as is well known, do not afford per lineal foot as much radiating surface as the ordinary type of radiator resting upon the floor. Such errors need not be made, for it can be determined by heating engineers exactly how much radiating surface will be required in a given-sized classroom to meet all conditions of San Francisco weather.

It is always well to demand adequate heating equipment to meet the needs of the most severe weather rather than of milder weather only, and then by the use of various automatic adjustments to regulate the temperature to suit the demands in the classroom.

It was very interesting to note the condition of the air and the regulation of the temperature in the old buildings heated entirely by small coal stoves in each classroom and to compare the conditions with those in the modern buildings depending upon a central heating plant and fans. It was really surprising to see how much better the old buildings were in this respect than the new. It was seldom that there were found classrooms in the old buildings depending upon stoves for heating and windows for ventilation in which the air was not fresh and pure and the temperature at approximately 65°. On the other hand, rooms were found in the new buildings with the temperature above 80° and the air stuffy and the children drowsy. This does not indicate that the newer buildings should be heated by stoves in each room. A much more thoroughgoing study of heating and ventilation requirements for San Francisco climate should be made by engineers before other buildings are constructed. There is nowhere else in our country a climate exactly comparable to that of San Francisco, and these conditions must be met.

This can be done in many ways. A system of plenum ventilation and indirect heating can be devised that will prove entirely satisfactory if properly handled; but it is far better not to attempt to use this system unless it is entirely adequate to meet the needs. One small fan is not enough for 20 classrooms, and one small fan, or even one large fan, set in the center of the room with ducts leading to the remote rooms in the building makes it very doubtful, because of the prevailing winds, that all parts of the building can be properly heated and adequately ventilated. Winds are much greater disturbing elements in this system of ventilation than is ordinarily supposed, even though the walls of the building be made of brick or concrete.

On the whole, taking all conditions into consideration, both as to expense and more especially as to the welfare of the children, a properly-installed system of direct radiation and a conscientious use of the windows for ventilation will yield better results than any fan system observed in the city.

It can not be stated too earnestly that anything that is worth doing is worth doing well. If it is worth while to install a fan system

so as to wash the air and insure both clean and pure air to classrooms, then no expense must be spared to install an apparatus that will insure it and to secure intelligent and competent mechanics to manage, supervise, and keep such systems in order.

It stands to reason that it is entirely possible to make an almost perfect system of ventilation by the use of fans, air washer, and the proper adjustment of inlets and exits; but it is equally reasonable that these must be adjusted so as to meet demands in an easy way and to be subject to the control of those who know what they are supposed to do, how they work, how they can be properly corrected when out of adjustment, and tested out frequently so as to see exactly what they are doing.

Unless a system of mechanical ventilation is installed correctly, and is entirely adequate to meet the demands at all times when running at a reasonable rate, then it is better not to install it at all. Nowhere in the city were the teachers satisfied with the system of plenum ventilation installed in the newer buildings, because they were directed to keep the windows closed, and yet the fans were insufficient to give the adequate amount of fresh air needed. Thus it became necessary for the teachers either to disobey these requirements for the sake of the health of the children or to allow many of them to suffer. As one principal told me, "In direct opposition to orders, it is absolutely necessary to open windows for fresh air, as classrooms become so foul."

It must not be inferred that this criticism is directed against the plenum system per se. It is only against an improper, an incomplete, and inadequate use of the system. One of the school officers stated that the system has proved unsatisfactory except in the cases of the Lowell High School and the Girls' High School, where the plants are run by well-qualified engineers. It is certain that better results can be secured by such engineers than by those who know very little about the machinery used and possibly nothing about the adjustments necessary. But even a good engineer can not drive in a sufficient amount of air with insufficient fan force back of it.

The thermostat system is a necessary part of centrally heated school buildings. The thermostats in use in San Francisco have given a great deal of trouble, because they have not been properly understood and hence are not properly supervised by the janitors. It was rare indeed to find the thermostat in any building properly adjusted. Responsibility for this condition was not definitely placed, but clearly no mechanic who is not in the building all the time could be expected to give as close attention to these as the janitors ought to give.

When a classroom on the south side of a building is registering 70° or 75° and a classroom on the north side is registering 60°, it is evident that either there is not enough central heat to keep the north side of the building warm, or that the thermostat on the south side does not regulate the temperature needed; or, in brief, that the system of thermostats is not giving proper service.

Necessarily, if a teacher has to open windows under such conditions in order to relieve her children from the undue heat, the rooms in the cooler parts of the building will suffer still more. Again it needs to be emphasized that as long as the plenum system is used to distribute the heat through the buildings the thermostats must be kept in perfect order and must be examined daily in order to see if troubles exist and where.

This suggests one thing about which architects and engineers should be cautioned. In many of the newer buildings the controlling apparatus connected with the thermostats is so badly placed that it can not easily be inspected and corrected when out of order. Some buildings were found in which it was necessary to creep through small doors into dirty and windy places in order to find the controls. In others the controls were placed very high in the ceiling, thereby making it difficult to examine them frequently and correct them when out of adjustment.

In general, the schools of San Francisco are to be commended on the fact that the children have been taught to demand a lower temperature in schoolrooms than is generally demanded in the East. A number of classrooms were observed where the temperature registered but slightly over 60°, and the children were not only contented but entirely comfortable. The teachers expressed themselves as thoroughly satisfied if they could command at all times a temperature of 65°. This is ample. Overheated classrooms are among the most effective agents for disturbing the health and killing the interest of the children.

Another condition connected with the air supply of all buildings depending on the plenum system should be pointed out. The fresh-air intakes leading to the fans are practically all too near the ground, and many of them open toward dusty streets or other sources from which much dust or foul air is drawn into the building. When the air washers are in operation much of this dust is eliminated before it is driven into the classrooms, but when they are not in operation the opposite is necessarily true.

If the fresh-air supply were drawn from a higher level, say above a level with the basement ceiling, or even from above the roof, it would be much easier to keep the classrooms and the building as a whole freer from dust.

There are many things connected with the ventilation of school buildings still in doubt, and no attempt has been made to go into these intricate and unsettled problems. The climate of San Francisco, because of prevailing winds and general mild weather, introduces local difficulties that should be thoroughly studied by competent engineers and school officers.

It might not be out of place to say in this connection that many of the janitors, in whose buildings a central system of heating and ventilation is installed, do not appreciate the necessity of keeping the chambers, through which the air from the outside passes, absolutely clean. In many cases the plenum chamber contained paint cans, oil cans, and mops, and in one case a great pile of kindling was in the chamber. This of course means that not only the air in passing from the fans to the various rooms is impeded in its movement by the friction thus caused, but more especially that all odors and dust and dirt allowed to collect here are blown directly into the schoolroom.

Any sort of careful thinking would make it plain that these rooms should be kept spotlessly clean and as free from any leakage from other parts of the basement as possible. In a number of cases the doors leading toward the fan do not fit closely, and a perceptible portion of the air is thus sucked out of the basements and carried into the schoolrooms. On the other hand, if the plenum chamber permits a leakage, this of course will detract largely from the effectiveness of the fan in ventilating the schoolrooms.

The heating system (it can not be properly called a ventilating system) at the Mission High School is of the old hot-air, furnace-gravity type. That is to say, air is heated as it passes over a furnace, and is delivered to classrooms (if it can get there) solely by the force of gravity. When air is heated it expands and volume for volume becomes lighter than colder air. For this reason the heated air is pushed upward by the heavier, or colder air. It therefore stands to reason that in a climate where the temperature of the outside air is rarely as low as the freezing point, and for the most part during the ordinary cold weather less than 20° F. below what it should be in the classrooms, the movement of the air through the ducts to classrooms will be sluggish unless heated far above the temperature needed. Hence this system can not be depended on to give anything approximating adequate ventilation.

Furthermore, the rooms can be heated evenly only by careful firing and proper damper control. The air is likely to be dry and harsh, especially in cold weather. There will never be adequate ventilation in crowded classrooms unless windows are opened, and this may serve to draw off the heat supply designed for other rooms in which the windows are kept closed. But windows must be opened when fresh air can be secured in no other way. This system should be abandoned and a modern heating system installed.

We are of the opinion, taking everything into consideration, that a system of low-pressure steam heating with sufficient direct radiation in each room, and a frank and complete dependence on windows for ventilation, would be the most economical and practicable method of meeting the demands of this building. It is an utter impossibility with the present plant to command the proper sort of heat, and at the same time to insure even a reasonable degree of ventilation.

ASSEMBLY ROOMS.

The school board is to be commended for supplying to all the newer buildings some form of assembly room. In the grammar schools these rooms are almost invariably in the basement; they seem, however, to be very little used. Many of them are used for parent teachers' associations and for some evening gatherings, but their value could be multiplied many times if they were used daily for the upper grades. It may be that the location of these rooms in basements has directly or indirectly operated to prevent their general use.

Comparatively few of the assembly rooms are sufficiently lighted to justify their use as class rooms or study rooms. They should be used more frequently for chorus work, for lantern work in connection with history, geography, literature, nature study, and for other regular school studies in which illustrations could be used to advantage. An assembly room can be made the spiritual center of the school; but to accomplish this, regular programs, exercises, and illustrated lectures must be arranged. These rooms can be used for extension classes and evening entertainments for community purposes with good effect, and this part of the educational work of the city should be more systematically developed.

Those who investigated the city's schools were disappointed in the location, size, and general arrangement of the assembly room in the Lowell High School. In a school of this kind, above all, there is need for adequate and commodious assembly rooms, not only for regular morning exercises, but also to afford opportunity for student organizations to work together for the cultivation of those graces and social activities which will make lasting impressions, as well as give a certain useful training to those who must soon become leaders in social and public affairs.

Assembly rooms should be carefully planned, well located, and attractively constructed in order that they may make such an appeal as will demand their regular and intelligent use.

BASEMENTS OF SCHOOL BUILDINGS.

In the newer school buildings, the basements are generally free from dampness and well lighted. In the older buildings, with central heating and ventilating plants, the basements, where any exist, are

usually in bad condition. Broken school furniture, kindling, oil barrels, and other materials are often found stored in them, and the resulting risks of fire and disease constitute a real menace. This was strikingly true of the Horace Mann Intermediate School, a wooden structure badly overcrowded and surrounded by other inflammable buildings. The basements of such buildings should be cleaned out and rendered as bare and safe as possible. All useful material not needed in the school should be removed to some central warehouse for distribution. The useless stuff should be burned.

In some of the older buildings, such as the Emerson School, the Hearst School, and others of this type, classrooms have been fitted up in basements that are entirely too dark for use. Portable buildings furnish far better classrooms, even though the lighting is imperfect, than these basement rooms. Unless basements are well lighted and have ample opportunity for sunning, and unless the floors are set on cement, they can not be dry and sanitary enough for use as school-rooms.

The prevailing policy seems to be to put the primary children in these rooms. These are just the children who ought to have the brightest, most attractive, most comfortable and most sanitary rooms. In the newer buildings rooms in the basements are fitted up for domestic science and manual training work. Some of these rooms are fairly good, but most of them are imperfectly lighted and poorly ventilated. Fewer difficulties and more advantages follow from putting manual training in the basement than from putting domestic science there, but even manual training rooms must have ample light, and it is difficult to furnish as good light in basements as in rooms above ground. Special care should be taken to see that the manual training rooms are as free from shavings and other inflammable material as possible.

TOILETS.

The location of toilets in the modern elementary school demands the most careful and painstaking consideration. In the newer buildings of San Francisco, the toilets are principally in the basements. This is, in the main, a very satisfactory arrangement, provided only that the basements are so lighted and ventilated and so readily accessible both to the playgrounds and to the rooms above that they can be kept strictly sanitary and acceptable to the children and teachers.

No room in a school building demands more light and sunshine and better ventilation than the toilet room, and no part of the school building constitutes a more accurate index of the general conduct of the schools. Conditions are bad in some of the older buildings, where toilets are located in the yards. The Buena Vista and Irving

Scott Schools, for-example, should receive attention at the earliest opportunity.

The following general recommendations are made in regard to the toilet-systems:

1. When placed in basements, they should be situated so as to get all the sunshine possible.

2. They should be ventilated through windows not in any way connected with the rest of the building.

3. Both the seats and the urinals should be placed around the walls, so as to face toward the sunlight if possible, leaving the central part of the room open. The placing of two rows of seats back to back across the center of the room to save plumbing is not often justifiable, for this arrangement cuts off much light and, possibly, sunshine, impedes ventilation, and renders the supervision of the toilets very difficult. On the other hand, if the seats and urinals are placed about the walls, the center of the room is free, and a glance by the person in charge will suffice to see that things are in good condition; otherwise, because stalls are hidden one behind another, it is exceedingly difficult to keep these rooms sanitary and preserve a high standard of morality and decency.

4. Almost invariably it was found that the partitions separating the stalls are needlessly high, sometimes 3 feet higher than they should be. This means, of course, an unnecessary expense, besides cutting off light and ventilation. The only excuse for surrounding a seat with partitions and doors is privacy, and walls 7 feet high are not necessary to insure privacy for a small child. The partitions and doors should be as low as possible consistent with their purpose.

5. It is especially urged that whenever toilets are reported out of order, they should be attended to immediately. A great many of the seats were found out of order, and the information available was that they had been reported frequently but had not been repaired. This is inexcusable. If the board of education had direct control of repairs on school buildings, as recommended in this report, such repairs could be made more promptly.

6. Old-fashioned trough urinals have been installed in new buildings of certain types, and so far these have been fairly well cared for, but it is only a question of time when the acid will gather in these troughs, corrode the underlying metal, and cause trouble. Besides, it seems to have been thought unnecessary to set these troughs at different heights. In many schools the small boys can not use them with any degree of comfort or ease, while they may be too low for the largest boys.

The proper adjustment of sanitary fixtures of this sort to suit the different ages of the children will operate to segregate them, an excellent thing both for physical and moral reasons. It is earnestly

recommended, therefore, that if any more of this type of urinal are used, they be set to meet conveniently the demands of the children, and that those that are now set should be changed to meet these demands. The glass urinals used in other buildings, sometimes set against the wall, and more generally in double rows in the center of the room, are not proving satisfactory. In the first place, it was very rare to find the fan, installed to create a draft through these, running. In one building the janitor did not know the fan was there, although he had been in charge of the building four years. These fans are not necessary if the toilet rooms are properly equipped, cleaned, flushed, and lighted, constantly ventilated by means of windows, and sufficiently isolated from other parts of the building.

A good illustration of the evils of poor ventilation in toilets can be seen in the Mission High School. The boys' toilet in this building was in a very insanitary condition, and so poorly ventilated that the odor was annoying. Such conditions as were seen here are not only unhygienic, but productive of immorality.

The urinals in best condition were those furnished with porcelain stalls automatically flushed. The only suggestion necessary concerning these is that special pains should be taken in setting them, and that no part should be higher than the surrounding floor. It would be a good plan to surround the lower part of the front of this type of urinal with a strip of tiling instead of cement. The reason for this recommendation is obvious.

7: In few cities is the number of toilet seats so small as compared to the number of children as it is in San Francisco. In the Grant School there were only 7 seats for 300 boys and 12 seats for 250 girls; in the Madison School, 7 seats for 350 boys and 12 for 350 girls; and others in like proportion. Special inquiry was made concerning the need for more, but the principals generally declared that they had not felt any urgent need for an increase in number.

It would be unjustifiable to install a greater number of seats than are actually needed, but it is still more unjustifiable to cause inconvenience by reason of the need for more. Observation showed that there were times when children had to wait, to their disadvantage, for lack of a sufficient number of both seats and urinals, more especially for lack of seats. It was noted, however, that the teachers so managed the classes that the children were dismissed at different times, and this of course obviated some of the difficulty. The congestion at recess and noontime was, however, especially marked in some schools.

8. With very few exceptions, the toilet seats are all too high for the primary children. This is a matter that no one seems to have considered carefully. In the future, when new buildings are to be supplied with these necessary fixtures, a due proportion of the seats

should be of the proper size and height for small children, and they should be set in such a way as to accommodate them easily and readily.

No argument is necessary to show the importance of this recommendation, but it may be of value to emphasize the point a little and say that if adults had to use seats almost as high as their waists, they would realize how the little folks are handicapped. It would indeed be a striking lesson if some one would equip a school (and especially the sanitary arrangements about a school) with appliances as much too large and out of proportion for adults as many are now for children. Such an illustration would not only surprise those who equip school buildings, but would be a reminder to those who install plumbing in their homes.

With rare exception no obscene or indecent writing or drawings were found in the boys' toilets; the few instances observed were in those old, outer buildings, which of their very nature invited such indecencies.

With very few exceptions the janitors have apparently done their best to keep the toilet rooms in good condition, and since they are not allowed to do any repair work at all, when things get wrong they oftentimes have to wait too long before the repair man puts them in order. This phase of the division of labor in the schools of San Francisco represents an extreme which at times becomes most irritating. Frequently a slight adjustment, which any intelligent janitor might be able and willing to make must wait until the one whose general business it is to look after such things comes around.

DRINKING FOUNTAINS.

The problem of supplying sufficient drinking fountains of the proper type, and of locating them in the proper place in sufficient numbers and in such a way that the children can use them, has not been solved in San Francisco. Most of the drinking fountains are placed out of doors. Since the weather is never cold enough to freeze the water, this is justifiable; but the fountains are likely to be interfered with by the general public outside of school hours, and it is safe to say that fully half of the drinking fountains in the school yards were out of order, or at least were not serving the children properly, at the time the schools were visited.

It is a serious error to set all drinking fountains so high that the little folk who make up the larger part of the school population can not get to them without climbing upon boxes or upon the plumbing fixtures. The method of setting these drinking fountains, and the type selected, illustrate how little thought is given to actual child needs. Little folk need to drink oftener than older children, and they are less able to help themselves, and why these fountains should

be placed almost out of their reach in so many cases is beyond comprehension. It is earnestly recommended that in the equipment of future buildings more attention be given to selecting drinking fountains which are least easily broken or put out of order and which are at the same time sanitary, and that a sufficient number of them be set to accommodate in the proper way the smaller children. It would be better to make them all low than to make them all high, but it is not necessary to do either.

The use of the ordinary faucet as a drinking fountain is probably more to be condemned than the use of the common drinking cup, because cups will be washed occasionally, but ordinarily fixtures are never washed except by the children themselves with dirty hands.

The general provision made in most new buildings to filter water for drinking purposes is to be commended. So far as it was possible to determine, the San Francisco school children have access to wholesome water.

PORTABLE HOUSES.

San Francisco has had an unusual experience with temporary or portable school buildings. Many of these were installed directly after the fire, and some of them are still doing service. One of the striking things in the investigation was the wholesome condition of most of these temporary buildings. The impression of the average observer is that the children in such temporary buildings are not as well cared for as they would be behind the walls of some expensive building; but as a matter of fact, the temperature and the atmospheric conditions in many of the temporary structures were better than in the newer buildings. This was chiefly because the teachers made a special effort to ventilate carefully, and to care for the fires, these portable buildings being heated by stoves placed in the classrooms.

One serious blunder was made, however, in planning these buildings. The windows were placed on the left as they should be, but instead of being to the rear of the classroom, in most cases they are toward the front. This makes the light from the two front windows fall almost directly into the eyes of the children as they sit at their desks. The windows should all be to the rear on the left, so as to leave as large an unglazed space as possible in the wall to the front. In many cases these rooms would be better lighted if the front window, and sometimes the two front windows, were darkened by shades. If these buildings are to be used much longer, this mistake in the placement of the windows should be corrected.

When portable buildings are grouped in a noisy place, or too near outbuildings, or in low ground, or in the shadow of other buildings, they are, of course, not satisfactory. The conditions at the Fair-

mont School are especially bad, and should be corrected at the earliest possible moment.¹

The main buildings, about which these portable buildings are grouped, generally occupy the best part of the lot; and hence some of the disadvantages of these buildings arise from the fact that they are placed too near the street or in some other unsatisfactory location. When these buildings are properly constructed, when the classrooms in them have good light and ventilation and are kept with as much care as are classrooms in the main buildings, they are proving quite satisfactory for school purposes. They have served the city well, but should be used now only as temporary quarters to accommodate an unexpected increase in school attendance.

OPEN-AIR SCHOOLS.

Although the climate of San Francisco renders it an ideal place for open-air schools, little in this direction has yet been done. The work being done on the portable buildings in connection with the Sarah B. Cooper School promises well. The work of the Society for the Prevention of Tuberculosis is to be commended for its efforts to interest the city in this work.

Very few places in the country offer such splendid opportunities for open-air schools as San Francisco. The expense of clothing and equipment for open-air school children in the mild climate of the western coast will be much less than in the severer climate of the inland and the East. In all the new grammar schools to be erected provision should be made for one or more classes in the open air. Provision could be made easily for such classes in some of the buildings now in use. For example, the roof of the Sarah B. Cooper School offers splendid opportunity for open-air classes both for the health of the children and for their general welfare. It would cost little to make the necessary arrangements.

We are coming to realize that it is poor policy to wait until children contract tuberculosis or become dangerously anemic before they are put into open-air classes. When removed from stuffy, crowded schoolrooms to open-air schools, growing children show not only the effect in good health, but a considerable advantage in mental alertness and interest. If it were not for tradition and the unnatural demands that people have fastened on themselves for an indoor life, San Francisco would no doubt soon teach more than half of her children in open-air schools. One of the most astute and intelligent American physicians has predicted that the time is approaching when all schools will be open-air schools, and that we shall learn for all time that fresh air and sunshine are necessary elements in our educational procedure.

¹ It is understood that a new building for this school is shortly to be constructed.

FIRE PROTECTION.

At the time this part of the survey was conducted there was a marked agitation among the people of the city regarding greater precaution against fire hazards in the schools. This was doubtless partly stimulated by the experience of the great fire some years ago; also by some recent tragic experiences in the East. The board of education had gone to a good deal of expense in erecting somewhat elaborate fire escapes from the various buildings, and were being called on for further work in this direction. There is no more serious duty devolving upon boards of education in large cities than that of taking every possible precaution against the danger of fire while school is in session, as well as after school hours.

It was noted that some of the recent fire escapes constructed at the schools were so steep, and so peculiarly placed, that the possibility of using them as successfully as the regular stairways for getting children out of the buildings, should a fire suddenly develop, would be questionable. The excellent fire drills organized and practiced everywhere in the city are to be commended, however. These drills were tested on numerous occasions, and in every instance the teachers were definitely prepared to handle the children in a very satisfactory fashion and to empty the school buildings in a remarkably short time without any hurry or rush. If more careful attention were given to making the basements of all new buildings entirely fireproof from within, especially in and about those rooms where the heating plant is located, to making the stairways fireproof, and to constructing a sufficient number of stairways with proper exits, the danger to the lives of the children when in school buildings would be very slight indeed.

In the long run, therefore, it is safer and better to spend more money on fireproof protection rather than more money on fire escapes. To be sure, in the old wooden buildings, and in those more recently constructed in which there are possibilities of danger from within, it is necessary and important to furnish every possible opportunity to get the children out of the building and out of the way of danger should a fire break out. Some of the fire escapes connected with the wooden buildings are so placed that when the children are brought out into a restricted playground with no adequate exits therefrom they might be caught in a trap after getting out of the building. This danger is especially noticeable in the Sherman School. Some provision should be made in the rear of the playground for the children to get away from the building quickly in case of fire, for the building itself almost covers the front of the lot, and the narrow passages between the building and adjoining properties on the east and west might be blocked in case of actual fire. Doors in the back fence facing Green Street might be opened

at small expense, making it possible for the children to escape much more safely and readily.

Janitors and principals need to be emphatically cautioned concerning the use of basement rooms for the storage of all sorts of inflammable material. Rooms in which kindling and coal are kept should be thoroughly fireproofed and should not be a part of the furnace room. As indicated elsewhere in this report, dangerous conditions were observed in some of the schools. Kindling was stacked up entirely too near the furnace. Barrels of floor oil, waste paper, maps, etc., should be kept as far from the furnace as practicable, and everything that would tend to produce spontaneous combustion excluded from the building. In the attic of the Mission High School were found many buckets partly filled with paints and oils, and overalls saturated with oil and paint. Oily mops and the lint from these are especially dangerous.

In practically all the buildings, except a few of the older ones, special fire hose is provided in ample amount; but inquiry showed that in a number of instances the janitors did not know how to get the hose down and use it in case of fire. The janitors in every building should be sure that all fire hose is ready for any emergency and should know how to handle the hose without hitch or hesitancy.

A number of the older buildings are still using coal stoves in each room for heating purposes. This naturally increases the danger from fire, and makes it very difficult for the janitors to care for the building. These buildings will doubtless be displaced at the earliest possible moment. Such buildings as Hamilton Grammar School, Horace Mann Grammar School, the Everett School, the Emerson School, and others of this type, while often in a fair state of repair, because they were well constructed, still are so badly adapted to modern school conditions, and so poorly lighted, and have so large a fire hazard that they should not be tolerated any longer than is absolutely necessary. Three-story buildings, such as many of these old structures are, should not be permitted, especially for elementary grades.

The matter of fireproofing against the danger of fire from without is a matter that the board of education and the commissioner of buildings and grounds should consider. San Francisco thus far has been very fortunate with reference to fires in school buildings, aside of course from the great disaster of some years since; but this should not operate to beget a carelessness in taking every reasonable precaution against this danger.

There is far more danger from possible earthquakes to poorly constructed buildings than from fire, for in the former case little time is offered to escape. Every school building in the city should be so constructed as to be more than reasonably safe from damage by earthquake.

There are certain buildings which should be thoroughly examined, and special precaution should be taken to prevent the outbreak of fire. This is notably true of the Mission High School. One small fire occurred there recently, and it is very fortunate indeed that it was discovered before it had made any serious progress. There are great opportunities, through shafts that are not fireproof and through openings to the roof, for a fire once thoroughly started in the basement to run through the whole building at an alarming rate. Immediate attention needs to be given to this building to render it safer, and to prevent the possibility of serious disaster.

The same may be said of many of the older grammar schools of the type already mentioned, but these dangers are so obvious that no special recommendation is needed in regard to them. The people of San Francisco owe to the children of their city a large outlay for a large number of new school buildings thoroughly constructed against the danger of earthquake and also made entirely safe from fire. A city with the population and wealth of San Francisco, and with its comparatively small school population, should set the world a standard in the construction of safe and satisfactory school buildings.

During the course of the survey the investigators examined with interest the kalamein doors set in wired glass partitions separating the halls from the stairways in a number of the newer buildings, such as the Adams School and the John Swett School. These doors were planned as fire-protection devices. Clearly when school is not in session these doors might be kept closed to some advantage, but in not a single school were these doors found closed during school time, and in no instance save one were teachers or principals found who could say that they had ever been closed during school hours. If these doors are not kept closed they are of no use, and hence represent a useless expense. If they were kept closed during school hours the children could not get out of the building without stopping to open them. Hence, they must be kept open in order that the school may escape if fire occurs. The stairs in this building are made fireproof from within, and if the children were on the stairways the doors could be closed, but the doors would then have no value as protection to the children. With doors and partitions stretched across the halls, as here indicated, it would be difficult for the children to get to the stairways, and a jam in the halls would be much more likely than otherwise. On the other hand, where doors of this type are used to cut off the basement from the stairways, they have real value.

JANITOR SERVICE.

In so far as ordinary sweeping, cleaning, and scrubbing is concerned, it would be difficult to find a more thoroughly cleaned system of school buildings than was observed in San Francisco at the

time the schools were visited. But in the matter of control of the somewhat delicate and complicated apparatus connected with the ventilating and heating plants, as well as with the various devices that could be made to render general conditions more acceptable, the showing was less satisfactory.

It was evident everywhere that satisfactory relations existed between the principal and janitor service. There was no outward sign of insubordination or unwillingness to do all within their power to meet the demands of the school; but the janitor of a modern, well-equipped, thoroughly up-to-date school building must of necessity know a great deal about mechanics and the operation of machinery, even though he be not expected to keep these in repair; but emergencies will arise in which a janitor who knows what to do can be of very great service. Besides, it requires ever more intelligence and ever a better understanding of the laws of health for a janitor to meet the conditions now imposed upon schools.

Vacuum systems are installed in the new buildings; but these seem to be rarely used, many of the janitors declaring that they are used but once a year—during vacation period. Others used them occasionally to clean the rugs and carpets in the principal's office. In a few exceptional cases the vacuum equipment was used regularly in the classrooms.

There are two reasons for this lack of use of the vacuum systems installed. First, with the exception of a very few of the newer buildings, the only openings to which to attach the suction hose are in the halls, one opening designed to serve from two to four rooms, necessitating a long heavy hose, entirely too heavy for women to handle, and in fact too unwieldy for a man to manipulate with any degree of satisfaction. Second, by reason of the length, the friction in the long hose is so great as to reduce the suction to such an extent that the vacuum is not great enough to gather up the sand and dirt from the floors satisfactorily.

Many thousands of dollars worth of vacuum-cleaning machinery installed in the schools of San Francisco is not used sufficiently often to warrant the expense of installation. It is therefore recommended that vacuum systems be not installed except where it is possible to get the janitors to use them freely and easily and to get satisfactory results. Two hose attachments in each hall are not sufficient.

Most of the floors of the schoolrooms of San Francisco have been treated with oil dressing, and the sweeping is done by broom and prepared sawdust. In some of the schools, however, the floors have not been treated with oil or wax since they were laid, and they are in need of immediate attention. As an illustration of this condition may be cited the Junipero Serra, a "special construction" build-

ing, which has been occupied a little more than five years. The boards in the floor are separating and warping. Here the janitor was found sweeping without sawdust, and to protect himself had a great thick cloth hung over his nose and mouth. The inspection was made during the process of sweeping after school, and everything was covered with dust.

Much has been said for and against the use of dustless floor oils. In some cities boards of education have forbidden their use, because of the requirements of underwriters; in others because of complaints from teachers and children. In other cities their use is continued and found very helpful. Floors can be almost ruined by indiscriminate and unintelligent use of oil preparations, and from such carelessness most of the criticisms have arisen. Before floors are oiled they should be thoroughly cleaned, and the oil should be put on in a very light coating after they are dry, so that it may be completely absorbed into the pores of the wood. There can then be very little objection on the part of either the underwriters or teachers and children, and the floors can be kept clean much more easily.

In any city as large as San Francisco there should be established janitor schools for the instruction of janitors in regard to their very important duties having relation to the health, decency, and general welfare of the children. Instruction should be given in these schools by superintendents, engineers, experienced janitors, and others who have given special attention to school sanitation.

The work of janitors is not limited to sweeping, building fires, and keeping all things in order. They come in direct contact with school children during the most impressionable years of their lives, and if prepared for their work they can be of very great moral service to the school as a whole. They need knowledge of the principles underlying their work. The rule of thumb does not enable one to adjust oneself to varying conditions, and therefore breaks down when conditions change.

There are many things about the school buildings of San Francisco of which the janitors are not well informed, and in fact of which many of them are wholly ignorant. Apparently no one has taken any special pains to instruct them and to follow up their work to see that intelligent service is rendered. Still it is not unreasonable to ask that those who undertake to do a definite and a serious public service make thoroughgoing preparation before doing so.

A school for janitors, as here suggested, should be adapted to the limited time at the disposal of those engaged in it, and should be held at several centers rather than at one place. The expense would be very small in comparison with the good to be accomplished and would be more than saved in the more economic and effective

service rendered. A slight improvement in the oiling of floors and in dustless sweeping compounds, and the methods of working them, would be of very great value to the health of the children and the general esthetic side of education.

HEALTH INSPECTION.

The health and physical development of children are of the greatest importance and must be provided for in the schools. Health inspection of school children is becoming common in all progressive countries. It does not need to be argued that this phase of school work influences directly and indirectly the progress of general education. Mental growth and development are so interrelated with physical well being and so dependent on it that teachers can not reasonably hope for satisfactory progress by physically defective or undernourished children. The best heritage and asset which any child can acquire is sound health and a well-nourished, well-developed body.

The schools of San Francisco are not now giving sufficient attention to the subject of health. Three physicians and 14 nurses can not possibly know the special physical needs of each and all of the school children and minister effectively to them.

Each child when entering school for the first time should have a thorough physical examination, so that the teachers may have the necessary information to deal with all intelligently. A certain percentage of the children are mentally backward, and these should be discovered by mental tests or measurements, and segregated for their own good as well as for the benefit of the majority.

But these initial examinations and measurements are only the beginnings. Annually, thereafter, all the children should be reexamined and those who show the need of special attention should be examined oftener. The mere examination of school children and the tabulation of normalities and abnormalities, however carefully made, will do no good unless plans, programs, and exercises are adjusted to suit their needs. This follow-up work devolves on teachers and nurses. The teachers have the children under their instruction daily and can adjust their work and study their progress as no other school officers can. The nurse can visit the home, study the outside environment of the child, and in many ways bring the home into cooperative relation with the school to the advantage of all concerned. The medical inspectors can suggest methods and means in special cases, organize and develop clinics, and cooperate with the school officers in all matters pertaining to personal hygiene, school hygiene, and sanitation.

All the newer buildings in San Francisco are provided with special rooms for the school nurses. These rooms are for the most part

sufficiently equipped for all ordinary purposes. The number of nurses should be increased, however, so that all may have more time to devote to the follow-up work, both in the school and the home. It would also be to the general welfare of the school children if all the activities of the department of medical inspection were under the control of the board of education rather than under the board of health. Such a change would coordinate the work of supervision and render cooperative work more general and effective, and is recommended.

To be sure, any system of medical inspection, whether under the board of health or the school authorities, should be in close touch with the board of health and should work for the general health of the community. Certain rules and regulations made by boards of health must apply to schools as well as to any other municipal activity. Still, the experience of the past 10 years shows a decided preference for the organization here suggested. Whether this change is made or not, more health officers should be assigned to this work in the schools. It would be good economy to use at once the full time of five well-trained physicians, of one specialist in mental hygiene, and a sufficient number of dentists to direct in a thorough way the health work involved.

San Francisco has many advantages in climatic conditions, but as a great world port she has to meet the dangers of contagion both from within and without. The population is strikingly cosmopolitan, and the ideals of health and sanitation are accordingly varied and diverse. The schools are doing wonderful work in molding the mass of children into a more unified and composite intellectual type. The health department has the opportunity of setting up standards of cleanliness and health that can become one of the city's best safeguards. For example, if all the money which is now wasted annually in the city for dangerous patent nostrums could be saved through proper health education, it would many times overpay all the expenses of health supervision.

Good health has a direct and definite bearing on good citizenship and means much for the State as well as for individual happiness and prosperity. Health inspection and medical attention in the schools are therefore fully justified in every way. A sound mind and a sound body are twin elements in the process of character formation and can not be divorced without danger to the individual and to the State. Mental deficiency often grows out of physical deficiency, and often the most direct means of improving moral and mental conditions is through the relief of bodily ills and the establishment of a sound and wholesome physical life. The criminal classes are recruited to a surprising degree from the defective classes.

The present attempt at segregation of mental defectives from normal children, and the development of special schools for these unfortunates, are mere beginnings. The most expensive citizens in general are those who from one cause or another are handicapped intellectually, morally, and physically. It would therefore be good public economy for the municipality to require the school authorities to make a much more careful search among the school children for those who are in need of special help and training, and to classify and provide for them according to their needs. There are imbeciles and weaklings scattered about through the schools who can never do the intellectual tasks set them. They will always be children from the point of view of mental development. Many such may be saved from a life of crime by training designed to fit them to perform in a satisfactory way some of the useful occupations of life.

There are some children now in special schools who properly belong in State institutions. These should be removed from the schools both for their own sakes and for the safety of society. If such suggestions as are here implied are followed out, the police and courts will in the near future have less to do than now.

It is impossible not to note in this connection the miserable accommodations now furnished an "ungraded" school in two temporary rooms on Union Street. Here a number of backward children have been segregated that they may be given special attention. The rooms are badly lighted, the lot is unattractive, and conditions are ill adapted for outdoor exercises. There is no provision for gardening or nature work, the toilets are in an outside shack near the front and in bad condition, and the whole environment is unfavorable.

Climatic and other conditions make it possible for those who have charge of the health work in the school to develop high standards, but for this are needed additional help, more time for health teaching, more regular physical examinations of all the children, and better and fuller provision for such corrective treatment as those who are unable to command private help should have.

Clinics, both general and special, are needed, and these should be arranged for at the earliest possible time. It does no good to find that a child has a bad case of adenoids and then let it go on without help. If parents will not or can not have a child's teeth treated when a report from the school health office shows this to be urgently needed, then the schools should provide for it. School dental clinics are found in most progressive cities and should be established in San Francisco. They can be made self-sustaining at small cost, if this seems necessary.

Finally, health inspection should include more cooperative work of teachers, janitors, principals, and superintendents in regard to school hygiene and sanitation. This would be easier if the health inspection were under the direction of the board of education as recommended.

Those connected directly with the health inspection and all school officers and teachers must more and more interest themselves in health and in keeping children from becoming ill, in prevention rather than cure.

The services of the nurses in the schools of San Francisco are much appreciated by the teachers, and, considering the number of children apportioned to each, the nursing work is being well done. The nurses are prepared for their work and exhibit a lively and intelligent interest in all that has thus far been assigned them to do.

) SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

1. The board of education should be given power to anticipate needs and purchase school sites of sufficient size and in strategic places before actual need drives them into the market.
2. Especial care should be exercised in selecting sites upon which it will be possible to erect buildings with east and west exposure for the classrooms.
3. Larger playgrounds are seriously needed. It is better, if a choice is necessary, to have less expensive buildings and more playground. San Francisco is able to supply both good buildings and ample playgrounds and should do so.
4. Some exceedingly poor construction work has been permitted on some of the new buildings. The roof of the Lowell High School is cited as an illustration.
5. Good fireproofing and better and safer stairways would lessen the need for fire escapes. The fire escapes now in use are not satisfactory.
6. More fan power than that now generally in use is needed to insure proper ventilation in classrooms when windows and doors are closed.
7. Unless sufficient fan power is supplied, it would be better to heat the buildings by some form of direct radiation and depend on windows for ventilation.
8. Thermostats should be more carefully supervised, and all parts of the control apparatus connected with them should be installed in places easily accessible.
9. Plenum chambers and all air passages must be kept scrupulously clean.
10. Vacuum cleaners should be so installed that they can be used easily and effectively, or not installed at all. The plan of installation now in use is wholly unsatisfactory, and these sanitary helps are thus practically useless.
11. All basements should be cleared of all inflammable materials.

12. A central warehouse should be used for storage, and all supplies and furniture distributed therefrom as needed, and returned when not in use.

13. Drinking fountains should be set at the proper height for children, and kept in order.

14. Toilets. (See specific recommendations concerning toilets in section under this heading.)

15. Assembly rooms should be placed on first floor above the basement, and lighted from two sides. The attempt in grammar schools to use one large room in the basement for an assembly room, gymnasium, and overflow classroom operates to curtail assemblies and eliminates gymnastics. Such rooms are unsatisfactory for classrooms.

16. Basement rooms should not be used for classrooms unless properly lighted, free from ground air and moisture, and lighted from east or west. Such basement rooms as those fitted up in the Hearst, Emerson, and other schools of this type are insanitary and unfit for occupancy by school children.

17. Domestic-science rooms should be on the top floor rather than in basements.

18. Transoms in school buildings are troublesome and should be dispensed with.

19. There should be slate blackboards in all permanent buildings.

20. Many blackboards are in bad condition and need immediate attention.

21. Blackboards should be set as follows: First and second grades, 26 inches above floor; third and fourth grades, 28 inches; fifth and sixth grades, 30 inches; seventh and eighth grades, 32 inches; high schools, 36 inches.

22. Blackboards should not be over 42 inches wide, except for the teacher and for an occasional special room.

23. As far as possible all classrooms should receive light from either the east or west side and from no other direction.

24. Art rooms should have the north light. Laboratories, offices, and libraries, may receive light from any direction.

25. Assembly rooms should be lighted from two sides, but not from the front or rear.

26. The bottoms of windows in classrooms should be at least 4 feet above the floor.

27. Windows, properly placed, should have glass surface equal to one-fifth the floor surface.

28. The windows should be kept clean.

29. Double-hung sash are the easiest for women to handle.

30. Rounded or arched tops and other architectural ornamentations of windows introduce difficulties in lighting. Rectangular windows set as high as possible give the best results.

31. The medical or health inspection should be under the control of the board of education, rather than the board of health.

32. The full time is needed of 5 physicians, 1 specialist in mental hygiene, 20 nurses, and an efficient staff of dentists.

33. More open-air schools should be established. In all new grammar schools to be erected provision should be made for open-air classes.

34. More careful segregation of defective children is of immediate importance, and a more thoroughgoing attempt to train them properly should be instituted.

Chapter VI.

THE ELEMENTARY SCHOOLS.

THE POINT OF VIEW.

In passing judgment upon the efficiency of a modern school system we should keep in mind a comprehensive and ideal aim, with direct reference to the actual conditions and needs of modern life.

The school course should be conservative in the best sense, giving full recognition to the old standard school subjects, and likewise progressive in the best sense, receiving hospitably into the school course those new studies which the conditions of modern life demand.

We realize also that our schools are now in the very process of sweeping changes and readjustments between the older and newer forces in education and that a reorganization of our curriculum is now demanding our serious attention.

Many of our larger and smaller cities are making such rapid and important changes that it is difficult to determine just what the accepted standards for courses of study are and to find a basis of comparison between courses in different cities. Under these circumstances a modern school system must be judged not only by its past standards but also by the progressive spirit of its teachers, by their dynamic energy in pushing forward to solve new problems.

The following statements will serve to show our point of view in judging a school system:

The purpose of the elementary school is to qualify boys and girls to satisfy the demands of right living under modern social and industrial conditions.

The course of study and all the school activities should be so selected and organized as to promote the all-round development and efficiency of children, both while they are growing up and coming in contact with their life surroundings and also for later service.

The course of study should be strongly organized throughout its total length and in its mutual correlations, so as to give a natural and vital continuity in the whole process and a steady growth and organization of right habits.

The school should provide for a harmonious development of the physical, mental, and moral powers of children with a constant view to their life uses.

This part of this report will deal with the following topics in the order named: Organization of schools; course of study; discipline and instruction; supervision; selection, promotion, improvement, and tenure of teachers.

ORGANIZATION OF SCHOOLS.

The organization of the elementary schools of San Francisco is in some respects peculiar. Day and night schools are provided with separate corps of principals and teachers. Besides those schools which are provided for special types of children, such as the deaf, the feeble-minded, and the incorrigible, the regular day schools are of five types: The primary school, including children of the first three grades usually, but sometimes also of the IV and V grades; the grammar school, provided for children from the V to VIII grades and sometimes including also the IV grade; the "all grades" school; the cosmopolitan school, which provides in addition to the regular course of study instruction in one or more modern foreign languages; and the intermediate school which, with the exception of the Hamilton Intermediate, which includes the B grade, enrolls children of the VI, VII, and VIII grades only and furnishes instruction in manual training, domestic science, shorthand and typewriting, bookkeeping, and one or more foreign languages. Schools of these various types are scattered more or less promiscuously throughout the city. Four or five schools are sometimes found within a few blocks of each other. The city is not districted for elementary education, and a child living in any part of the city is in general recognized as having the right to attend school in any other part to which his parents choose to send him. This, coupled with the fact that principals' salaries are determined by the number of children of primary and grammar grades enrolled in their schools, furnishes an interesting but obviously undesirable situation. It opens the way, for example, to possible rivalry and bad feeling among the schools in bidding for the attendance of children. It permits and encourages unnecessary shifting of pupils from school to school and allows a considerable number to be lost sight of altogether. The actual amount of such shifting varies in different parts of the city, being considerably greater in some districts than in others. In the John Swett School, for example, the number of pupils at the beginning of the school year was 838, the number of entrants from July 26 to February 2 was 589, the transfers to other schools during the same period was 242, and the number of children who left without notice was 342. This is perhaps an extreme case, but it shows a failure to keep in touch in any definite way with the children of the city.

When these types of schools are compared on a basis of their per capita cost, some interesting questions arise which ought to be

answered by the school authorities of the city. The following table gives the number of pupils enrolled, the number per teacher, the number of teachers, the average salaries of the teachers, and the cost per pupil of instruction in 33 schools chosen at random and arranged in five groups according to the number of pupils enrolled.

TABLE 112.—Some facts concerning elementary schools in San Francisco.

Schools.	Total number of pupils.	Pupils per teacher.	Teachers.	Average salary of teachers.	Per pupil cost of instruction.
GROUP 1. SCHOOLS HAVING 700 OR MORE PUPILS.					
Adams (cosmopolitan).....	704	44	16	\$1,221	\$30.84
Agassiz (primary).....	856	42	20	1,084	27.85
Bay View (all grades).....	713	43	16	1,114	27.27
Bernal (all grades).....	843	47	17	1,140	27.04
Bryant (cosmopolitan).....	718	42	17	1,168	30.66
Fair Mount (all grades).....	1,109	46	24	1,106	25.40
Franklin (all grades).....	708	44	16	1,035	25.23
Garfield (primary).....	873	40	19	1,083	26.04
Grattan (all grades).....	813	48	17	1,185	27.20
Horace Mann (intermediate).....	890	35	25	1,140	35.83
Jean Parker (all grades).....	775	46	17	1,154	28.33
McKinley (all grades).....	808	50	16	1,102	24.60
Portola (all grades).....	879	46	19	985	21.62
Everett (all grades).....	854	47	18	1,198	27.15
GROUP 2. SCHOOLS HAVING FROM 500 TO 700 PUPILS.					
Cleveland (primary).....	510	42	12	1,032	27.61
Crocker (intermediate).....	530	29	18	1,191	44.85
Hamilton (intermediate).....	639	34	19	1,304	39.47
Oriental (all grades).....	558	51	11	1,108	25.07
Pacific Heights (all grades).....	618	38	16	1,210	35.30
Grant (all grades).....	518	43	12	1,053	27.87
Mission (grammar).....	622	44	14	1,183	30.00
Yerba Buena (all grades).....	522	43	12	1,157	30.05
Hancock (grammar).....	653	37	18	1,145	34.92
GROUP 3. SCHOOLS HAVING BETWEEN 300 AND 500 PUPILS.					
Burnett (primary).....	435	44	10	1,150	26.43
Daniel Webster (primary).....	407	41	10	1,018	28.85
Deaman (grammar).....	480	44	11	1,180	31.17
GROUP 4. SCHOOLS HAVING BETWEEN 100 AND 300 PUPILS.					
Buena Vista (primary).....	202	34	6	1,202	35.70
Columbus (primary).....	188	29	5	1,182	38.49
GROUP 5. SCHOOLS HAVING LESS THAN 100 PUPILS.					
Andrew Jackson (primary).....	78	39	2	1,242	31.84
Ethan Allen (parental).....	86	43	2	1,320	60.23
Paul Revere (all grades).....	17	17	1	1,320	77.65
Rincon (primary).....	77	39	2	1,272	33.04
Parkside (primary).....	44	22	2	1,080	49.09
Hunter's Point (all grades).....	18	18	1	1,320	73.33

The average cost per pupil for instruction in all schools having more than 700 pupils each is \$27.76. The average cost per pupil of "all grades" schools having 700 or more pupils each is \$26.39. The average cost per pupil of cosmopolitan schools of over 700 pupils is \$30.79 and the per pupil cost of the one intermediate school having more than 700 pupils is \$35.63. Are the cosmopolitan schools of this

size worth 17 per cent more per pupil and the intermediate school 35 per cent more per pupil than the "all grades" schools of the same number of pupils.

The average cost per pupil of schools having 500 to 700 pupils is \$32.80. Are schools of this size worth on the average 18 per cent more per pupil than schools of 700 or more pupils? The average cost per pupil in "all grades" schools having between 500 and 700 pupils is \$29.57, or 12 per cent more than the same type of schools having 700 or more pupils. The average cost per pupil of the intermediate schools in this group is 18 per cent more than for the same type of school in the other group and nearly 43 per cent more than the "all grades" schools of the same group. They also cost nearly 30 per cent per pupil more than the grammar schools of the same group.

Why should the Pacific Heights School having 618 pupils and a school of all grades cost 41 per cent more per pupil than the Oriental, having 558 pupils and being also an "all grades" school? Why should it cost 27 per cent more per pupil than the Grant, also an "all grades" school having 518 pupils? Is the Crocker Intermediate School (530 pupils) worth 49 per cent more per pupil for instruction than the Mission Grammar School (622 pupils)? It costs so much more. Is the Hancock Grammar School (653 pupils) worth 16 per cent more per pupil for instruction than the Mission Grammar School? It costs 16 per cent more. The average per pupil cost of instruction in five schools having less than 100 pupils each, not including in this list the Ethan Allen Parental School or the ungraded primary for mentally defective children, is \$52.95, and in two of these schools enrolling less than 20 pupils each and taught by men the average per pupil cost is \$75.49. Just why these two schools are maintained as separate schools at such great cost it would be hard to say.

Obviously great waste would be eliminated (1) by a thorough-going study of the actual results secured in the various types of elementary schools now in operation, to ascertain which type is the most efficient and economical, and (2) by the ultimate reorganization of these schools in accordance with the results of this study. This is a thing not to be done by outside surveyors, but by the school authorities themselves.

The general movement in city schools toward the separation of children into homogeneous groups for the purpose of improving instruction has not gone very far in San Francisco. A small but good beginning has been made, however, especially in the instruction provided for deaf and feeble-minded children. In the case of the ungraded primary school for feeble-minded children located on

Telegraph Hill, the building and environment are exceedingly bad. It is indeed hard to realize that a wealthy modern city like San Francisco would permit the use of such a building for any school purpose whatever. We found there 24 feeble-minded children in care of an intelligent woman conscious of her problem, deeply interested in these unfortunate children, devoted to her work and doing it well. She had just been given an assistant who also appeared to be well trained for this kind of work and generally interested in it. There is also a room for feeble-minded children at the Buena Vista School, so that altogether 37 feeble-minded children are provided for. How exceedingly inadequate this provision is appears when one considers that by the most conservative estimate there must be at least 250 feeble-minded children in the city who, if they are in school at all, are enrolled in schools provided for normal children. There is great need of a well-equipped psychoeducational clinic in charge of an expert to discover these children, place them in schools suited to their needs, and provide for them the right kind of instruction. An unfortunate backward step was taken when the ungraded classes formerly provided in some of the schools were abandoned. There is great need of an ungraded room in every large school, or, better still, of ungraded centers of two or three rooms conveniently located so as to be easily accessible to the children who are to be sent to them. This latter plan permits of more handwork and better grouping of the children for instruction.

To these centers three types of children should be sent: (1) Mentally backward children who are not sufficiently backward to be classed as feeble-minded; (2) borderline cases, or children concerning whose proper placement the clinicist is for the time being uncertain; and (3) restoration cases, or children who are mentally normal but pedagogically backward in some of the regular school subjects and who need to be quickly brought up in those subjects and returned to the regular schools for normal children.

Three rooms in the Golden Gate School were found devoted to the education of deaf children. The work observed in these rooms was excellent from every standpoint, but here again the number of children provided for must be but a small fraction of the deaf children of the city, and no provision is made for stutterers, stammerers, and those whose speech is otherwise seriously defective.

TIME ALLOTMENT.

The present time allotment gives to the various subjects the following percentages of the total time of the elementary course of study (Grades I to VIII inclusive):

Time allotment.

	Per cent.
Calisthenics.....	4.1
Art.....	5.4
Music.....	5.5
Domestic science or manual training.....	1.7
Nature study.....	3.2
Physiology and hygiene.....	1.4
Penmanship.....	3.9
Reading and literature.....	30.3
Language and composition.....	9.8
Spelling.....	5.4
History and civics.....	6.0
Geography.....	8.1
Arithmetic.....	16.0

A glance at this distribution shows that the group of subjects including reading, literature, language, composition, and spelling consume nearly one-half the total time devoted to elementary education. To reading and literature alone nearly one-third of the time is given. Comparison with the average distribution of time in New York, Chicago, Cincinnati, Indianapolis, Cleveland, and St. Louis shows that San Francisco gives nearly 15 per cent more time to reading and language work, including spelling, about 14 per cent more to arithmetic, and nearly 33 per cent more to geography, history, and civics combined than the average of the other cities named. Supplementary material of all kinds—books, maps, pictures, lantern slides, stereographs, museum collections, etc.—for the most effective teaching of reading and language, history, civics, and geography is not too abundant in any of these cities, yet in some of them the average school is supplied with 10 times as much supplementary material as was found in some of the best-equipped schools in San Francisco. When one considers the almost complete absence of such material in some of the schools visited, it is evident that much time must inevitably be wasted and even worse than wasted when we take account not only of the meager content of knowledge, the monotonous repetition and drill, but also of the unfortunate attitude of mind and the undesirable habits of thinking, reading, and study that must result.

THE COURSE OF STUDY.

Sources of information.—The latest complete published course of study for San Francisco schools is that of 1911, and on account of certain changes that have been made it is partly out of date. We found that copies of this course were scarce and difficult to obtain. On account of a shortage of funds for printing, the teachers have not been supplied with a fully up-to-date course which is authoritative in its directions to principals and teachers. A well-defined course of study in the hands of every teacher, giving general directions

without over-exacting details, is a fundamental requirement of a good school system. The outline of a supplementary course was published in 1915, which makes a few changes and gives more precision to the course by outlining the year's programs according to the adopted textbooks.

These two reports on the course of study for 1911 and 1915 are kept in mind in the following survey of the course of study. The outlines and suggestions for other special subjects are issued separately.

General character.—This course of study was laid out with much wisdom and acumen with reference to the older standard subjects. Many of the general proposals are well conceived, but the work observed in the schools falls short of their well-phrased theoretical statements.

The 1911 course, combined with the supplement, suggests a minimum outline, stripped of nonessentials and capable of being enlarged and enriched by suitable supplementary material. The suggested eliminations are appropriate, such, for example, as a reduction of technical grammar, simplification in the interest of a more concrete and practical arithmetic, more descriptive and less memoriter geography, choice readings in history and literature, and an effort at simplifying phonetic elements in primary reading.

The continuity of thought work and drill exercises running through the studies of the eight grades is emphasized. Each teacher is called upon to connect up closely with the studies of previous grades and to cooperate with other teachers in giving unity and strength to the whole process of education. All depends upon the thoroughness with which such ideas are carried out in various school exercises.

The general introduction to the course of study lays special stress upon knowledge, and, in particular, upon "recallable" and "recognizable" knowledge. To secure this knowledge "cumulative reviews" are required. These are well-established forms of repetition and drill.

These and other statements in the course of study betray a marked preference for definitely memorized facts and summaries as expressing the final result of training in various studies. This emphasis upon formal drills and reviews shows an evident neglect of the higher spirit of training and culture implied in such familiar expressions as self-activity and independence in thinking, initiative, mental and motor activity in working out problems, practical adjustment to community life, and appreciation of literature and art. Training for efficiency and for service under life conditions is a much higher conception of the purpose of education than mere knowledge of more or less disconnected facts.

The main general criticism to be offered on the curriculum of the San Francisco schools, as shown not only in the printed course but also in the classroom teaching, is the fragmentary and disconnected character of the knowledge materials. The knowledge gathered in the course consists of a collection of more or less important facts which are not well organized into continuous thought movements. In other words, there is a lack of developing continuity of thought, of rational organization of knowledge materials.

Even before teaching begins, in the general framing up of the course of study, we should have a definite provision for strong organizing lines of thought, continuous through the grades. The connections from topic to topic and the correlations should be organic and vital.

In the absence of such connectedness of thought, such rational organization, drills, and so-called "cumulative reviews" are resorted to to make good the deficiency. But mere drills and reviews, while they may fix the facts in memory, do not supply thought connections, and the whole tendency of the class work is to drop down to the level of routine, of formal drills, with a minimum of sound, vital thinking. The big problem, then, is how to bring into the original structure of the course of study such a progressive thought development, such a steady organization of facts around thought centers that teachers in the classroom may have, to start with, a good basis of organization, broad avenues along which to travel in this journey through the course. Then the teachers in the different successive grades can get together, compare notes, and cooperate in working out this close connection of thought. Our present course of study is, to a large extent, miscellaneous and multiplex in its knowledge materials. We have a large collection of more or less incongruous facts and data. The whole thing needs to be simplified and organized. When this has been once well done, teachers in the grades will have a plainer road to travel and may learn to guide children into a stronger thinking and organizing process.

To secure a better basis for a simplification and closer organization of studies, the following proposal is offered:

Sift out and select from the present course a few big, important topics to take the place of a multitude of little topics and of mere facts. Lift into prominence a few big teaching units as centers of organization. As a natural consequence, a large number of little topics will drop out and disappear, or they will reappear in subordination to these centers. This will give opportunity for a fuller, richer study of a few important units and will furnish time to reflect and think out the relations between the facts, to see also the connections from topic to topic, and the correlations with other studies. Two

significant improvements are involved, first a much richer concrete description or treatment within the big topic and second a grouping of all the facts with definite reference to a problem or controlling idea.

An example of this steady continuity of thought running through many lessons and connecting closely from grade to grade through the course is offered in the treatment, a little further on, of San Francisco and the west-coast cities.

As a prelude to this topic we offer the list of names frequently presented in the geographies as important facts, with but little thought of their being tied together by strong thought relations.

The important cities of the west coast of the United States are San Francisco, on the Bay of San Francisco; Oakland, Berkeley, and Alameda, on the east shore. Farther south on the coast, or near it, are Monterey, Los Angeles, and San Diego. To the north is Eureka, on Humboldt Bay. On the Columbia is Portland, and along the coast of Puget Sound are Tacoma, Seattle, Everett, and Bellingham. In a "cumulative review" the list of names in the above order would be repeated and drilled in.

The following is offered as a better treatment of the same topic: San Francisco has long been recognized as the chief gateway of the United States toward the Pacific and the trade of the Pacific. A few years before the completion of the Panama Canal the people of San Francisco began to look for a large increase of trade with the opening of the canal. Why? How were they to meet this situation and take advantage of it? They at once decided to build a lot of new docks on both sides of the ferry station. At an expense of several million dollars they greatly increased their docking facilities. New lines of steamers from the Atlantic (from Europe and the eastern coast) would require ample dockage. What steamship lines with Pacific countries were already using San Francisco docks? Across the bay from San Francisco, Oakland, although it had a shallow swampy shore, began to spend large sums in dredging out a deep water frontage and with the aid of the United States Government soon had a big harbor. Because of its advantage on the east shore Oakland begins to rival or at least hope for rivalry with San Francisco in Pacific trade and shipping.

San Francisco, Oakland, and other towns on the bay have very great natural advantages. But in order to really secure these advantages they have had to spend vast sums in man-made improvements—dredging, wharves, dry docks, warehouses, lighthouses, etc.

Other cities along the Pacific coast have been seeking and working eagerly for this trade with all the world; Los Angeles, for example, found it possible to build up a good harbor 35 miles south of the city on the coast. The Government built a huge breakwater extending 2 miles into the sea, and there, under this protection, Los Angeles

has developed a harbor that within a few years has built extensive docks and is already doing a vast business in ocean tonnage.

San Diego, 100 miles farther south, has naturally a deep and capacious harbor, which has been greatly improved and is now the terminus of one of the great continental railroads, and is beginning a world business.

North of San Francisco 150 miles Humboldt Bay has dredged out its entrance channel to the sea, protected by jetties, and is developing a fine harbor 22 miles long, and already is shipping \$12,000,000 worth of lumber yearly.

In Washington and Oregon the coastal cities are quite as energetic in planning and spending millions on river and harbor improvements so as to share in this coming trade with the world. Portland now has a good outlet over the dangerous bar at the mouth of the Columbia, costing our Government millions for jetties. Portland has great docks, and the canal at The Dalles, connecting the lower and upper Columbia, has recently opened up what is known as the "inland empire."

Seattle, on Puget Sound, has been building docks and growing a great harbor. It has some peculiar advantages for Pacific trade that rank it with San Francisco. In fact Seattle and Los Angeles are very pronounced and successful rivals of San Francisco for inland and world commerce.

This suggests that it will be wise to compare San Francisco with these other cities in respect to great railroads reaching into the hinterland and eastward across the mountains to St. Paul, Kansas City, St. Louis, Chicago, Memphis, and New Orleans.

If we only let the thought grow, this topic develops in a marvelous way. It brings together and organizes around a central developing idea a large amount and variety of important knowledge.

San Francisco and the western coast cities have been working out a great problem, under given geographical conditions, and it is interesting and thought-provoking to the children to study these conditions and think out these problems, the difficulties to be met, the relative advantages of the different cities and the part that man with his wealth and ingenuity plays in determining important results.

We have suggested thus far the outline which is the basis of a much richer and fuller treatment than can be given here. It is observable that all the facts hang together around one center or idea, and this a growing, expanding idea. This is merely one example, suggestive of a center from which knowledge grows, or around which many facts group and organize themselves. A variety of similar examples of big topics can be given in history, science, geography, civics, literature, and industrial arts. The advantage of dealing with such organizing centers, rather than with miscellaneous

collections or catalogs of facts is apparent. This plan if carried out would enormously simplify and enrich the course of study. These growing, expanding ideas worked out as problems illuminate broad fields of knowledge.

But thus far we have told only half our story about the cities. The idea involved in the foregoing series of lessons on San Francisco has a much broader scope than we have thus far suggested. If we allow ourselves to think a little further, we shall notice that New York has had a long and interesting history of harbor improvements, the deep dredging out of the ocean entrance to the Narrows (2,000 feet wide, 40 feet deep), the dynamiting of Hell Gate and clearing of the passage into the sound, the building of extensive docks on the Hudson, on the East River, and at Brooklyn, Staten Island, etc., for various purposes, the navy yard, the lighthouses, the fortifications. A comparison of the extent of natural and artificial advantage of San Francisco and New York would be instructive. At present New York is far ahead of San Francisco. What is the future likely to bring?

Boston, likewise, has an interesting historic harbor, not so deep as New York but adequate for most ocean vessels. How do its shipping and docks compare with San Francisco? The improvements at Boston have been extensive and growing.

Philadelphia, on the Delaware, has also a valuable ocean trade. The river has been deepened and needs deeper dredging for still larger ocean shipping.

Baltimore, Norfolk, Charleston, and Savannah have had large improvements, jetties, etc., added to their interesting natural advantages. What are they?

New Orleans with its jetties at the delta, and Galveston with its sea wall, and Port Arthur are well worth studying and comparing with San Francisco. Chicago, Cleveland, Buffalo, and other cities on the lakes have created for themselves great and extensive harbors for lake shipping on a grand scale, and are planning greater harbors.¹

In our progress through the grades a few of these large cities, such as San Francisco, Chicago, New York, New Orleans, will be treated as complete teaching units (big units). With a treatment of each later city comes the opportunity for a thoughtful comparison with each of those previously studied.

By means of these comparisons we get a complete and interesting review and a strong organization of the whole developing body of knowledge. These are not formal, static, memoriter reviews, but a thoughtful, discriminating survey, a weighing out of relative values,

¹ At Cleveland the harbor builders are just now recommending an expenditure of \$7,000,000 for deepening and straightening a part of the river.

a discovery of interesting contrasts and similarities, a genuine understanding of important cities and traffic routes in their present setting, in their past growth, and future possibilities.

Our organizing idea has thus grown to national proportions, and yet this is only the beginning of its growth.

The geographies usually give these coastal and lake cities in several lists, unrelated to one another, and stripped largely of distinctive and significant features.

For example, the Atlantic coastal cities are named in two or three separate groups, as (1) Boston, Portland, Providence, and Fall River; (2) New York, Philadelphia, and Baltimore; (3) with the treatment of South Atlantic States, Norfolk, Wilmington, Charleston; (4) Savannah and Jacksonville are named as important sea-ports, and still later (5) the Gulf cities, Pensacola, Mobile, New Orleans, and Galveston. The large lake cities form a group by themselves and are not related to the others.

In a later grade, where we come to a study of a few big central European cities, the ideas involved in our study thus far of American cities will spring into a new illumination. Liverpool has built up vast harbor improvements, in spite of a tidal shift of 32 feet each 12 hours. Hundreds of acres of artificial harbors have been dredged out deep enough for ocean vessels.

Manchester spent \$85,000,000 on her ship canal to bring ocean vessels inland 34 miles to the great cotton market.

Glasgow spent \$100,000,000 during the lapse of a century in deepening the little River Clyde and much more in building up later along this artificial stream the greatest shipbuilding center the world has seen.

Havre, Antwerp, Hamburg, Marseille, and Naples present new problems on the same developing line of thought, mainly vast harbor improvements.

Paris, Berlin, and Vienna are all inland cities, not ocean ports. How comes it that they have grown into such world importance without close contact with the sea? Notice the contrast! In our own country we have few great cities not located on tidewater or on the Great Lakes. Why?

In Asia, Africa, and South America we find important harbor cities: Calcutta, Canton, Melbourne, Alexandria, Rio Janeiro, which we shall continue to interpret and measure upon the standards developed in all our previous studies.

What is the outcome?

An intelligent, growing interest in the present problems and future growth of our own coastal cities and in close comparison with foreign ports. All the later studies reflect back a new light upon the prob-

lems of our American seaports. In other words, we have a well-organized, naturally developing line of thought running like a broad highway through the course of study and projecting itself clearly into the city problems of the future. It is a thought movement that begins in life projects and ends in life situations.

In the growth of such a continuous line of thought based on a succession of big units of study, arranged like stepping stones through the grades, we find a second kind of organization which deals with the cross connections or correlations between the studies.

- A big topic freely elaborated keeps the teacher and children passing across the boundaries into other subjects. A big city finds it necessary to deal not only with important phases of geography, physiographic, commercial, and industrial, but it encroaches constantly on history, because it deals broadly with the growth and importance of harbor improvements in the past and looks well into the future. It would not be out of place to call the whole topic a historical topic, since it reviews the causes of the growth and improvement of cities in Europe and America for a century and more. The development of railroads and ship lines in recent times with relation to ports comes clearly into view. The Panama Canal project, upon which the San Francisco topic is partly based, is itself a great historical evolution.

Modern applied science plays widely into these big projects from an engineering point of view. The excavation and construction of great harbors, the machinery for handling goods on the docks, the applications of electricity, steam power, and hydraulics to harbor problems are many-sided. The mingling of native and foreign ideas in big seaports and their relations to foreign lands are wide reaching. The exchange of products and merchandise with foreign lands brings the children in contact with a great variety of the earth's fruits, forests, metals, and other products. Big civic ideas and interests find direct expression in these costly improvements; and government, in its powers of taxation, expenditure, etc., is fully tested.

Mathematics is in constant use in measuring relative values in cities, harbors, imports and exports, expenditures for improvements, etc. It furnishes the best use of statistical data. Supplementary reference books of history, geography, and science are fully used. Language lessons could not be based on better thought materials.

But underneath all this is the constant need for utilizing daily in class work all the local experience and knowledge concerning their own city, its harbor, etc., and environment that the children have gathered at home and in the school. The daily, perpetual falling back upon previous knowledge and incorporating it into the new topics is the strongest form of correlation and of organization. To reach back in every lesson to the home experiences and neighbor-

hood knowledge of boys and girls, and even to take excursions into this neighborhood to freshen and clear up these topics, gives a still more definite and vital growth in knowledge. To this end undoubtedly the teacher herself should make a purposeful study of all these home things and acquire as definite information as possible of the previous topics studied in earlier grades.

In conclusion it may be said that the purpose of good teaching, on the knowledge side, is to accumulate and organize information along the main highways of study, so that this knowledge will best function in a quick and clear interpretation of the many on-coming problems. Such vital organization would grow into a system of knowledge not easily forgettable, vital, and organic. A big topic like this, or series of closely related big topics, cuts a big swath through the whole elementary course of study and gives the child a practically valuable and usable kind of knowledge in the end. It is the basis of interpretation now and in the future as he looks out upon the world. It gives him positive help in the duties of a citizen.

What may be called the distinctly modern phases of education are relatively neglected in the course, such as the industrial and household arts, music and drawing, nature study and applied science, prevocational studies, and special provision for defective classes. Other large cities, like Indianapolis, Chicago, Pittsburgh, New York, and Boston, have taken up these modern problems in a serious and thoroughgoing fashion that makes San Francisco's efforts seem trivial. Cleveland, Chicago, and other cities have elaborate reports outlining these modern studies and discussing principles and methods.

To comprehend the real meaning and value of a course of study we must keep in mind its relation to several other things upon which the course is directly dependent: First, the textbooks used, which often mainly determine the course; second, the supplementary books and reference libraries, upon which the real execution of the course largely depends; third, the experience, equipment, and prevailing methods of the teachers; fourth, the adjustment to the local needs and peculiarities of the community. Unless the course of study is brought into close relation to these things, it will amount to very little.

Arithmetic.—The introduction to arithmetic in the course of study is a clearly defined statement of correct principles governing subject matter and method in teaching arithmetic. In the actual teaching observed in the schools, the course in arithmetic is as well carried out as is the course in any of the studies. The work in primary grades is systematic, and the devices for illustrating and concretizing the number exercises are good. The card drills in the hands of the children are also, as a rule, well carried out. The board work

and seat work of the children in intermediate grades is usually well-planned and put on in good form. The standard units of measurement, such as quart, foot, pound, etc., could be used more extensively as a means of concretizing number concepts. Incidental number work in primary grades, as related to other studies and school activities and to games, does not seem to find a place in this course.

The course of study covers the usual topics and follows a given textbook adopted by the State. Great emphasis is laid, in the grammar grades, upon a careful formal review at the beginning of each half year. Not much stress is put upon the thoughtful, independent work of solving problems, and of applying arithmetical processes to subjects which come up in other studies.

The general plan outlined in this course would secure a good mastery of the facts and processes of arithmetic, but would not develop strong thought power in dealing with new problems and new situations. Possibly the metric system occupies relatively too important a place in grammar grades. As compared with other cities in the United States this course in arithmetic may be called a standard course.

Geography.—The course in geography is somewhat elaborately planned and has excellent features. The home geography for early grades is properly emphasized, and following that, the plan provides for the study of the physical features, climate, and products of the State of California.

In very few of the schools did we find this plan of home geography fully worked out. In certain of the schools the State geography of California was well developed and illustrated with sand maps, product maps, and descriptive materials, pictures, etc. The plan of using product maps in the upper grades, showing on outline maps the distribution of products by different colored crayons, an excellent plan, we found in use in only a few schools, although specifically called for by the course of study.

The plan presented in this course offers a combination of textbook studies with assignments from supplementary readers. These lessons are further strengthened by map studies and by the so-called "cumulative reviews."

The cumulative reviews are strongly emphasized in the course of study. They occupy several weeks at the beginning of each term and are designed to repeat and reiterate the essential facts till they are thoroughly fixed in mind. In practice, such reviews often degenerate into routine drills, which are lifeless. In fact, the outline of leading facts given in the course of study for the upper grades recommends such almost pure memory drills. Example: Lists of mountains in Asia for cumulative review—Caucasus, Himalaya, Kinghan, Hindu Kush, Altai, Sinai, Ararat, Everest.

In the later grades the course outlined gives an undue emphasis to the bare names and locations of places in geography. This in connection with the cumulative reviews overemphasizes the formal side of the study. The big important topics in geography should serve more as centers of organization, and the facts should be grouped around these centers. The improved course of study in other cities calls for a more careful selection and fuller treatment of large topics and a curtailment of mere facts and locations of places.

The close relation between history and geography is scarcely referred to, another illustration of the isolation of studies which should be kept in close and constant relation. The course of study should do more than merely mention correlation as a principle. It should group the topics in any grade so as to contribute directly to a closer connection. When properly provided for in the course, the interconnections between the different studies are very numerous and profitable and teach the children how to connect and organize their thoughts in a more rational manner.

Reading and literature.—In the course of study the general introduction to "reading and literature" is a first-class statement of the purpose and plan of teaching these subjects above the primary grades. We hardly see how this introductory statement could be improved upon in the space given to it. We may add also that we saw in some of the primary grades good teaching and in grammar grades some excellent work in reading.

The effort of the course to subordinate the formal side of reading to interesting content and to make literature primarily a cultural and moral influence appealing to the higher sentiments and aesthetic tastes is well conceived.

To put this choice material into the course of study is one thing, but to make this sort of teaching of literature a reality, with a large corps of teachers like that of San Francisco, is another and very difficult thing. It requires unity and harmony of effort by the whole teaching force, including deputy superintendents, principals, special supervisors, and particularly the superintendent of the city schools. A large portion of the reading exercises at present is rather perfunctory and dull. For collateral readings a much larger equipment of well-selected libraries is indispensable. In this respect the course of study in San Francisco is too much a thing on paper only.

The introductory statements bearing upon the proper use of literary classics in the grammar grades are excellent and set up a high standard. The selection of pieces for memorizing throughout the grades is admirable and should be enlarged by an introduction of more prose passages.

In connection with literature the San Francisco course is guilty of one striking omission—the regular and systematic use of story telling in the three primary grades. No such list of choice stories is given, and the fundamental importance of good story telling by the teacher and of oral reproduction by the children as a basis for language training is overlooked.

This oral story work is one of the most striking improvements in modern education and is commonly recognized in the courses of study in our larger and smaller cities and in our educational literature generally. The failure to give an important place to story telling in primary grades as an introduction to literature and as a means of bringing joy and life into primary schools marks the San Francisco schools as old-fashioned and decidedly behind the times.

In connection with literature and reading through all the grades, the course of study should make ample provision for dramatization in its various forms and a broader and richer use of the language in oral composition. A failure to develop the dramatic activities of children seems to us a marked defect of the San Francisco schools. Even those schools which have good facilities in the form of assembly halls seemed to make little use of them for this purpose.

Language, composition, and grammar.—The course of study as outlined for language and composition is well planned for intermediate and grammar grades and is somewhat systematically carried out in the actual programs of the schools. The demand for interesting and suitable thought material from story, history, geography, and nature study as stated in the course of study is a fundamental need. The keeping of a neat composition book or folder in which a few compositions carefully worked out are regularly inscribed is a standard requirement, but easily drops into formalism.

The course of study in language and composition gives excellent suggestions touching the main difficulties in making improvements in language. First is the correction of common mistakes in oral speech by watchful and kindly criticism. A definite list of the more common mistakes for each grade would give greater precision to this work. Second the choice of topics for composition and instructions as to outlines, correct sentence structure, punctuation, etc., are well treated. The importance of imitating good models as observed and studied in standard authors could be still more emphasized.

The general statements relative to the value of grammar and method of teaching it are clear and practical. In spite of these excellent recommendations technical grammar as outlined in this course begins in the middle of the sixth grade and continues through the seventh and eighth grades. The consensus of opinion in our best city schools would delay the beginning of technical grammar

to the seventh grade, and many would confine it to the eighth grade or push it up into the high school. Many of our State courses of study, like that of Illinois, do nothing with technical grammar below the seventh grade.

History and civics.—The course of study in American history is well planned, with a proper regard to the choice of materials suitable to children in the successive grades. This course is supported by a full list of supplementary readers (although the actual supply of adequate books is not provided). The course of study also emphasizes the special ways of using these materials. For example, in intermediate grades the oral use of biographical stories is provided. In grammar grades a combination of textbooks and reference materials, with an emphasis upon the larger movements in history, is duly set forth and emphasized.

It is probable that the course of study outlined in history is too extensive and it could hardly be carried out successfully without infringing on the time that should be allotted to other studies, especially as civics is rather fully treated in the same connection.

As compared with the history course in other cities, the general plan is excellent. The main emphasis is placed on American history, while European history deals mainly with the biography of a few leading characters without any effort to trace the development of the larger movements of Europe.

This course of study could be still further reduced and simplified by omitting a considerable number of the less important topics, thus providing for a fuller and more descriptive treatment of the more important ones.

The close relation between history and geography is but slightly touched upon. A proper correlation between history and geography would lead to a marked economy of time and a much better understanding of both subjects. Such a close correlation between history and geography is now recommended in many courses of study.

The work of civics is provided for in the course of study, first, as a part of the history, and secondly, as a substitute for history in the last half of the eighth grade.

There is always danger, in teaching civics in a separate textbook, of making the treatment abstract and general rather than special and concrete. The exploiting of important topics in geography and history in the interest of civics training seems to us a more practical and effective plan for teaching civics. In any case topics in civics need to be abundantly illustrated in the concrete.

The study of local government in its concrete phases is perhaps the best means of saving this subject from meaningless abstraction. The curriculum of the Horace Mann School, in New York City,

introduces a full study of the City of New York as a means of concrete illustration for civics, geography, etc.¹

Nature study and elementary science.—The nature study course as outlined in the 1911 course of study does not amount to much. It urges strongly the "naturalizing" of the other studies by providing a more realistic treatment of all studies. This is well in itself, but does not provide a nature-study course. The supplementary course of 1915 tries to make good this deficiency by outlining a course based on the Murché Science Readers to be used rather freely by the teachers. Under the circumstances it is probably well to have such an outline. But the assignment of a set of science readers as the basis of the course can not be regarded as any adequate solution of the problem of science in the grades. A bookish approach to science is wrong. This problem will have to be taken up more seriously and a real nature-study course provided, based on a first-hand contact with and study of soils, climates, trees and other plants, birds and animals, and outdoor nature and its forces and phenomena. A more definite outline of topics in applied science also should be provided for the upper grades.

The outline of lessons for physiology and hygiene, which is closely related to the science course, is well based on the idea of the practical value of such study. It should be a means of promoting personal health, and also social and municipal sanitation. The lessons suggested are good, but the whole series of important topics should be more carefully worked out. The books named for study and reference are also practical and well chosen.

City courses of study over the country show a wide variation in selecting topics for elementary science. There is at present a strong tendency to emphasize the school and home garden and simple forms of agriculture.

Spelling and penmanship.—The remarks on spelling are prudent and the plan outlined is, on the whole, practical. There is probably an overemphasis of the use of the spelling book, and the work is based on the regular use of the speller from the second grade on. The words coming up in the reading, language, and other studies should form a part of the regular spelling exercises, and the application of spelling to these studies is of equal importance. The correlation of studies in this course is, in theory at least, well provided for.

The course in penmanship holds too closely to static chart forms and copy-book models. The free-arm movement developed properly can dispense with the copy book. But it requires well-trained teachers who have themselves passed through the drill.

Music.—The subject of music in the elementary and high schools of San Francisco is discussed extensively in Chapter X.

¹ See Ch. IX of this report.

Supplementary materials.—The great insufficiency of supplementary materials of all sorts was to the survey committee a striking characteristic of the San Francisco schools. A full list of all the supplementary books and libraries at hand in 12 representative grammar schools and elementary schools of San Francisco was furnished by the principals of these schools at the suggestion of one of the officials.

The Jean Parker School is the best supplied of these 12. Its list of supplementary materials for geography runs as follows:

	Copies		Copies
California: The Golden State	19	Our Modern Europe	3
How We Are Fed	17	Winslow's Earth and its People	9
How We Are Clothed	9	Winslow's	
Carpenter's		Europe	8
Africa	3	United States	9
Asia	3	Distant Countries	8
Australia	3	Our American Neighbors	9
Europe	4		
South America	5	Total supplementary books in	
North America	4	geography	113

This gives for the use of about 400 children (fifth to eighth grade, inclusive) 113 volumes.

If the plans outlined in the course of study are to be carried out, five times as many supplementary books will be needed. Ten times as many would not be excessive.

This school, like the others, is supplied with regular sets of readers from the first to the fifth grades. In addition to the supplementary readers in geography, history, and nature study, the Jean Parker School has a general library of 211 volumes; also reference books (dictionaries and encyclopedias).

A general library of 211 volumes, even if well selected, is very small for a school of 775 children. A well-selected library of 1,200 books would be of genuine value to both teachers and children in carrying on the studies of such a school. The other 11 schools which reported their full list of books are not so well supplied as the Jean Parker School. The Hearst School, for example, with 671 children of all grades, reports only 60 volumes of supplementary books in geography, and a general library of 400 books (names of books not given).

The Jefferson School, with eight classes of children of all grades, has no geographical readers, and a general library of only 150 books. In spite of this handicap, the Jefferson School, by reason of the energy and spirit of its principal and teachers, was working well. Help and equipment are needed.

None of these schools are properly supplied with supplementary readers and other library facilities. Teachers and schools can not do effective work under these conditions. A liberal allowance of money

for supplying needed reference books and libraries throughout the entire system of schools is strongly urged.

The following tabulated list gives the number of books reported for each of these 12 schools:

Number of books in schools.

Schools and classes.	Readers.		History, volumes.	Geography, volumes.	Science, volumes.	General reference		Volumes in library.
	Sets.	Volumes.				Dictionaries.	Cyclopedias.	
Jean Parker, 17 classes.....	26	552	239	113	33	6	164	211
Hearst, 16 classes.....	35	748	323	60	30	3	3	400
Emerson, 14 classes, 5 grades.....	33	877	54	30		1		463
Jefferson, 8 classes, all grades.....	24	447	60			1		150
Franklin, 17 classes.....	38	840	175	65	20	2		218
Henry Durant, 17 classes.....	36	802	49	42		7	9	200
Bryant, 15 classes.....	36	793	140	51	42	6	1	709
Glen Park, 18 classes.....	32	624	80	90		22	22	310
Mission Grammar, 16 classes.....			215	138	34	17	21	320
Washington, 18 classes.....	11	236	100	20		8	21	125
John Swett, 19 classes.....	32	705	243	108		15	29	168
Columbia Cosmopolitan Grammar, all grades.....	15	328	287	55	43	4	62	

1 Also 1 atlas.

The movement toward the establishment of an educational museum should be encouraged, necessary supplies of all kinds, such as lanterns, pictures, phonographic records, gymnasium apparatus, globes, maps, etc., should be supplied much more liberally to all the schools, and a fuller, more effective cooperation between the schools and the public libraries should be established. The capacity of the public libraries for service to the schools will soon be very greatly increased and should be utilized to the fullest possible extent. The library officials manifested eagerness to cooperate with the schools.

In Boston, St. Louis, Chicago, and other cities well-formulated plans have been carried out to supply the schools with pictures and other illustrative materials, and even with lanterns, lantern slides, and moving pictures. School museums of natural history, geography, and other subjects are not only opened for class excursions, but for the distribution of illustrative specimens to the schools.

The teachers of San Francisco made a notable beginning toward the establishment of a school museum when they gathered together a collection of materials at the close of the recent Panama Exposition, derived from the various departments of that great exhibit. But these collections need to be put to the direct service of the schools.

The following quotation from the annual report of the superintendent of the Boston schools (1913) applies to the school course of San Francisco and of many other cities:

A course of study should be open to yearly revision, and occasionally, as often as once every five years, it should be given a critical revision in detail. The revision should be frequent, both to keep the course abreast of current educational thought.

and to revitalize the teaching. A course of study that becomes static loses step with life. It trains children in the traditions of subjects instead of exercising them in those aspects of subjects that are of importance in the world of to-day and to-morrow. It accumulates archaic material and loses sight of the purpose of education to enable the pupil to get experience in real situations and to learn to adjust himself to conditions around him. It becomes abstract and remote from the life of the child, instead of seeking to develop an interest in current civic activities, and through these dominating interests to give him training in life and for life.

Discipline and instruction.—In general our observations discovered to us a wholesome and hearty spirit in the school life. Between teachers and children there was good will and cooperation. The boys and girls were happy, and very little scolding or nagging was seen. The severity and harshness of the old-fashioned school have disappeared, and there is a genuine social life. At the same time there was orderliness and prompt obedience to required standards and full recognition of authority and a quiet polite behavior resting on mutual respect.

The relations also between principals and teachers as shown in the school buildings and in social meetings at noon were cordial and displayed a fine spirit of harmony and cooperation.

The children showed a healthy, hearty physical aspect, due perhaps to the fact that they live so much out of doors. While the general temperature of the rooms (during February) was often not above 65° F., both children and teachers seemed to enjoy the freshness and to suffer no inconvenience. The massed exercises given to the whole school in the open air under the leadership of the principal or of the physical director offers an inspiring spectacle and an exhilarating physical training. These superior outdoor exercises were observed under the direction of the principal in the Hancock School, also in the Bryant Cosmopolitan School, under the direction of the supervisor of physical training, and in a few other schools.

In several respects the prevailing methods of instruction do not come up to the standards set forth in the course of study. The course of study itself and later circulars of instruction sent out by the department of superintendence set up high standards along definite lines. The question is not whether they have fully reached these ideals, but whether the teachers and superintendents are working definitely, consciously, and steadily toward them.

The general average of practice in the schools aims at a formal proficiency in reading, arithmetic, language, and writing, and at the acquisition of a definite quantity of information in geography and history, as outlined in the course. Teachers in many cases carry out this plan reasonably well, and are satisfied with the results. Long experience has given them clearness and definiteness as to the results desired and a regular plan of work for securing these results. Evidently the teachers have much confidence in what they are doing,

but their standards are not high enough nor broad enough. The standards set up are formal and commonplace rather than dynamic and progressive. They are not strongly cultural. The schools of San Francisco have not developed strongly along what may be called modern lines. The emphasis is still mainly given to reading, writing, arithmetic, and language, and to the mastery of the formal arts connected with these subjects. As a consequence the methods of study and teaching which have been developed elsewhere in connection with the newer subjects in the curriculum have been relatively neglected.

The tendencies toward too much formalism are illustrated in the following points:

1. In teaching writing the static chart forms (hung upon the walls for guidance and imitation) are still largely adhered to as a basis, while the more recent development of writing on the basis of free-arm movement is introduced in only a few schools. These few cases demonstrate how the writing should be developed under strong and effective supervision. In the Madison School the free-arm movement was carried out with excellent success in the departmental work of the upper grades. The same excellence was noticed in the writing exercises of the Hancock School under a specially expert teacher of writing.
2. The excessive use of phonograms in primary reading as a drill on meaningless forms has become a routine habit with many teachers. A simple phonetic device has been carried to an extreme and has become the basis of a method in primary reading. In one room were counted 180 of these separate phonograms arranged on the upper blackboard. They were being successively drilled upon. These long lists of phonograms to be drilled upon are very common. This was a noticeable feature in a large number of schools.
3. In the reading lessons of intermediate and grammar grades there was a great deal of old-fashioned, monotonous reading, pronouncing words with little thought or expression. It is mere reading on and on, repeating words without setting up higher standards of expression, with but little dramatic interest or stimulus. There were exceptions where lively thinking and strong expression were clearly shown, but in the main the reading was somewhat lifeless. There was necessity for greater variety and originality in method of getting at and expressing thought. Problems should be set up, discussions started, parts dramatized, and other reading matter drawn in. Both teachers and children stick too close to the book. Some notable exceptions to this rule of monotony may be named, as, for example, a first-grade room in the Monroe School where a beautiful spirit prevailed, and efficient reading. An eighth-grade class reading *Evangeline* in the Jean Parker School was doing very superior work.

The lack of dictionaries in many schools hinders a proper training in word study.

4. Technical grammar, as in all schools, has a tendency to become dry and theoretical. Even in fifth and sixth grades there was drill on the definitions of the parts of speech, although this is not the intent of the course of study. It requires lively teaching to keep the language work out of formal ruts. Formal grammar should not be attempted in the fifth grade.

5. The geography lessons showed an unmistakable tendency toward map questions and the ordinary drill on names and locations. This tendency is emphasized by the "cumulative reviews," which, even in the course of study, are tabulated as mere lists of names. The geography lessons were of the condensed textbook order. The history tends to run into a similar mold of brief summary statements and memorizing of leading facts, with frequent repetitions and drills. In a fifth-grade geography class the children memorized a bare list of names and locations. In a fourth grade a list of cities, products, and mountains was named and repeated. This kind of drill was often carried too far.

In these various ways the general tendency of the teaching to drop into formal lines and into narrow methods of drill work is manifest.

On the other hand, the schools of San Francisco, generally speaking, have not been progressive and diversified in concrete modes of instruction, in the use of graphic and lively methods and materials for illustrating topics. They have not taken up sufficiently into the treatment of studies, the great enrichment of interesting thought materials which is one of the most striking features of our modern education. This failure to appreciate and make use of the enriching elements of study is shown in several ways, as follows:

1. There is a meager use of skillful story telling in the primary grades. The graphic presentation of good stories by the teacher and the reproduction of them by the children exercise a most stimulating, healthy, and practical influence in primary work. Dramatization is also important. The child learns much from both the conscious and the unconscious imitation of the language of others, but he does so chiefly because he appreciates what they say and he desires to express it himself. This he does in the case of story telling only when the story really interests him. He also has experiences and originates thoughts of his own which he desires to express so that he will be understood and appreciated by others, and this kind of language teaching is of great importance, since it encourages originality in thought as well as in expression. School children get too much into the habit of expressing merely the thoughts of others. Dramatization that furnishes a real dramatic situation, supplies the materials necessary to work it out, and encourages the children to find ways and means of expressing their own notions of what should be done, is one

of the best means of language instruction, but one which is too often neglected.

2. The oral presentation and discussion of topics in geography, history, and nature study in intermediate grades afford opportunity for the best kind of skill and influence in these grades. Skillful oral, concrete teaching of this sort is not made a feature of the San Francisco schools.

3. Teachers use the blackboard very little for illustrative sketching, for rapid drawings and diagrams, and for various modes of graphic representation. Where teachers fail to do this, they fail, of course, in cultivating the same habit in children. And yet, one of our best established theories in education is that children should be encouraged and developed in all modes of expressing their ideas, in drawing, constructing, and acting out their thoughts. Teachers should cultivate freedom, flexibility, and ready skill in all modes of motor expression. In the actual classroom teaching we saw very little of this. It is a striking weakness.

In the Jefferson and a few other schools were found a good molded map of California and excellent local maps drawn by the children on the board.

The regular drawing lessons, which should make teachers and pupils facile in the use of chalk or pencil in the varied graphic modes of expression, seem to fail of their proper result. They do not carry over into other studies. In other words, the drawing lessons do not function in the other studies. Many other schools besides those of San Francisco show the same weakness; that is, the failure to bring practical results. But San Francisco schools are particularly lacking in this practical correlation of studies.

In a few cases children were seen sketching freely at the board, but this was exceptional.

4. Home geography, although emphasized in the course of study, is poorly represented in the actual teaching. Excursions are very unusual. San Francisco is marvelously rich in local scenery, in varied commercial and industrial activities, and in striking objects interesting in themselves, and suggestive of foreign countries and of far-reaching relations to the outside world. No general use is made of this remarkably rich and varied local material. Teachers were holding to the usual routine of book work as if they were living in the flat prairies of Illinois. The magnificent harbor, girt in with mountains, the docks piled with foreign goods, the great ships at anchor in the bay or alongside the wharfs, the variety of ocean-going ships, sailing vessels, steamers, and battleships, the forts and batteries guarding the entrance to the harbor, the ocean itself, and sea beaches, the islands, the crowded ferries and ferry station, the foreign populations with their peculiar dress and modes of living, the fac-

ories and shops, the parks and buildings of San Francisco, all these and other striking objects of interest furnish an almost unequaled richness of geographical local material. But the schools, as such, scarcely notice these things. On mention of this matter to several of the teachers, they seemed astonished at the richness of local material they had overlooked.

During the present year a well-organized plan was carried out for class visits to the Panama Exposition, including definite surveys of the buildings and a study of the main exhibits. This was an admirable use of a fine opportunity. But San Francisco itself, with its harbor, with its parks and public buildings, its shipyards, ferries, terminal stations, factories, and truck gardens, with its mountain scenery and ocean views, is a daily and permanent exposition to be observed and used in many ways.

5. Classroom instruction is too closely limited to textbook matter. The textbooks are entirely too meager to offer a satisfactory mental diet for children. The richness of thought that has come into modern studies is not found in textbooks but in local objects, in supplementary readers, in larger books of history, in narratives of biography and travel, in fiction and stories, in invention and science. Holding rather closely to dry and dull textbook material, teaching, as a whole, lacks richness and spirit. Teachers somehow do not feel the necessity for getting out into the world of real life, of struggle and conflict and romance, and of awakening the children to a stronger and keener mental life. The lack of library equipment emphasises this narrow and meager sort of instruction.

In a fourth-grade class in geography, the teacher held strictly to the book questions. In a seventh-grade class the whole class recited the definitions in grammar in concert in a formal manner. In a fourth-grade geography class there were drills on names, but no thought questions.

The schools studied in San Francisco do not reflect enough of life. The teachers fail to bring into their instruction the full flavor and relish of experience. Strong, active leaders are needed to turn the children into libraries, into shops and gardens, and into home and world activities.

In a few cases we found the National Geographical Magazine and other similar fine illustrative material in use. Such material should be made a decisive feature of history and geography. San Francisco, so far as the schools are concerned, is unusually poverty stricken in these essential particulars. The schools and teachers are suffering from a dearth of thought materials. Schools can never be of a high grade with such meager outfit of study materials. The best teachers in the world would be seriously handicapped by such conditions.

On the other hand, the school studies do not call forth in children sufficiently strong effort. In some cases the tasks are made too easy. In reading lessons, children in all grades should learn to pronounce new words for themselves. They should become self-reliant in interpreting new difficulties. They need constant help, but they should be frequently thrown back upon their own resources. In one seventh-grade class the teacher pronounced the new and difficult words for the children without requiring them first to make an effort to pronounce them for themselves.

The work in grammar grades especially is too easy. Teachers interpret and explain to such an extent that boys and girls do not develop self-reliance and willingness to meet and overcome difficulties. Children at this age should encounter real thought problems and struggle with them without the intrusive help of the teacher. A science lesson on levers in a seventh grade was elaborately explained where no explanation was needed. In arithmetic, grammar, history, and literature children should become self-reliant thinkers. There were some fine exceptions, showing strong masterly teaching and vigorous independent thinking, but in general difficult problems were too much predigested.

Possibly the introduction of more men into the teaching force as principals would lead to more rigid standards of thinking and to severer requirements. In any case more mental stamina should be developed in grammar-school pupils.

The growth of this independent thinking power in children calls for a high order of skill in teaching and for strong character in teachers. With a fully developed course of study, strong supervision, and schools well equipped with libraries and apparatus, there is no reason why a force of experienced teachers like those of San Francisco should fail to satisfy these superior standards.

Departmental teaching.—In a few grammar schools departmental teaching has been developing vigorously and with good results. It is a phase of specialization in teaching which deserves to be fully tried out. In some of the schools where departmental instruction was being tried the work seemed scattering and superficial.

A more systematic plan for developing and organizing departmental teaching, encouraged by the superintendent and directed by strong progressive principals, is needed. The value of such instruction should be tested out under better auspices, with close supervision, with a full equipment of libraries, reference books, and maps. Departmental teaching offers a chance for intensive work in organizing and enriching school studies, and it may well improve and advance methods of teaching throughout the whole system. The teachers and principals of the San Francisco schools deserve to be encouraged and supported in such efforts to improve instruction. In every

department of the school system, every phase of work, specialized skill and efficiency should be recognized and rewarded. At present there is little of such encouragement.

*Supervision.*¹—(1) *General.*—There are at present five deputy superintendents, only four of whom do any supervisory work. The city is divided into four districts, and each deputy is in charge of one of these districts, whose schools he visits on an average once in five or six weeks. It is decided by lot at the beginning of each term which of the four districts each deputy is to supervise. Changes, therefore, may and usually do occur every term. It is evident that under such a plan no consistent policy of supervision can be worked out, followed up from term to term, and the results definitely determined. In fact there appears to be no well-defined policy of supervision, no aim clearly conceived and consistently worked out. Consequently, when asked what real professional help and stimulation they received from the superintendents in charge of their work, principals frequently replied, "Very little" and some said, "None whatever." This condition is partly to be accounted for by the fact that the deputy superintendent feels that he has in reality very little authority. Under the charter, the superintendent is elected by vote of the people and is empowered to select and appoint his deputies regardless of the approval or disapproval of the board of education.

The members of the board of education are appointed by the mayor for a term of four years and the board has full authority to appoint the principals of the schools without regard to the recommendations of the superintendent, and this we were told is not infrequently done. Consequently, the school principal stands a little nearer to the real seat of authority in San Francisco schools than does the deputy superintendent and may, if he chooses to do so, ignore the latter's recommendations or follow them only just so far as he pleases. Moreover, the charter provides that no one can be appointed deputy superintendent who has not resided in San Francisco five years immediately preceding his appointment, making it impossible for the superintendent to go beyond the city for the best available men in the country for this position. Here one meets with a fact that impressed the surveyor again and again—that the San Francisco public-school system is not planned nor is it operated primarily for the good of the children who need to be educated, but rather for San Franciscans who need positions. For instance, a married woman otherwise properly qualified can not now be appointed to a position in the schools unless she can show that her

¹Supervision is discussed at length in Chapter III. The briefer discussion here has special reference to supervision as it affects the elementary schools, and serves to show to what extent the members of the survey committee assigned to the study of the elementary schools realize the inadequacy of supervision in these schools.

husband is unable to support her. If she can show this, she may be appointed. Whether she may or may not be appointed is not, therefore, determined by her ability to teach little children, but by a condition which has nothing to do with such ability.

(2) *Principals.*—In charge of the elementary schools there are in all 73 women and 10 men. Three of the men are principals of the intermediate schools and 2 are in charge of 1-room schools having fewer than 20 children. The male principals are 12 per cent of the whole group and are in charge of 12½ per cent of all the pupils in the elementary schools. Their average salary is \$2,008 and their average length of service in the San Francisco schools is 37.6 years. With one exception none of them entered the service of the schools within the last quarter of a century, and with four exceptions all of them began work either as teachers or principals in San Francisco more than 40 years ago. Eleven other men are now employed as teachers in the elementary schools, 7 of whom are teaching manual training in the intermediate schools. Of the remaining 4, only 2 hold high-school certificates. If the present policy of the school board to appoint all elementary principals from the corps of elementary teachers is to be continued, it will evidently not be many years until all the elementary principals will be women.

Of the women principals no one has entered the service within the last 10 years, 11 were taken into the system between 10 and 20 years ago, and 16 between 20 and 30 years ago. One has served the schools for 53 years and 15 between 40 and 50 years. Their average period of service is 32 years, and their average salary for 1914-15 was \$1,906.

There appears to be very little effective effort on the part of the higher school officials to stimulate the professional growth of the principals or to increase their practical efficiency in the supervision and management of their schools. They are not urged or even encouraged to study the work of other schools either within the city or outside of it, or to attempt to gain a better understanding of the actual social and industrial conditions of the city and the important educational needs to which these conditions give rise.

Principals' meetings presided over by a deputy superintendent are held once a month, but these meetings are not regarded by many of the principals as having much professional value. The past year the following were among the subjects discussed at these meetings: "The new law," "Visits to the fair," "Making registers," "Lists of defective children," "Supplies," "Adjustment of desks," "Number cards," "Music charts," "Vaccination certificates," "Record cards," "Defective vision," "The content side of reading." These topics are all more or less important, but they deal chiefly with routine matters and administrative details that might have been equally well handled

by official bulletins issued from the superintendent's office as occasion required, thus reserving the principals' meetings for the vigorous study and discussion of the larger, more vital, problems of expert school supervision in the present meaning of that term. On account of the absence of vigorous coordinating leadership exerted by the central office, every school principal in San Francisco is practically a law unto himself. If a principal is too old or too well satisfied with matters as they are to think out or venture upon anything new for the improvement of his school, one is certain to find him putting into operation practices and ideas that have long been discarded elsewhere as being out of harmony with modern educational theory. On the other hand, where there is a principal of vigorous mind, stimulating personality, optimistic in temper, deeply interested in his work, and an independent student of education, one finds a splendid school reflecting this spirit and influence of the principal in every aspect of the work. We found some such principals in San Francisco in charge of schools that would, if they were fully provided with supplementary and other materials needed for instruction, take very high rank in any city.

(3) *Special supervisors.*—The great outstanding need of the San Francisco schools everywhere apparent is that of expert professional leadership, of stimulating and constructive supervision. There is no authoritative head of the system having the final responsibility for the work in instruction and given liberty and opportunity commensurate with this responsibility. The board of education itself too often assumes burdens which should belong to the superintendent.

The school system is also weak in special supervision. Special supervision is provided for music, art, manual training, home economics, physical education, and for the primary grades. The number of supervisors in each case is wholly inadequate for the work they are supposed to do, and there are other subjects needing supervision for which none is now supplied. The need of expert supervision in the special subjects mentioned is especially great in San Francisco for two reasons: First, the present method of selecting new teachers for the elementary schools does not guarantee that those who are chosen will have had sufficient professional training in these subjects to teach them; second, no provision is now made for the training of teachers in these subjects after they are appointed and while they are in the service of the schools. The system now provides one supervisor each for the manual training, home economics, physical culture, and the primary grades; four for drawing; and three for music. In music and drawing, for which the greatest amount of supervision is provided, there is one supervisor to every 15,000 children in the former and one to every 11,000 in the latter. The supervisor's visits, therefore, are of necessity very infrequent to any school, and

there are some schools, for example the Jean Parker, to which the drawing supervisors are not permitted to go at all. Assuming that the board has been fortunate in every case in its choice of the present supervisors, it is evident that work of excellent quality can not be done unless the supervisors confine their efforts to a small number of schools.

SELECTION, IMPROVEMENT, PROMOTION, AND TENURE OF TEACHERS.¹

All new teachers of the elementary schools are now selected by competitive examination, which is both oral and written, and requires that the applicant should be a graduate from a State normal school or have been in attendance as a regular student for two years in an institution of collegiate grade or have had two years of actual teaching experience subsequent to graduating from an institution of high-school grade. The applicant who is successful in the written examination must make a grade of at least 75 per cent in each of the following subjects: Arithmetic, American history (including American institutions and current events), general science, personal and public hygiene, and methods of teaching and school management.

There is no formal examination in English or in any other subject contained in the elementary course of study. The oral examination is conducted by the board of education and is designed chiefly to test the applicant's personality and general intelligence. Applicants receiving a grade of less than 75 from three members of the board are rejected, regardless of the averages made by them in the written or in the oral examination. The successful applicants are listed in the order of their averages in the written and oral examinations, and all assignments to teaching positions are made by unanimous vote of the board of education from the three highest on the list at the time the choice is made. All applicants thus listed must serve during a probationary period of at least two years before they can be appointed as regular teachers. Finally, appointments are made by the board of education upon the recommendation of the superintendent and are practically for life.

This plan is an excellent one in many respects, but is weak in others. Under the present charter it makes possible political manipulation in the manner of conducting the oral examination and in the final appointment of teachers. It also fails to determine the teacher's fitness to teach such subjects as drawing, physical training, music, etc. It seems to be operated honestly and justly by the present board of education and to be securing in general a competent corps of teachers. The majority of those recently appointed appear to be intelligent, capable, and professionally well trained.

¹ Discussed here with special reference to their effect on the elementary schools. For administrative phases of these subjects see Ch. III.

In spite of the fact that the salaries paid to elementary teachers in San Francisco are relatively high, and that the appointment is practically for life, the ratio of desirable applicants at the competitive examinations to the number of new teachers needed is a decreasing one. From present indications it will not be long before this method of securing satisfactory teachers by going into the open market for them will prove inadequate and other means will have to be employed. Either the board of education will need to maintain its own training school for teachers or else a better adjustment between the San Francisco State Normal School and the public-school system than now prevails will have to be made.

The remarkable opportunity of the San Francisco State Normal School to render professional service of the highest order to the public schools of San Francisco, Oakland, Berkeley, and Alameda is at present almost wholly lost, for the lack of earnest cooperation between the management of the normal school and of the public-school systems of these cities. No State normal in the United States has a better opportunity, so far at least as location is concerned, to study and to influence profoundly modern city education than the San Francisco Normal, and yet we found there almost no disposition or desire to cooperate with the city school system in the training of teachers and in the solution of the many complex and difficult problems of modern city education. The Normal School makes very little use of the city schools for observation and practice teaching, and its extreme advocacy of individual instruction affords its students practically no opportunity to observe or to practice class teaching such as they will inevitably be called upon to do when they become teachers in the city public schools. There is in fact nowhere any systematic effort, by extension courses or other means, to promote the professional and cultural improvement of teachers while in the service. The absence of any such plan results in one of the greatest weaknesses of the San Francisco school system.

Teachers of the elementary schools are not distinguished by difference in rank. Promotions are made by an increase in salary which is accomplished by changing the grade in which the teacher is employed. Those to whom the highest salaries are paid are placed in the first, seventh, or eighth grade; teachers in the fifth and sixth grades are also paid slightly more than those in the second, third, and fourth. This arrangement is bad for two reasons. It provides the poorest instruction in the middle grades, where in all the schools there is the greatest amount of retardation and discouragement of pupils, and it tends in practice to place the smallest classes in charge of the best teachers. These evils, however, are not so great in San Francisco as they would be if more accurate means were used to determine the actual efficiency and merit of teachers. Impersonal

tests are seldom used to measure the efficiency of instruction. Principals are required to report twice a year on the efficiency of their teachers in instruction and discipline, but we found no clear and general understanding among them as to just what should be meant by the grades "excellent," "good," etc., applied in estimating these two aspects of the teacher's work. Moreover, the slight importance attached to the judgments of principals as to the actual merits of teachers is shown by the fact that these judgments are not recorded on the teacher's permanent card in the superintendent's office. The card contains a space for such record, but it is never transferred from the lists sent in by the principals. The special blanks used by the principals in recording their judgments are kept in packages and filed under the name of the school from which they come. Examination of one of these packages showed that all the teachers of that particular school had been marked from the first, and without exception, as excellent both in discipline and instruction. In justice to those teachers who by their zeal and actual efficiency deserve to be called excellent and as a means of encouraging excellence in others, a much more accurate method of determining the real merits of teachers ought to be worked out and put into effective operation.

As shown in Table 48, about one-third of the present corps of elementary teachers received their initial preparation for teaching in schools more than 30 years ago, when the great problems of city life and education were hardly thought of. Since there has been no stimulating effort to improve the teachers in the service except through the customary forms of supervision, which have been very inadequate, there must be many teachers on the pay roll who can not be called modern in their ideas and methods and who have long outlived their usefulness to the schools. Such teachers should be pensioned and retired from the service as soon as this can in justice be done.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

A. School organization.—1. The fundamental purpose and concern of the public schools is the education of the children. This must be recognized, practically as well as theoretically, and everything else must be subordinated to this end. The one problem of the board of education is to make every dollar of the people's money spent on the public schools accomplish as much as possible in this direction.

2. A careful study should be made of the actual results obtained in the various types of elementary schools now in operation in the city, to ascertain which type is the most efficient and economical and why.

3. Division of the city into elementary-school districts, and restricting the attendance of children to the school of the district in which they reside in so far as this can be done, is recommended.

4. Small schools are expensive and should be abandoned as rapidly as new buildings can be erected. The most efficient and economical schools are those enrolling from 800 to 1,000 pupils. As far as practicable it should be the policy of the board to provide schools of this size.

5. The proportion of men principals should be increased, and the present unwise policy of appointing all principals from the San Francisco corps of teachers should be abandoned. The aim should be to secure the strongest possible principals, both men and women, regardless of where they may be found. This applies also to the selection of deputy superintendents, directors, and supervisors, and other school officials. (See chapter on administration.)

6. Fuller provision should be made for supervisors of special departments and subjects. (See chapter on administration.)

7. More adequate provision should be made for the education of feeble-minded and backward children and other special classes.

B. Course of study.—8. The introductory statement of principles in the course of study should be revised in the interests of the newer aims of education.

9. A more complete up-to-date course of study, covering the modern as well as the older standard subjects, should be prepared and printed for the use of officers and teachers and the information of the public. The entire course needs to be revised and adjusted to modern life and community needs. It should cease to be formal and static and become dynamic and progressive. It should emphasize less the memorized forms of knowledge, and lay greater stress upon self-activity, initiative, and appreciation. A wiser allotment of time should be made among the general subjects, and the content of each subject should be apportioned to the several grades in accordance with the developing ability of the children.

10. In literature and language, story-telling and dramatization should be systematically developed.

11. The unusual advantages for the study of home geography in San Francisco and its environment should be fully utilized.

12. The cumulative reviews provided for in the course of study at the beginning of each half year should give way to a richer treatment of topics, to comparisons, and to reflective thinking.

13. As a support to the course of study the schools are in pressing need of far larger and richer libraries of reference and supplementary materials.

14. As a whole the school subjects should be closely correlated. The separate studies in fact should be less isolated. Viewed in its entirety, the course of study should reveal a strong continuity of thought running through the grades in the various school branches.

C. Discipline and instruction.—15. In primary grades the more lively and graphic forms of instruction, including drawing, story-telling, dramatization, and outdoor excursions, should be employed much more than they are.

16. In intermediate and grammar grades, on the basis of an enriched course of study, there should be more stimulating thought and less memoriter work. This need appears in the monotonous reading of the middle and upper grades, in the map questions and drills in history and geography, in the concert recital of grammar rules, and in the unreal nature study.

17. There should be a systematic development of free oral discussion in history, geography, nature study, and literature.

18. The free and constant use of the blackboard by teacher and pupils as a clear and graphic means of expression has been very much neglected and should receive positive encouragement.

19. Home geography, with excursions and later discussion of the same, should be made a very important means of enriching all studies.

20. School studies should everywhere reflect more of real life.

21. The meager outlines of textbooks should be greatly enriched by material from other sources.

22. More strenuous effort in solving problems and in self-reliant thinking should be required of grammar school children.

23. Departmental teaching should receive more of careful direction and encouragement. It should have better organized and richer subject matter.

24. More definite means for securing growth and improvement of teachers in classroom method should be provided by helpful criticism, by meetings for observing and discussing model lessons, and by opportunities of visiting and observing good teachers.

25. There should be a reduction of the size of many classes, so as to allow more individual instruction.

D. Supervision.—26. For proper direction and administration of the schools a new and more comprehensive determination of the policy of public education with reference to the aims to be realized, the place and function of the public school in the total education of the child, its relation to other educative agencies, and the proper methods of cooperating with them and its own proper work is needed, and a more vigorous, stimulating, and consistent up-to-date leadership in all departments of the work. This last is apparently the greatest need of the system.

27. Facts and results which should be known for the efficient administration of the schools should be kept and published in accordance with present usage in the best city school systems. The records found by the survey commission were extremely meager and of such a nature as to throw scarcely any light whatever upon the

most important problems of administration and supervision. There were, for instance, no records by which one could ascertain how well or how poorly the present course of study in its practical working throughout the grades is adjusted to the capacity and needs of the children. No records of the rate of progress through the grades, of the actual amount and location of acceleration, retardation, and elimination of pupils.

E. Selection, promotion, improvement, and tenure of teachers.—

28. There is need for a more satisfactory, just, and accurate method of determining the actual merit of teachers and for their promotion and retirement. (See chapter on administration.)

29. There is need for more effective measures for the improvement of teachers in service, such as extension courses, systematic stimulating supervision, leaves of absence for further professional education, organizations, and meetings for professional study and discussion. To this end the city should either maintain its own teacher's college or establish closer relations with the San Francisco State Normal School, University of California, and Leland Stanford University.

Chapter VII.

TESTS OF THE ACHIEVEMENTS OF PUPILS.

On Tuesday, February 29, 1916, in accordance with detailed instructions furnished to principals and teachers, certain tests were given to the pupils in the San Francisco public schools in penmanship, spelling, reading, and arithmetic.

Two classrooms of different grades in each of the 81 elementary schools were given a test in some one of the four branches, Table 113. The grades, classrooms, and tests were selected at random, and no principal or teacher knew in advance what test was to be given.

TABLE 113.—*Summary of schools and grades in which tests were given.*

	Number of rooms tested.	Penmanship.	Spelling.	Reading.	Arithmetic.
Number of schools tested.....		29	28	9	16
Number of rooms tested.....		57	55	18	32
Second grade.....	18	11	8		
Third grade.....	26	10	10	6	
Fourth grade.....	20	8	9	3	
Fifth grade.....	28	8	9	3	8
Sixth grade.....	24	7	7	2	8
Seventh grade.....	21	5	6	2	8
Eighth grade.....	24	8	6	2	8

¹ In one school two tests, penmanship and spelling, were given to the same grade.

In giving the tests the instructions to the principals were as follows:

The test is to be given in one room only in each grade indicated. If your school has more than one room in either of these grades, select the room taught by the teacher whose name appears first in order alphabetically.

If a room contains pupils of more than one year (as 4B and 5A together), the room is to be regarded as belonging to the higher year. If possible, select a room containing pupils of one year only in preference to one containing pupils of more than one year.

The test is to be given on the morning of the first school day following the date of the distribution of these papers. Please arrange to have it given immediately following the first regular recitation or study period in the morning program.

After the completion of the test the papers should be carefully preserved and carried to the principals' meeting, which will be announced later.

The purpose of giving these tests was to measure the achievements of the children in the San Francisco schools in those phases of school work in which objective measurements are possible as a

means of verifying and supplementing the observations of the survey commission with respect to the work done in the schools.

In the four subjects referred to, students of education have developed standardized tests and scales for measurement, and by using these it is possible to make comparisons of the achievements of the pupils in San Francisco with those in other cities.

It was impossible to test all of the pupils in the San Francisco schools, but a sufficiently large random selection of children was tested to make possible certain conclusions.

It is hoped also that principals and teachers will become sufficiently interested in the tests, their methods and results, to wish to make use of them themselves in further and more complete measurement of the achievements of the pupils under their charge.

RATING THE TEST PAPERS.

The tests were given in the San Francisco schools under the general direction of a member of the survey commission. The papers written by the pupils were examined and rated, the results analyzed, and the reports prepared by the departments of education in the institutions indicated in the following table:

Preparation of test papers.

Test papers in—	Report prepared by department of education in—	Under direction of—
Penmanship.....	University of Chicago, Chicago, Ill.....	Prof. Frank N. Freeman.
Spelling.....	University of Minnesota, Minneapolis, Minn.	Dean L. D. Coffman.
Reading.....	University of Illinois, Urbana, Ill.....	Prof. N. L. Garrison.
Arithmetic.....	Peabody College for Teachers, Nashville, Tenn.	Prof. Carter Alexander.

In preparing the reports of the tests, individual schools are referred to by number. The office of the superintendent of schools has been supplied with a key by which the schools may be identified.

PENMANSHIP.

In giving the penmanship test the instructions to the teachers were as follows:

At the beginning of the period assigned for this test, the selection below is to be copied on the blackboard where it can be seen easily by all the children in the room. It may be copied in more than one place if necessary.

See that each pupil is provided with a half sheet of the regular ruled foolscap writing paper. * * * Beginning on the third line, the selection is to be copied as written on the blackboard. Instruct the pupils to copy the stanza as carefully as they can.

Allow sufficient time for each child to do his (or her) best—one attempt, on one sheet of paper, only. Then collect the papers and deliver to the principal.

Land of the forest and the rock,
Of dark blue lake and mighty river,
Of mountains reared on high to mock
The storm's career and lightning's shock,
My own green land forever!

The recent surveys of handwriting have commonly included a test of the speed and of the form of the writing of the pupils. The test in the San Francisco schools was made by requiring the pupils to copy from certain texts. No account was taken of the time required. The comparison between the writing of the San Francisco pupils and those in other schools can be made, therefore, only on the basis of form.

A further limitation upon the report is that complete comparisons can not be made between the results in different buildings, since only two classes were examined in each building. The comparison, then, will be confined chiefly to the general excellence of the form of the writing in San Francisco as compared with certain other cities which have been surveyed.¹ Table 114 presents the scores made by each class which was tested and the average results from all of the pupils of each grade. The scores of the individual classes are given as totals rather than as averages, in order that the general averages might not be affected by the variation in the number of individuals in the various classes.

In order to draw a comparison these average results are presented in Table 115, together with the scores in form of the pupils in 55 cities, and also the form of the writing as determined in the surveys of Denver, Grand Rapids, and St. Louis.

¹ L. P. Ayres: Scale for the Quality of Handwriting of School Children; Russell Sage Foundation, New York.

TABLE 114.—Scores in form in the individual classes and the average scores by grades.
 (The first column under each grade gives the number of pupils in the class; and the second column, headed Rank, gives the sum of the scores in terms of the Ayres scale.)

2A	2B		3A		3B		4A		4B		5A		5B		6A		6B		7A		7B		8A		8B	
	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.	No.	Rank.
14	825	11	390	8	290	8	250	37	1,075	35	2,245	40	3,420	34	2,165	15	975	14	925	14	2,095	11	670	36	2,595	
34	1,180	44	4,715	43	2,060	39	1,940	45	2,430	33	2,890	8	3,385	52	3,215	12	715	23	1,405	40	570	20	1,375	10	675	
20	1,265	16	685	15	545	37	1,930	2	85	26	2,090	21	1,190	44	2,640	28	2,570	13	875	43	2,060	5	375	14	1,165	
44	1,770	41	1,620	33	1,440	37	1,970	41	2,115	41	2,115	...	...	34	2,460	37	1,860	41	2,620	5	1,250	46	3,000	8	565
0	0	30	1,300	30	1,300	38	1,870	...	...	33	1,865	...	...	20	1,870	...	...	33	2,165	3	115	25	1,705	22	1,595
...	...	41	1,770	...	...	36	1,825	...	...	...	...	...	...	34	1,710	...	...	...	...	...	...	46	2,215	26	1,485
...	19	780	34	1,710	19	1,035
...	...	...	...	...	...	40	1,510	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	154	5,325	221	8,920	66	2,805	275	13,250	84	4,190	219	11,660	78	4,098	238	14,420	102	6,448	88	3,045	78	5,160	184	11,405	125	8,260
Average	...	35.9	...	40.4	48.2	66.1

TABLE 115.—Comparison of form in handwriting in San Francisco and in certain other cities.

Cities.	Second grade.		Third grade.		Fourth grade.		Fifth grade.		Sixth grade.		Seventh grade.		Eighth grade.	
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
San Francisco.....	{A. 35.9	43.4	49.9	61	60.2	52.8	62.5							
55 cities.....	{B. 40.4	48.2	53.2	60.6	63.9	66.2	68.1							
Denver.....	33	39.5	46.6	50.1	56.6	62.3	65.8							
Grand Rapids.....		26	31	38	43	51	57							
St. Louis.....	29.4	34.5	44.4	51.7	58.3	61.4	68.4							
	29.9	31.7	36.8	52.1	57.3	62.8	74.3							

A comparison of the scores by grades indicates that in general, so far as form is concerned, the San Francisco pupils rank high. This is particularly true in the lower and the intermediate grades. In the eighth grade, while they are superior to Denver, they are about equal to the average of the 55 cities and slightly below Grand Rapids and St. Louis.

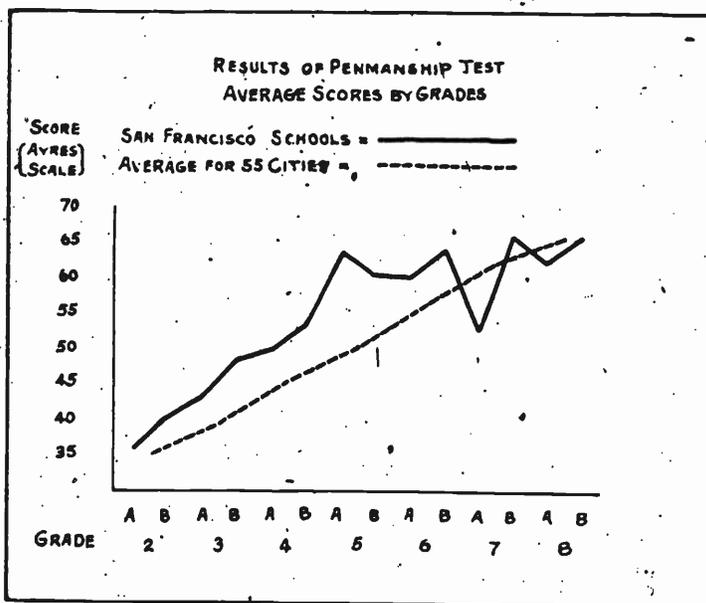


FIGURE 62.—As judged by the schools tested, San Francisco children make rapid progress in penmanship up to the fifth grade, but practically no improvement from that point on. The fact that in this and three other tests there is a marked drop in grade 7 suggests a problem for further study.

A graphic comparison of San Francisco with 55 cities is presented in Figure 62. The peculiar form of progress from grade to grade is well brought out by this chart. The improvement is rapid up to the fifth grade, but there is practically no progress from that grade on. It may be that this peculiar type of progress is to be interpreted as

indicating that there is less emphasis on speed in the lower grades and more in the upper grades, but this can only be a guess.

In the other cities which have been surveyed in detail it is found that there is considerable variation in practice in the relative emphasis upon these two qualities of writing in different parts of the school. This is a problem for which we have not at the present time a complete solution, but it is highly desirable that the supervisors in a school system should be alive to this problem and should work out experimentally the relationship between these two qualities which seems to be the most desirable.

Besides this general form in the curve, the fluctuations also deserve some comment. From the beginning of the fifth grade to the eighth there are several deviations from a regularly advancing progress curve. The most marked fluctuation is the drop in grade 7A. It would be unsafe to assume that this drop represents the practice in the system as a whole, for the reason that the record is based upon only 73 pupils, who are distributed among three schools. This fluctuation is in all probability due to the deviations among the schools and to the fact that low classes happened to be selected to represent this grade.

In order to draw such comparison as the data furnish between similar classes in different schools, and by this means to throw some light on the matter of variations, Table 116 was prepared. Only those classes were chosen in which the membership is 20 or more. The averages at the bottom are for all the pupils who were tested. In order to get some measure of variation, the number of classes which deviate from the average for their grade by an amount equal to the average progress made during a school year were counted. This amount is 5 points. The scores of those classes which deviate 5 points or more are italicized. Twenty-eight per cent of all the classes deviate by this amount from the average. Such deviations as these make it highly desirable that tests be made for supervisory and administrative purposes which shall discover the strong and the weak places in the school system and serve as a basis for increasing the efficiency of the schools or grades which are below standard.

SUMMARY OF CONCLUSIONS.

The results are sufficient to indicate that so far as form alone is concerned, the writing of the pupils in San Francisco is good. Whether this excellence is attained at the sacrifice of speed or in company with the attainment of a satisfactory speed is not established by the results of these tests.

TABLE 116.—Penmanship test: Comparison of the standings of classes in different schools which are represented by a membership of 20 pupils or more, with the average for all classes of same grade.

NOTE.—Thirteen classes out of 47, or 28 per cent, deviate by five points or more from the grade average. The standings of such classes are italicized.

Grade.	School.	Stand- ing.	Grade.	School.	Stand- ing.	Grade.	School.	Stand- ing.	
2A	3	34	4B	7	64	6B	20	63	
	18	35		3	55		6	61	
	21	39		15	58		10	60	
		35		13	52			Average	63.9
		Average		35.9	9		45			48
3B	4	39	5A		Average	63.2	7A	17	48
	9	40		2	70		Average	52.8	
	10	38		11	57	7B	14	60	
	11	43			Average	64		Average	61.2
	8	43		3	64	20	67		
3A		Average	40.4	22	62	8A	6	65	
	22	48	1	65	12		68		
		Average	43.4	18	63		25	65	
3D	7	50	5D	8	50		Average	62.5	
	15	53			Average	60.0	14	68	
	5	53		12	69	12	71		
	13	51		19	60	17	68		
	2	48			Average	60.2		Average	66.1
4A	10	51	6A						
	10	53							
		Average	49.2						
4A	4	55							
	21	84							
		Average	49.9						

The particular type of progress in form needs to be studied, and since it deviates considerably from the practice represented in other cities it should be viewed rather critically. Deviations from one school to another are shown to exist, while they can not be analyzed completely. These also require careful study.

SPELLING.

In giving the spelling test the instructions to the teacher included the following:

Pronounce the words in the enclosed list, allowing sufficient time for the pupils to write each one in order. Each word should be pronounced at least twice; the word may be used in a sentence, if desired, and any explanation given that may be necessary for its proper understanding by the pupils.

After the completion of the test, please go over the papers, place a check mark after each misspelled word, and mark the number of words spelled correctly. Use a blue pencil or red ink.

The words used in the test were taken at random from the Ayres' List B of "One Thousand Commonest Words." The words for

¹ L. P. Ayres: A Measuring Scale for Ability in Spelling; Russell Sage Foundation, New York.

each grade represent words which have been spelled correctly by 73 per cent of the children in that grade in tests conducted in numerous cities. The following are the word lists used:

<i>Second grade.</i>	<i>Third grade.</i>	<i>Fourth grade.</i>	<i>Fifth grade.</i>
1. nine	1. catch	1. eight	1. sometimes
2. got	2. able	2. aboard	2. period
3. spring	3. fell	3. restrain	3. firm
4. stone	4. soap	4. population	4. crowd
5. fall	5. express	5. figure	5. relative
6. put	6. table	6. everything	6. serve
7. Monday	7. road	7. farther	7. duo
8. take	8. power	8. knew	8. ledge
9. its	9. another	9. fact	9. information
10. sold	10. church	10. public	10. present
<i>Sixth grade.</i>	<i>Seventh grade.</i>	<i>Eighth grade.</i>	
1. often	1. meant	1. organization	
2. total	2. distinguish	2. emergency	
3. examination	3. assure	3. appreciate	
4. marriage	4. probably	4. sincerely	
5. opinion	5. responsible	5. athletic	
6. witness	6. difficulty	6. extreme	
7. theater	7. develop	7. practical	
8. supply	8. material	8. proceed	
9. course	9. senate	9. cordially	
10. doubt	10. agreement	10. character	

All papers have been carefully rechecked, and a few papers have been discarded, where an irregularity was apparent: as in the case of four papers in the 7A grade from one school, where the words from the sixth grade list had been spelled.

In the computations, no recognition has been taken of divisions of a grade, as 4B and 4A; e. g., all papers from a fourth-grade room have been regarded as fourth grade, whether 4A, 4B, or both.

In Table 117 the results of the test are shown in the average number of words spelled correctly for each school and each grade. The average standing of all the pupils tested in any school is given at the foot of the column for that school. The average standing of all the pupils tested in any grade is given in the right-hand column.

TABLE 117.—Results of spelling test: Per cent of words spelled correctly: averages by schools and grades.

SCHOOLS, BY NUMBER.

	1	2	3	4	5	6	7	8	9
Grade 2.....		76.0	87.0			91.0		73.0	
Grade 3.....				42.2	91.5				
Grade 4.....		78.6	79.1			94.9		65.7	75.9
Grade 5.....				66.9	92.2				
Grade 6.....	86.4						84.1		88.7
Grade 7.....							72.3		
Grade 8.....	85.6								
Average.....	86.04	77.30	83.16	56.42	92.91	86.17	78.38	69.27	82.21

	10	11	12	13	14	15	16	17	18	19
Grade 2.....						57.0	68.5			83.0
Grade 3.....	82.8	71.8				81.04	96.05	78.3		
Grade 4.....								81.8		87.2
Grade 5.....	91.7	76.2	73.9		91.0					
Grade 6.....					84.4					83.3
Grade 7.....			77.1	77.6						
Grade 8.....				85.3					86.8	
Average.....	88.09	74.13	76.68	81.4	88.89	70.77	63.52	66.16	84.85	84.92

	20	21	22	23	24	25	26	27	28	Average
Grade 2.....				41.0						72.0
Grade 3.....		92.0	85.4	85.7				84.7		75.14
Grade 4.....		75.8				75.8				81.4
Grade 5.....			85.3			75.5		72.4		80.5
Grade 6.....	78.0						82.7		90.7	85.4
Grade 7.....	61.0				84.8		80.0			77.2
Grade 8.....					93.6				88.7	84.3
Average.....	66.67	80.06	84.39	49.23	89.15	75.65	81.50	78.45	89.74	78.36

From this table it appears that the second-grade classes tested ranged from 41 to 87 per cent of words spelled correctly, and averaged 72. The third grade ranged from 42.2 to 96.05 per cent, averaging 75.14, and so on. These facts for each grade tested are shown in Figure 63, together with the average for the schools tested by Ayres, 73 per cent.

The average standing of the fifth grades is 0.9 per cent lower than that of the fourth grades. The average of the seventh grades is 8.2 per cent lower than that of the sixth grades, 3.3 per cent lower than that of the fifth grades, and 4.2 per cent lower than that of the fourth grades.

In Table 118 the results of the test are shown, in the average number of words spelled correctly for each school and each grade boys and girls separately.

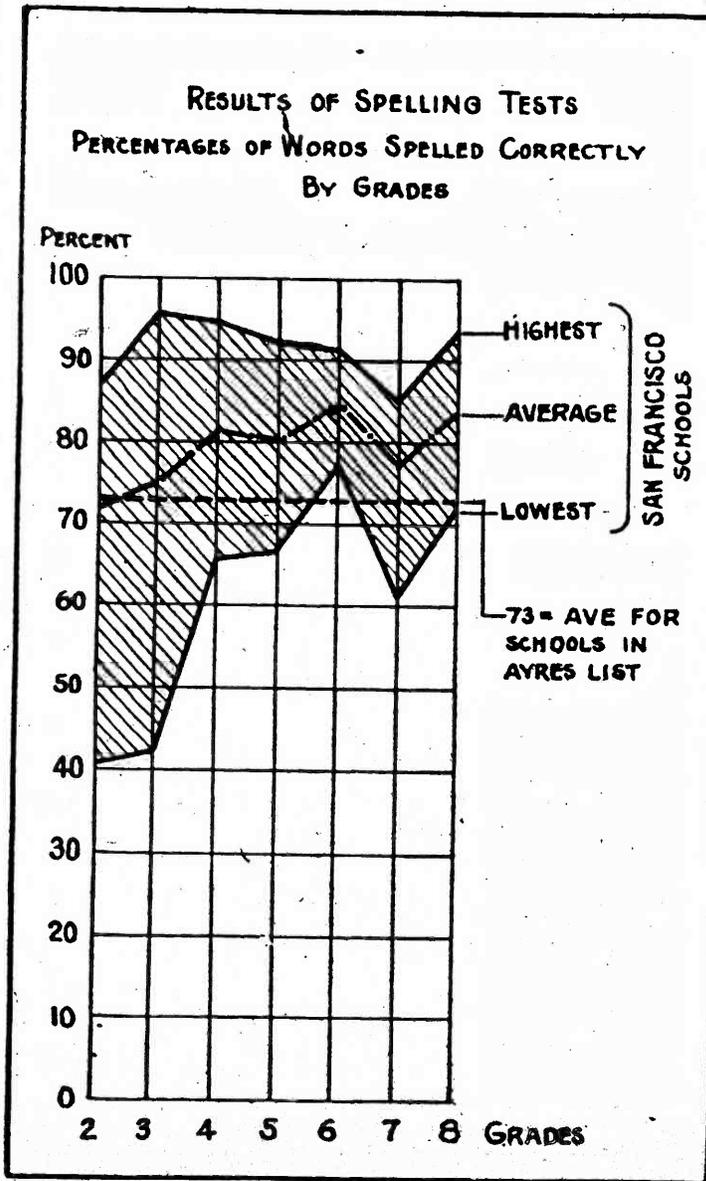


FIGURE 63.—On one vertical line for each grade is shown the amount of variation from the average to the lowest and highest scores in spelling. In every grade except the second the average score is above the standard, 73. Following the high average of the sixth grade, the drop in the seventh's particularly noticeable.

1

TABLE 118.—Results of spelling test: Per cent of words spelled correctly; averages by schools and grades—boys and girls separately.

SCHOOLS, BY NUMBERS.

Grades.	1		2		3		4		5		6	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Grade 2.....			75.0	80.0	88.5	85.9					80.8	80.0
Grade 3.....			75.0	80.9	72.8	85.9	88.0	87.0	92.0	98.0		
Grade 4.....							83.3	75.4	89.3	94.7		
Grade 5.....	88.0	88.3										
Grade 6.....												
Grade 7.....	82.55	87.5										
Grade 8.....												
Average.....	81.0	87.88	75.00	80.65	81.00	85.90	80.48	65.40	90.02	95.33	87.49	80.00

Grades.	7		8		9		10		11		12	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Grade 2.....			67.5	77.6								
Grade 3.....							82.5	86.0	81.0	84.0		
Grade 4.....				65.7	82.1	78.6						
Grade 5.....							88.0	93.5	74.8	79.1	70.8	78.2
Grade 6.....	80.0	87.8			82.3	90.4						
Grade 7.....											79.5	79.1
Grade 8.....	67.0	77.34										
Average.....	73.65	82.50	67.50	69.74	82.17	82.83	84.53	92.78	69.01	81.97	74.75	78.58

Grades.	13		14		15		16		17		18	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Grade 2.....							60.0	71.0				
Grade 3.....					73.0	81.0	70.0	68.4	79.5	83.0		
Grade 4.....							83.3	94.2				
Grade 5.....			88.4	93.6								
Grade 6.....			85.4	82.9							82.1	76.0
Grade 7.....	70.5	76.5										
Grade 8.....			85.13								80.82	86.87
Average.....	76.50	82.52	87.30	90.72	73.00	81.00	67.27	69.53	86.03	80.80	82.17	86.70

Grades.	19		20		21		22		23		24	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Grade 2.....	82.0	84.5							50.0	32.0		
Grade 3.....					100.0	86.0	84.0	87.0	84.0	90.0		
Grade 4.....	81.5	90.0			66.0	86.0						
Grade 5.....												
Grade 6.....			66.6	82.5			85.0	94.7				
Grade 7.....			50.0								77.8	82.5
Grade 8.....											90.9	95.53
Average.....	81.73	87.82	54.98	82.50	76.00	86.38	84.41	91.02	58.00	38.88	82.60	90.33

Grades.	25		26		27		28		Average.	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Grade 2.....									75.0	74.9
Grade 3.....					86.0	88.0			79.0	80.0
Grade 4.....	71.6	80.0							84.1	81.7
Grade 5.....	73.3	78.6			71.3	74.4			74.4	84.0
Grade 6.....			78.0	84.1			60.0	90.8	82.8	88.3
Grade 7.....			82.2	79.4					76.0	80.2
Grade 8.....							91.23	87.2	82.5	88.12
Average.....	72.60	78.05	79.57	83.00	78.30	78.70	91.00	89.37	78.497	82.589

From this table it appears that 13 groups of boys and 5 groups of girls fall below the standard average, 73 per cent, set by the Ayres investigation.

In 11 of the 24 schools tested the difference between the average for boys and that for girls is 6 per cent or more (in four cases, 12.5 per cent or more). In only 2 of the 24 schools is the average standing of the girls lower than that of the boys.

Summary of conclusions.—The results are sufficient to indicate that the city as a whole ranks considerably above the standard average for a large number of cities investigated by Ayres.

Of 24 schools tested, 5 average below 73 per cent. All the others are well above that mark, with an average for the entire number of schools of 79.36, which is 6.36 per cent above the standard for the lists of words used.

The fact that the girls seem to spell uniformly better than the boys should suggest to principals and teachers certain possible modifications in emphasis and methods of instruction.

Further tests should be made in all the schools of the city to determine the causes of the wide variations in the achievements of the pupils, and especially the reasons for the relatively inferior standing of the seventh grades.

READING.

In giving the reading test the teacher was furnished a quantity of forms published in the series entitled: "Scale Alpha 2, for Measuring the Understanding of Sentences," by Prof. E. L. Thorndike.¹ Sets I and II were used in grade 3. Sets III and IV were used in grade 4 and grade 5. Sets IV and V were used in grade 6, grade 7, and grade 8.

The following extracts will indicate the character of the tests:

SET I.

Read this and then write the questions. Read it again if you need to.

John had two brothers who were both tall. Their names were Will and Fred. John's sister, who was short, was named Mary. John liked Fred better than either of the others. All of these children except Will had red hair. He had brown hair.

1. Was John's sister tall or short?
2. How many brothers had John?
3. What was his sister's name?

¹ E. L. Thorndike: An Improved Scale for Measuring Ability in Reading; Teachers College Record, Nov., 1915, Jan., 1916, Columbia University, New York.

SET IV.

Read this and then write the answers to 1, 2, 3 and 4. Read it again if you need to.

You need a coal range in winter for kitchen warmth and for continuous hot-water supply, but in summer when you want a cool kitchen and less hot water, a gas range is better. The x-y-z ovens are safe. In the end ovens there is an extra set of burners for broiling.

1. What effect has the use of a gas range instead of a coal range upon the temperature of the kitchen?
2. For what purpose is the extra set of burners?
3. In what part of the stove are they situated?
4. During what season of the year is a gas range preferable?

The instructions to the teacher included the following:

Instruct the pupils to "follow the directions as printed on the sheets." Give no other instructions or assistance. Allow sufficient time for each pupil to do his best, but not more than 40 minutes in any case. Then collect the papers and deliver to the principal.

The ability in reading recorded for each grade from the various schools was determined by the results from the set which most nearly measured the grade or by the average from both sets where each test seemed about equally valid in testing the grade. Scoring and grading were made according to the regulations given in Teachers Colleger Record, November, 1915. The figures in the tabulations given below represent the difficulty in reading which the pupils of the grade can handle, based on the assumption that the standard difficulty for average pupils in these grades is as follows, determined by Thorndike:

Grade.....	IV	V	VI	VII	VIII
Standard.....	5.25	5.75	6.50	7.00	7.50

A summary of the results of the tests is given in Table 119.

TABLE 119.—Results of reading tests: Average standings by schools and grades.

Schools.	Grades.					
	III	IV	V	VI	VII	VIII
	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.
No. 1.....	4.25		7.70			
No. 2.....	5.46			6.96		
No. 3.....	5.25				6.21	
No. 4.....	4.34					7.60
No. 5.....		5.61				8.40
No. 6.....					8.08	
No. 7.....	4.85		6.62			
No. 8.....		5.59	6.04	6.14		
No. 9.....	(1)		6.70			
Nine schools ²	4.90	5.56	6.59	6.53	7.35	7.53

¹ Sets I and II did not prove a test for the grade.
² The figures reported here as representative ability for each grade, all nine schools taken as a unit, were calculated from original data and do not represent averages from individual schools.

In view of the fact that only two tests each for grades four, six, seven, and eight are available to represent work for all schools of the system in these grades, and that the results in the entire 18 rooms tested show such striking and extreme variations, the investigator does not feel justified in reporting the "nine schools" record (see Table 119) as the San Francisco standard. For this reason comparison of this standard with the Thorndike standard would be misleading in determining the quality of work for the system as a whole. However, a study of these summary "nine schools" records would demand a further testing to explain the exceptional record of the fifth grade, and to find out if the true San Francisco standard were also superior to the Thorndike standard at each point.

Although the tests reported for the individual schools are too limited to justify specific conclusions concerning the work being done in each, the data as secured are herewith reported in a comparative manner to make them as suggestive as possible in the hope that a complete investigation of the problems involved may be encouraged thereby.

The variation among schools and among grades within a single school suggests that the teaching of reading in the San Francisco schools presents a serious situation. The third grade in one school is unable to handle Set II, because it is too difficult, while in another school it is no test for the third grade, being too easy. In School No. 1 the children in the third grade made lower records than any other school, being represented by difficulty 4.25; in the fifth grade of the same school the pupils did work of difficulty 7.70, which is better than the standard for the eighth grade set by Thorndike. This means that in two years the pupils make about twice the normal advancement for such years. Sufficient data might justify such a variation. On the other hand, School No. 3 makes the highest record of all third grades tested, reaching the standard for the normal fourth; in the seventh grade of this school the record is less than the standard for the normal sixth grade. This means that the pupils in this school have made relatively little progress in reading from the third to the seventh grade; hardly two years' progress in four years, or one-half the normal advancement.

This variability among the grades is graphically represented by figure .64. By comparing the maximum and minimum records for each grade, this variation is seen to be greatest for the fifth and seventh grades and indicates that the pupils as a unit in one school are three years ahead of those of another in reading ability, yet they are in the same grade.

An interesting and significant comparison in this respect is that between pupils in different schools, but in the same grade, at the same

stage of progress in the system. This is shown in figure 65, where five schools are compared on the basis of records made by grade three in each school, on the same tests. Here it is evident that there is as much difference between the extremes as between the standards for the sixth and eighth grades. That is, some rooms of the third grade are two years in advance of other rooms of the same grade in reading ability.

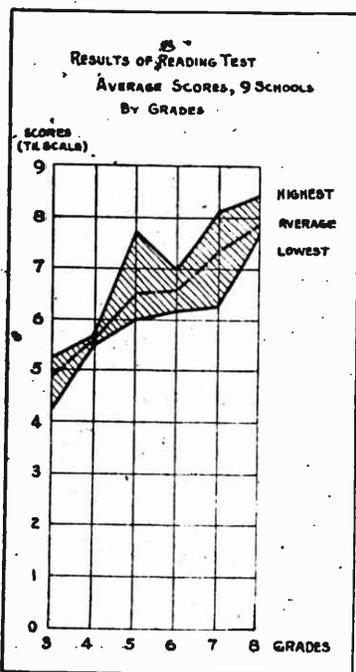


FIGURE 64.—On one vertical line for each grade is shown the amount of variation from the average to the lowest and highest scores in reading. In some of these cases the scores were obtained by averaging the results of tests with two sets of questions, and, hence, differ somewhat from the scores shown in figure 63.

The results from Set IV give another striking example of varying standards, as this test was given in the fourth, fifth, sixth, seventh, and eighth grades. Since each grade was dealing with the same test, we should expect a rather uniformly increasing record from the fourth to the eighth grade in all schools. Reference to Table 120 and figure 65 discloses the irregularities. The fifth-grade records of Schools Nos. 7 and 1 rank about equal to that of the eighth grades in Schools Nos. 4 and 5. An average pupil from the seventh grade of School No. 3 could be placed in the fifth grade of Schools Nos. 1, 7, 8, or 9 and be well classified in reading; if he were transferred to School No. 6 and continued work in the same grade,

the seventh, he would be working with pupils whose reading ability is at least two years in advance of his.

TABLE 120.—Comparison of schools by grades on same test, Set IV.

Schools.	Grades.				
	IV	V	VI	VII	VIII
1		7.70			
2			6.95		
3				6.21	
4					7.05
5	5.90				7.88
6				7.48	
7		6.90			
8	5.74	6.23	6.14		
9					
Eight schools.....	5.89	6.65	6.53	7.11	7.40

In any school system one would expect individual pupils to overlap grades to a great extent, and beyond a certain point it is impossible and undesirable to secure uniform progress in all schools in the same grades; but when the variations in achievement of pupils for the grade as a whole involve the overlapping of three or four grades, the schools of the system are not giving their pupils the equality of

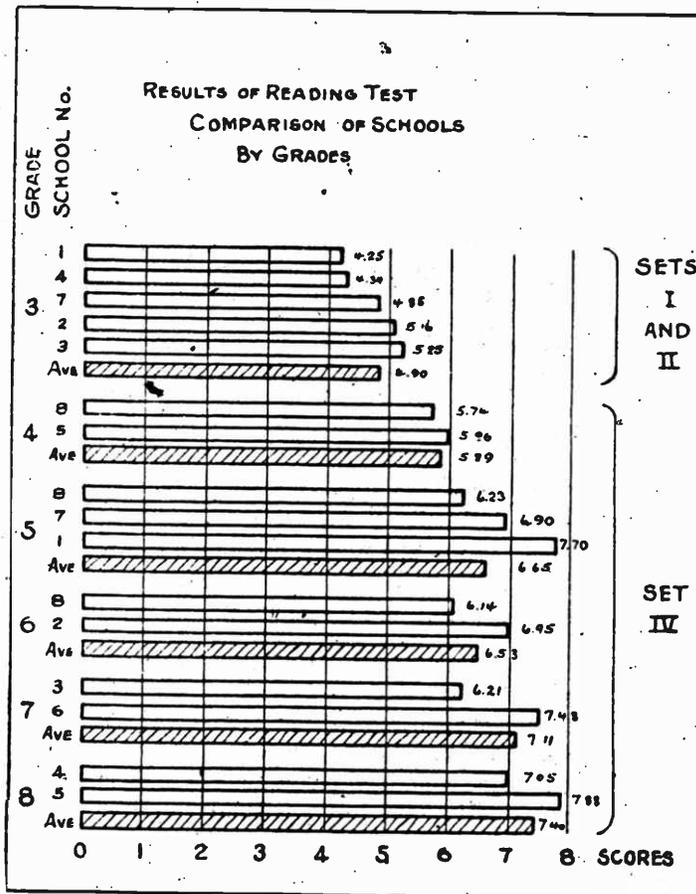


FIGURE 65.—The scores in the reading test made by the various grades in different schools are arranged in groups for comparison. Although grades 4, 5, 6, 7, and 8 were all tested on the same set of questions, Set IV, one fifth grade made an average score (7.70) higher than any sixth or seventh grade, and higher than the average of the two eighth grades tested (7.40).

opportunity or the uniformity of training in reading which might reasonably be demanded of them.

Conclusions.—These facts indicate that the most significant problems in instruction in reading confronting the San Francisco public schools are:

1. The standardization of the work in reading for the system as a whole, so that the achievements of pupils in each grade will represent

a rather definite ability, and ability which is reasonably graduated from year to year.

2. Reasonable uniformity in progress for the individual schools, since the variation in reading ability for the same grades in different schools and for different grades in the same school seems so great as to present a serious problem in transferring and promoting pupils.

It is recommended therefore that reading tests be conducted on a much larger scale to determine the standard for the system which should characterize the reading ability in each grade. The results of tests throughout individual schools would enable the respective principals to locate irregularities and to make the adjustments which would produce proper graduation of work in the several schools and restore reasonable conformity to the standards in reading for the system as a whole. By such means the solution to these problems can be definitely and correctly determined.

ARITHMETIC.

In giving the arithmetic test the teacher was furnished a quantity of forms published in the "Curtis Standard Research Tests" series, entitled "Arithmetic, B."

THE CURTIS TEST.

Identically the same test was given in grades five, six, seven, and eight. The following extracts will indicate the character of the tests.

Preceding each part of the test were printed instructions similar to the following:

You will be given eight minutes to find the answers to as many of these addition examples as possible. Write the answers on this paper directly underneath the examples. You are not expected to be able to do them all. You will be marked for both speed and accuracy, but it is more important to have your answers right than to try a great many examples.

The test in addition consisted of 24 examples in adding three-place numbers. Each example contained nine numbers to be added. The time allowed for this part of the test was eight minutes.

The test in subtraction consisted of 24 examples in subtraction of eight-place numbers. The time allowed was four minutes.

The test in multiplication consisted of 25 examples in multiplying a four-place number by a two-place number. The time allowed was six minutes.

The test in division consisted of 24 examples in dividing a four or five place number by a two-place number. The time allowed was eight minutes.

One example selected from each test is given below:

Addition.	Subtraction.	Multiplication.	Division.
927	107795491	8246	25) 6775
379	77197029	29	
756			
837			
924			
110			
854			
965			
344			

Each pupil was given a small eight-page pamphlet containing the examples to be worked, so arranged as to provide spaces for the answers and necessary figuring, and detailed instructions.

THE STONE TEST.

In addition to the foregoing tests in the four fundamental operations, a fifth test was given, using a set of problems involving reasoning. The time allowed was 15 minutes. The problems used for this purpose are given below.

In parentheses following each problem is stated the amount of credit given to each in scoring the answers. By "credit" is meant a certain weight assigned to each problem according to its degree of difficulty as determined by the number of children failing on it in Stone's investigations.¹

PROBLEMS IN ARITHMETIC.

1. If you buy 2 tablets at 7 cents each and a book for 65 cents, how much change should you receive from a two-dollar bill? (1)
2. John sold 4 Saturday Evening Posts at 5 cents each. He kept $\frac{1}{3}$ the money and with the other $\frac{1}{3}$ he bought Sunday papers at 2 cents each. How many did he buy? (1)
3. If James had 4 times as much money as George, he would have \$16. How much has George? (1)
4. How many pencils can you buy for 80 cents at the rate of 2 for 5 cents? (1)
5. The uniforms for a baseball nine cost \$2.50 each. The shoes cost \$2 a pair. What was the total cost of uniforms and shoes for the nine? (1)
6. In the schools of a certain city there are 2,200 pupils; $\frac{1}{3}$ are in the primary grades, $\frac{1}{3}$ in the grammar grades, $\frac{1}{3}$ in the high school, and the rest in the night school. How many pupils are there in the night school? (1.4)
7. If $3\frac{1}{2}$ tons of coal cost \$21, what will $5\frac{1}{2}$ cost? (1.2)
8. A newsdealer bought some magazines for \$1. He sold them for \$1.20, gaining 5 cents on each magazine. How many magazines were there? (1.0)
9. A girl spent $\frac{1}{3}$ of her money for car fare, and three times as much for clothes. Half of what she had left was 80 cents. How much money did she have at first? (2)
10. Two girls receive \$2.10 for making buttonholes. One makes 42, the other 28. How shall they divide the money? (2)

¹ C. W. Stone: *Arithmetical Abilities and Some Factors Determining Them*; Teachers College, Columbia University, 1908.

11. Mr. Brown paid one-third of the cost of a building; Mr. Johnson paid one-half the cost. Mr. Johnson received \$500 more annual rent than Mr. Brown. How much did each receive? (2).

12. A freight train left Albany for New York at 6 o'clock. An express left on the same track at 8 o'clock. It went at the rate of 40 miles an hour. At what time of day will it overtake the freight train if the freight train stops after it has gone 56 miles? (2)

The instructions to the teacher included the following:

Follow the "Instructions to Examiners," as given in the printed folder, beginning on page 2, and ending with paragraph 13, on page 7. Omit paragraph 12, and paragraphs 14 to 19, inclusive. Allow a brief resting space after each test.

SUMMARY.

1. *Findings.*—The results indicate that, in general, the San Francisco children made an unusually good showing in speed, except in the reasoning problems. This statement is based upon comparison of their achievements in these tests with standards in speed that have been worked out by experts, and with the records of similar tests in other cities.

In accuracy, with similar comparisons, the San Francisco children did not do so well. The results for accuracy in the various grades are too low. They do not show the usual increases in accuracy with progress through the grades.

San Francisco children did not use all the four fundamental operations equally well. They did very well in subtraction, fairly well in addition, but not so well in multiplication and division.

The children did not reason fast or well in the reasoning tests.

The increase in ability in the various tests was not uniform. The seventh grade is below the sixth in practically everything.

Many children were found in the eighth grade with no more ability to solve problems than the upper half of the children in the fifth grade showed.

The tendency of the children in the grades to vary in their ability to solve problems increased as the grades advance.

There was wide variation in the showings of different schools.

In all arithmetic work too much time and emphasis have apparently been placed on speed rather than accuracy.

2. *Recommendations.*—More emphasis should be placed on accuracy in all phases of arithmetic work.

There should be an extended study to find why the seventh grade drops in everything.

There should be a study of individual schools to find out why certain schools so far outstrip others.

There should be a study of individual pupils to see if some may not be excused from arithmetic, or from drill at least; whereas certain others probably ought not to be promoted in the subject.

More emphasis is needed on certain fundamental operations.

Much more emphasis should be placed on reasoning work.

These are general statements. There are many exceptions to be found in the individual grades, which will be pointed out later in this report.

THE NATURE OF THE TESTS USED.

1. THE COURTIS TESTS.

These tests aim at finding out such things as whether or not the child or class has learned: (1) Fundamental operations, (2) column adding, (3) carrying, (4) working at the proper speed, (5) working with sufficient accuracy, etc.

In this series of tests Dr. Curtis, by testing thousands of children in the grades all over the country, has worked out a standard which each grade should attain in both speed and accuracy in a certain number of minutes.

The standards of the test are that each pupil of the grade shall solve correctly within the given time a number of problems, as follows:

Grade.	Addi- tion.	Subtra- tion.	Multipli- cation.	Division.
V.....	7	8	7	6
VI.....	9	10	9	8
VII.....	11	11	10	10
VIII.....	12	12	11	11

Only problems correctly solved are counted.

The time given to addition was eight minutes, to subtraction four minutes, to multiplication six minutes, to division eight minutes.

These standards may be used as follows:¹

1. To make comparisons of: (a) The work of this and other school systems; (b) the work of individual teachers within a system.

2. To define an aim in arithmetic work for the fundamental operations. For example, eighth-grade pupils should be drilled in addition until they can add correctly in eight minutes 12 examples, each example three columns wide and nine figures long. Similar aims or standards are set up for each grade in each operation.

3. To set a limit of training or drill; as, as soon as an eighth-grade pupil reaches the above standard, he should be excused from further drill or practice in addition. The same principle applies to other grades and operations.

4. To specialize training; as, the pupil that is up to standard in addition but below in subtraction should be given increased drill in subtraction.

¹ Manual of Instruction, Curtis Standard Tests, p. 74 (language adapted to context).

5. To diagnose and remedy individual defects; as, if the child's scores do not rise with the class practice, he should be studied individually, his symptoms observed, his difficulties discovered, and the proper adjustments of his work made.

2. THE STONE TESTS.

For testing the ability of the fifth, sixth, seventh, and eighth grade pupils to reason accurately in the solution of simple arithmetical problems, the Stone reasoning tests were used. These tests were worked out by Dr. C. W. Stone some years ago primarily for sixth-grade children, but they have been successfully used in various places for testing all grades from the fifth to the eighth, inclusive.

These problems aim to embody the following conditions:

1. Items equally familiar to all children.
2. Difficulties increasing gradually—
 - (a) As to arithmetical thinking.
 - (b) As to familiarity with the situation presented.
3. The omission of—(a) Large numbers; (b) particular memory requirement (as of tables, terms, etc.); (c) catch problems; (d) all textbook material except whole numbers, fractions, and United States money.¹

TABLE 121.—Distribution table for attempts on Curtis tests.

		ADDITION (TIME 8 MINUTES) ATTEMPTS.																									
Grades.	Total papers.	Number of examples worked.																								Median score.	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
VIII.....	219				1	1	3	8	9	19	21	26	22	24	15	10	15	13	7	5	5	5	1	2	2	5	11.86
VII.....	276		3		6	10	13	25	19	39	31	39	25	17	10	14	9	8	1	2	2	1	1	1	1	9.77	
VI.....	299		1	1	1	7	8	9	14	40	42	35	17	30	17	10	9	10	5	4	2	4	3		1	10.33	
V.....	297		2	10	24	32	35	34	54	25	27	24		4	4	3	6	9	2	2						8.21	

		SUBTRACTION (TIME 4 MINUTES) ATTEMPTS.																									
Grades.	Total papers.	Number of examples worked.																								Median score.	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
VIII.....	219					1	1	1	3	11	11	20	24	14	23	14	18	12	8	11	2	19	9	1	2	12	13.63
VII.....	273						3	9	15	26	29	35	34	29	24	11	18	14	8	6	7	1	1	1	3	12.67	
VI.....	299					2	11	15	12	24	33	28	18	28	22	20	10	13	8	3	4	5	3	2	7	11.49	
V.....	291		1	1	6	12	16	25	43	38	35	33	25	14	21	10	7	2	2			1	2			9.18	

		MULTIPLICATION (TIME 6 MINUTES) ATTEMPTS.																								
Grades.	Total papers.	Number of examples worked.																								Median score.
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
VIII.....	219					2	8	10	15	21	35	34	37	17	13	14	8	2	4	2	1	1				10.54
VII.....	273		1	1	2	4	16	31	42	34	46	34	32	18	7	4	2	1								9.18
VI.....	299			2	1	9	20	26	45	34	45	27	20	17	13	4	1	1								8.33
V.....	291		1	3	14	20	60	61	53	31	24	13	9		3	2										6.80

		DIVISION (TIME 8 MINUTES) ATTEMPTS.																								
Grades.	Total papers.	Number of examples worked.																								Median score.
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
VIII.....	218		1		4	6	19	20	10	31	29	12	15	29	14	11	9	3	3	1						9.63
VII.....	276		1		2	4	21	27	30	46	45	31	21	17	16	7	2	1	2		2					8.15
VI.....	299		1	1	3	8	18	33	47	35	40	27	21	11	13	4	3	2	2							7.67
V.....	297		4	23	41	46	45	36	47	11	21	6	7	3	1	2	1	3								4.76

¹ Stone, C. W. "Arithmetical Abilities and Some Factors Determining Them."

FINDINGS ON THE COURTIS TESTS.

(1) *Attempts.*—(a) Absolute figures.—Table 121, which should be largely self-explanatory, shows the distribution of children with respect to the number of examples attempted in the Curtis tests. By the term “attempts” is meant the number of examples solved through to an answer, whether correctly solved or not. Partially solved examples are not counted. The table is read as follows: In the eighth grade addition, one child attempted to finish three problems; one child, four problems; three children, five problems, etc.

This table gives us the basis for finding the median score for attempts for each grade for each operation (last column on right). The median is the place or point in a series such that the same number of cases fall above the point as below it. To illustrate, in a spelling class of 21 pupils ranked according to ability the eleventh pupil is the median pupil, throwing 10 children above and 10 below the median. From the top figure in the right-hand column we see that in the Curtis test for addition, Grade VIII, the median number of problems attempted is 11.98. This means that 109 pupils out of 219 tried more than 11.98 problems, and that 109 pupils from the same 219 pupils tried less than 11.98 problems. The fractional number of problems is given because all the pupils solving 11 problems are assumed to range in real ability from barely 11 up to just short of 12. The median thus comes close enough to 12 to be called 11.98.

(b) Comparisons by per cents inside San Francisco.—The preceding has dealt only with the absolute number of children making each score on attempts. As the numbers in the different grades are not the same, these numbers have been turned into percentages in Table 122, which shows the distribution of children with respect to the per cent in each grade making each score, the median score, and the per cent of variability.¹

Explanation: Five-tenths of 1 per cent of the 219 children in Grade VIII made a score of 3. This means that five-tenths of 1 per cent of the 219 children attempted and solved through to an answer three examples; it does not mean that the three examples were solved correctly.

¹ See p. 264

TABLE 122.—Per cent of children making each score on attempts in *Courts tests*.

ADDITION: ATTEMPTS. PER CENT OF CHILDREN MAKING EACH SCORE.

Grades.	Num-ber of chil-dren.	Number of examples worked.																				Median score.	Per cent of vari-ability.				
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			20	21	22	23	24
VIII.....	219				0.5	1.4	3.7	4.1	0.7	0.6	11.9	10.1	11.0	0.9	4.6	6.9	5.9	3.2	2.3	2.3	2.3	0.5	0.9	0.9	2.3	11.96	19.6
VII.....	276				1.0	2.1	3.6	4.7	0.1	6.9	13.8	11.8	11.2	8.1	5.2	3.9	5.0	3.3	2.9	4.4	7.7	4.4	4.4	4.4	9.77	16.8	
VI.....	289				4	0.4	4.4	2.6	3.4	5.2	14.9	15.6	13.0	3.7	3.4	3.7	1.8	1.8	1.5	7	1.5	1.1			10.33	16.0	
V.....	297				0	3.4	8.1	16.3	11.8	11.6	18.2	8.4	8.1	8.1	1.2	1.3	1.0	2.0	3.0	0	6				8.21	18.7	

SUBTRACTION: ATTEMPTS. PER CENT OF CHILDREN MAKING EACH SCORE.

VIII.....	219				0.5	0.5	1.4	5.0	5.0	9.1	11.9	6.4	10.5	6.4	8.2	5.5	2.7	5.0	0.9	8.7	4.1	0.5	0.9	5.5	13.63	21.0
VII.....	276				0.4			1.0	3.3	5.5	9.5	10.6	12.7	12.5	10.6	8.7	3.7	4.8	2.9	1.1	2.2	2.6	4.4	4.4	12.57	14.4
VI.....	289				4			7	4.0	5.6	4.5	8.9	12.3	10.4	6.7	10.4	8.8	7.4	3.4	4.8	1.8	1.9	1.1	7	11.40	16.0
V.....	294				3	3	2.0	4.0	5.4	8.9	14.6	12.9	11.9	11.2	8.5	4.8	7.1	3.4	2.4	7.0	7			26	9.18	17.0

MULTIPLICATION: ATTEMPTS. PER CENT OF CHILDREN MAKING EACH SCORE.

VIII.....	219				0.4	0.4		0.9	3.6	4.6	6.9	9.6	16.0	15.5	14.6	7.8	3.9	6.4	3.7	0.9	1.8	0.9	0.5	0.5	10.74	12.0
VII.....	276				0.4	0.4		0.7	1.5	5.8	11.3	15.2	12.3	14.7	12.3	11.6	6.5	2.5	1.5	7	4				8.45	13.0
VI.....	289				3	1.0	4.8	3.2	7.4	9.7	16.7	18.1	16.7	10.0	2.4	6.3	4.4	1.5	4	4					6.80	12.0
V.....	294				3	1.0	4.8	0.8	20.4	20.7	18.0	10.6	8.2	4.4	3.0	1.0	3								6.80	12.0

DIVISION: ATTEMPTS. PER CENT OF CHILDREN MAKING EACH SCORE.

VIII.....	218				0.5			1.8	8.7	9.2	4.6	14.0	13.0	5.5	6.7	13.3	6.4	5.0	4.1	1.4	1.4	0.5	0.5	9.62	26.0	
VII.....	276				0.4			0.7	1.5	9.8	10.9	16.7	16.3	11.3	7.6	6.2	5.9	2.5	7	4					8.15	12.0
VI.....	289				4	1.1	2.9	6.9	12.3	17.5	13.0	14.9	10.0	6.8	4.0	4.8	1.5	1.1	8						7.67	16.0
V.....	297				1.4	7.8	13.8	15.5	15.2	12.0	15.8	3.7	7.0	1.7	2.4	1.0	3	7	3	1					4.76	21.0

(c) Comparison with other cities.—These showings for San Francisco, however, mean very little until they are compared with the results of such tests in other cities. Accordingly, Table 123 is appended, making such comparisons:

Comparison by grades of the median attempts in the fundamental processes, according to the Curtis tests, series B, of the schools of San Francisco with the cities of Boston (May, 1915), Detroit, Salt Lake City, 20 Indiana cities, a group of other smaller cities, the Iowa cities, and Kansas City. All tests were made in 1915, except those of San Francisco, which were made in 1916. The figures are taken from Bulletin No. 1 of the Bureau of Research and Efficiency of Kansas City, page 30.

TABLE 123.—Showing comparative standings, by per cents, of the San Francisco schools with other systems in problems attempted (Curtis tests).

Cities.	Addition.				Multiplication.			
	V.	VI.	VII.	VIII.	V.	VI.	VII.	VIII.
Boston.....	9.4	11.0	12.0	13.4	7.5	9.2	10.3	11.4
Detroit.....	8.4	9.6	10.3	12.0	7.4	8.9	9.5	11.2
Salt Lake City.....	6.9	7.9	9.1	9.9	6.6	7.7	8.5	10.8
Indiana cities.....	6.6	7.4	8.1	9.0	6.3	7.6	8.6	10.2
SAN FRANCISCO.....	8.2	10.3	9.8	12.0	6.8	7.8	9.2	10.6
Iowa cities.....	8.2	8.8	9.5	10.4	7.0	8.8	10.4	11.6
Other cities ¹	6.3	8.4	9.2	10.2	6.2	7.9	9.0	10.7
Kansas City ²	5.9	7.0	8.3	8.7	5.3	6.9	8.0	9.7

Cities.	Subtraction.				Division.			
	V.	VI.	VII.	VIII.	V.	VI.	VII.	VIII.
Boston.....	0.3	11.0	12.0	13.3	6.3	8.6	10.0	12.0
Detroit.....	9.4	10.1	11.2	13.6	5.7	8.5	9.4	12.1
Salt Lake City.....	7.5	8.5	10.1	11.8	4.4	6.7	8.7	10.3
Indiana cities.....	7.3	8.9	10.2	11.2	4.5	5.7	8.5	10.6
SAN FRANCISCO.....	9.2	11.4	12.6	13.9	4.8	6.7	8.2	9.6
Iowa cities.....	0.0	9.9	11.1	12.8	6.0	7.0	9.1	11.9
Other cities ¹	7.8	9.2	10.7	12.3	5.4	7.1	8.1	10.8
Kansas City ²	6.2	7.6	9.5	10.4	3.6	5.4	6.5	10.6

¹ A group of smaller cities tested by Curtis and called "Other cities."
² Kansas City has only seven grades in the elementary school. The fourth grade is compared with the 6th of the other cities, the fifth with the sixth, etc.

It will be observed that in addition the fifth grade in San Francisco is exceeded only by Boston and Detroit, by Boston in the sixth, by Boston and Detroit in the seventh, by Boston in the eighth. In subtraction San Francisco excels all other cities compared, except Detroit, which exceeds it by only two-tenths of 1 per cent in the fifth grade. In multiplication San Francisco does not show up so well, being exceeded in median attempts by Boston, Detroit, and the Iowa cities in the fifth grade; by Boston, Detroit, and "Other cities" in the sixth and seventh; by Boston, Detroit, Salt Lake City, the Iowa cities, and the "Other cities" in the eighth. In division it is exceeded by Boston, Detroit, the Iowa cities, and the "Other cities" in the

fifth and sixth; by all, except "Other cities," in the seventh; by all in the eighth.

It should be noted in passing that the high showing of Boston and Detroit may be due to the fact that children there have had more testing and drill on the Curtis tests than those in other cities. The Curtis tests were first worked out by Dr. Curtis in Detroit. They have been given a number of times in Boston and Dr. Curtis was at one time connected with such testing work in that city. This makes San Francisco's showing in speed all the more creditable.

This comparison indicates that there has been more time given to drill and practice in addition and subtraction than in multiplication and division. It could be conjectured that speed had been sacrificed to accuracy, but an examination of the table for accuracy shows that the grades are correspondingly low in accuracy where they are low in speed. So, it seems that addition and subtraction have been stressed at the cost of multiplication.

2. Accuracy.—(a) Comparison by per cents inside San Francisco.—Speed alone means little in arithmetic unless the work is accurate. Table 124 is a distribution table of accuracy, the figures indicating the number of pupils who solved correctly a certain per cent of the problems that they tried. As, for example, in the table under "Addition" and opposite Grade VIII, the figure 24 appears under the column headed 50. This means that 24 pupils in the eighth grade out of 219 solved correctly 50 per cent to 60 per cent of the problems that they attempted.

Under the heading "Median" and opposite Grade VIII appears the number 74.8. This means that one-half of the pupils of Grade VIII solved correctly 74.8 per cent or more of the problems that they attempted.

TABLE 124 — Number of pupils, by grades, correctly solving a given per cent of problems attempted (Curtis tests).

ADDITION.									
Grades.	0-49 per cent.	50 per cent.	60 per cent.	70 per cent.	80 per cent.	90 per cent.	100 per cent.	Pupils.	Median.
VIII.....	21	24	40	51	44	25	14	219	74.8
VII.....	52	32	53	41	52	15	29	276	69.8
VI.....	39	32	40	57	51	15	35	209	74.1
V.....	60	29	50	29	59	13	55	397	78.3
SUBTRACTION.									
VIII.....	3	11	14	25	51	63	52	219	80.80
VII.....	18	12	28	46	65	53	53	276	85.18
VI.....	18	14	31	45	62	41	58	308	84.27
V.....	46	22	17	47	63	30	60	304	82.62

¹ The term "speed" is used with reference to the per cent of examples attempted; the term "attempts" is used with reference to the number of examples attempted. When we say that a certain grade shows a high rate of speed, we mean that said grade attempted a great number of examples as compared with the standard number usually attempted by pupils in that time; the correctness of the examples is not considered.

² See p. 282.

TABLE 124.—Number of pupils, by grades, correctly solving a given per cent of problems attempted (Curtis tests)—Continued.

MULTIPLICATION.										
Grades	0-49 per cent.	50 per cent.	60 per cent.	70 per cent.	80 per cent.	90 per cent.	100 per cent.	Papers.	Median.	
VIII.....	17	26	33	30	43	22	28	219	76.08	
VII.....	37	30	49	54	69	21	26	276	74.07	
VI.....	20	32	30	53	60	15	53	308	73.77	
V.....	73	33	60	23	54	0	46	224	68.96	

DIVISION.										
Grades	0-49 per cent.	50 per cent.	60 per cent.	70 per cent.	80 per cent.	90 per cent.	100 per cent.	Papers.	Median.	
VIII.....	7	8	21	20	51	21	84	218	82.20	
VII.....	34	31	24	47	69	13	60	276	80.34	
VI.....	21	22	31	20	72	22	75	300	74.79	
V.....	123	36	28	12	28	2	63	307	67.08	

Figure 66 shows the median results for accuracy. In the eighth-grade division the median child had an accuracy of nearly 90 per cent—a very fine record. The fifth grade made a poor record in division; all grades lag behind in multiplication; the sixth grade runs ahead of the seventh and eighth; San Francisco children make little progress (from grade 5 to grade 8) in getting problems right in all operations except division.

A glance at the median column of Table 124 is sufficient to show that the various grades do not keep the same rank in the different operations. Accordingly, Table 125 is given to show which rank each grade occupies in each operation, 1 indicating the best and 4 the worst of the four grades. Thus the second column indicates that Grade VIII was best in addition, Grade VII poorest, Grade VI next to the top, and Grade V next to the bottom.

From Tables 124 and 125 it would seem that Grade VII needs drill in addition for accuracy. It is noticeable that in subtraction accuracy is high, and there is a gradual increase in accuracy as we go

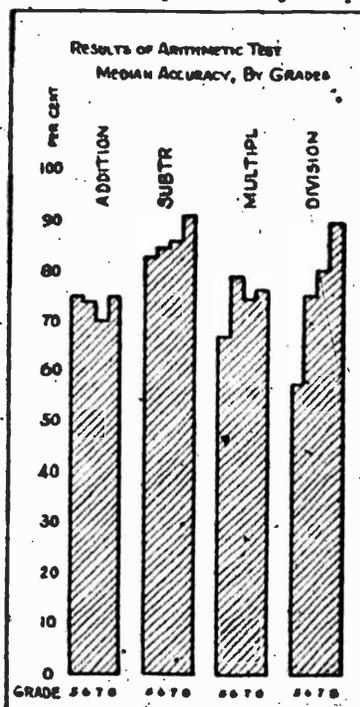


FIGURE 66.—The average scores of all grades tested in arithmetic are arranged in groups to show the amount of improvement from grade 5 to grade 8 in each of the four tests. Although tested on exactly the same examples, there appears to be no improvement in facility in addition from grade 5 to grade 8. A drop is noted in grade 7 in addition, and also in multiplication.

TABLE 125.—Order in which the grades rank in each operation on accuracy (Courtis tests).

Grades.	Addition.	Subtraction.	Multiplication.	Division.
VIII.....	1	1	2	1
VII.....	4	2	3	2
VI.....	2	3	1	3
V.....	3	4	4	4

upward through the grades from V to VIII. In multiplication it seems that Grade VI has been well drilled for accuracy and that the time for drill on this operation may well be shortened. In all other grades the accuracy is materially below that for subtraction, which fact may indicate a need for more drill for Grades V, VII, and VIII. Grade V is especially noticeable in this respect. In division the fifth grade runs low and may need more time to be given to drill in the operation.

If Dr. Courtis's standard for a 100 per cent accuracy be a good one, all the schools of San Francisco need drill to increase accuracy in the fundamental operations of arithmetic. However, there is a marked increase in accuracy in division of the eighth grade as compared with the fifth grade. Addition and multiplication do not indicate very pronounced increase of the eighth grade over the fifth grade. All grades rank very high in accuracy in subtraction.

(b) Variations in different schools in San Francisco.—There was, however, a wide variation in the accuracy attained by different schools. Table 126 shows a comparative study of the median accuracy in the grades tested. This does not include all of the schools of the city, but a list of 13 schools taken at random.

TABLE 126.—Median accuracy for each grade of 14 schools tested in San Francisco (Courtis tests).

Grades.	School.	Addition.	Subtraction.	Multiplication.	Division.
VIII B.....	4	81.3	91.8	70.5	98.6
B.....	7	80.5	81.6	82.5	98.3
B.....	12	80.0	91.8	90.0	91.1
B.....	6	74.6	88.1	76.3	85.0
A.....	7	74.3	91.1	78.0	97.6
B.....	2	70.9	84.4	72.1	80.0
A.....	9	62.0	83.5	77.8	89.3
A.....	12	59.0	93.0	90.2	94.1
Median.....		74.8	90.9	76.7	89.2
VII B.....	1	80.5	83.0	72.1	79.3
A.....	3	70.5	88.5	76.0	85.0
B.....	10	71.7	83.6	76.3	86.4
B.....	11	90.4	94.2	77.3	83.7
B.....	13	66.9	86.7	75.0	76.5
B.....	8	62.0	70.0	66.2	75.0
A.....	5	60.0	72.5	70.0	70.0
Median.....		69.8	85.1	74.0	80.0

TABLE 126.—Median accuracy for each grade of 14 schools tested in San Francisco (Courtis tests)—Continued.

Grades.	School.	Addi- tion.	Subtrac- tion.	Multipli- cation.	Divi- sion.
VIB.....	2	87.0	91.0	84.0	84.0
B.....	12	81.3	86.3	88.6	84.2
.....	7	78.8	91.7	83.3	95.0
B.....	14	75.0	83.7	70.2	91.3
B.....	9	73.6	83.0	77.0	90.0
A.....	12	73.0	83.7	82.5	88.1
A.....	14	72.3	85.0	87.5	81.6
B.....	6	68.5	80.9	73.3	82.5
A.....	4	56.4	76.8	70.3	80.8
Median.....		74.2	84.3	78.8	84.8
VB.....	3	88.8	80.0	69.4	67.0
B.....	10	86.3	89.2	85.4	100.0
B.....	8	83.0	85.5	82.8	67.0
A.....	11	65.8	81.9	69.4	47.8
B.....	4	65.5	83.6	58.6	59.8
.....	5	69.0	62.5	51.4	38.4
A.....	13	53.0	79.3	52.8	26.6
Median.....		73.3	82.6	66.9	57.0

(c) Comparison of San Francisco with Courtis standards for speed and accuracy.

These statements concerning accuracy are, of course, without much meaning until compared with accuracy in other cities. Table 127 makes such comparisons with the Courtis standard scores. By a "Courtis standard score" is meant the median score of many thousand school children from various parts of the country as determined by Dr. Courtis. It is the median of all the children that have taken the test in a given grade up to the time of publication. The first column of the table contains the number of problems a grade should attempt, according to Dr. Courtis. The second column contains the number of problems that the children of San Francisco did attempt. The third column contains the per cent of the problems attempted that the grades solved correctly. The fourth column contains the number of problems the grade solved correctly. All these figures give the median number for the grades. Thus, in addition, Grade VIII should attempt 12 problems. It did attempt 11.98, and of these it solved correctly 74.8 per cent or nine problems.

TABLE 127.—Comparison of median speed and accuracy in San Francisco with Courts standards.

ADDITION.				
Grades.	Court's speed.	San Francisco speed.	Per cent of accuracy, San Francisco.	Number of problems correct, San Francisco.
VIII.....	12	11.93	74.80	9.9
VII.....	11	9.77	69.82	7.6
VI.....	9	10.33	74.12	7.4
V.....	7	8.21	73.30	5.7
SUBTRACTION.				
VIII.....	12	13.90	90.87	12.6
VII.....	11	12.57	85.15	11.0
VI.....	10	11.40	84.27	9.3
V.....	8	9.18	82.62	7.4
MULTIPLICATION.				
VIII.....	11	10.54	70.70	8.4
VII.....	10	9.15	74.07	6.7
VI.....	9	8.83	78.77	6.6
V.....	7	6.80	66.94	4.9
DIVISION.				
VIII.....	11	9.62	89.20	8.9
VII.....	10	8.15	80.34	6.4
VI.....	8	7.67	74.79	6.0
V.....	6	4.76	57.08	3.9

(d) Comparison of San Francisco with other cities for accuracy.—Table 128 compares San Francisco with several other cities for accuracy.

TABLE 128.—Results of Courtis tests in various places, San Francisco included—Per cent of accuracy.¹

Grade	General, ² February, 1914.	General, ² June, 1914.	General, ² June, 1915.	SAN FRANCISCO.	Twenty Kansas cities, May, 1915.	Twenty Kansas cities, January, 1915.	Detroit, January, 1915.	Detroit, May, 1915.	Salt Lake City, May, 1915.	Kansas City, ³ April, 1915.	Indiana, 8,772 children, May, 1915.	Iowa, 11,800 children, June, 1915.	Boston, May, 1915.	San Francisco's rank.
ADDITION.														
VIII.....	58	72	70	75	75	65	66	78	80	.....	64	72	77	4
VII.....	53	65	63	70	67	63	59	78	78	71	60	70	75	5
VI.....	55	64	64	74	65	59	55	73	81	66	59	64	74	3
V.....	55	59	57	73	61	52	53	68	57	62	58	63	71	1
SUBTRACTION.														
VIII.....	72	80	84	91	80	80	77	92	83	.....	79	87	88	2
VII.....	76	76	84	85	83	77	75	88	87	82	78	83	86	4
VI.....	68	72	80	84	81	72	70	85	92	75	71	81	86	4
V.....	60	73	72	83	75	63	60	84	60	60	70	78	83	3
MULTIPLICATION.														
VIII.....	67	72	80	77	82	77	71	85	77	.....	82	87	8	
VII.....	62	70	78	74	78	74	62	82	82	77	.....	79	80	6
VI.....	62	68	74	70	77	68	65	81	67	73	.....	76	77	3
V.....	43	63	66	67	69	57	59	79	65	67	.....	74	75	5
DIVISION.														
VIII.....	68	85	88	80	92	87	85	97	92	.....	92	91	6	
VII.....	76	80	83	80	87	81	82	85	88	90	.....	88	89	10
VI.....	72	87	80	75	84	71	69	86	82	84	.....	84	85	9
V.....	52	61	69	57	68	52	55	81	68	74	.....	79	80	9

¹ The data of the 20 Kansas cities are taken from studies made by Prof. W. S. Monroe and reported in his publication entitled "A Report of the use of the Courtis Standard Research Tests in Arithmetic in Twenty-four Cities."

All other data, except that of San Francisco, were taken from the figures of Mr. S. A. Courtis, as reported by Prof. George Melcher in Bulletin No. 1 of the Bureau of Research and Efficiency, Kansas City, Mo., Public Schools, 1916.

The table should be read thus: In addition the median accuracy of the eighth grade, "General," February, 1914, was 58 per cent; "General," June, 1914, 72 per cent; San Francisco, 75 per cent, and so on across the line for eighth grade in addition. The same method should be used for all the grades and operations.

² Derived from the tabulation of results from many schools in different cities and States.

³ Kansas City has only seven grades in its elementary schools.

From a study of Table 128 these facts become apparent:

1. In a majority of cases San Francisco children were more accurate than the thousands of children reported by Dr. Courtis under the head "General."

2. In every case except seventh grade division, San Francisco children were more accurate than January tests of other cities reported in Table 128. As the San Francisco tests were given in February, this fact becomes very significant, since the various grades in the respective cities had reached practically the same stage of progress.

3. In addition San Francisco ranks low in seventh and eighth grades, and high in the fifth and sixth. There is very little increase in accuracy as the grades are ascended. A marked increase in each successive grade ought to be expected.

4. In subtraction San Francisco ranks high, and there is a steady increase in accuracy as the grades are ascended.

5. In multiplication San Francisco becomes a median city in the fifth and eighth grades, falls below in the seventh; and above in the sixth. There is no increase of efficiency after the sixth grade. In common with the other studies, all percentages in multiplication are too low.

6. In division there is a marked increase in accuracy as the grades are ascended. However, San Francisco makes her poorest showing in division.

7. The eighth grade ranks behind the median of all cities in addition and division, with the median in multiplication, and ahead in subtraction.

8. The seventh grade is behind the median for all cities in every operation.

9. The sixth grade ranks ahead of the general median in all operations except division.

10. The fifth grade ranks far ahead of the general median in addition and subtraction, with the median in multiplication, and far behind in division.

It is very difficult to give the precise per cent of accuracy to which the school can afford to train its classes as groups. The Curtis standards hold forth 100 per cent as the goal, but the author himself admits that it is impossible to train all children to reach it. We believe, however, that San Francisco children can be profitably trained to reach a higher percentage of accuracy in solving problems than they exhibited, for this reason: In Table 128 it may be noticed that Boston children, as a rule, did not make as good showing in tests given in January, 1915, as did the San Francisco children in February, 1916; but after they were drilled until May they made a marvelous increase in accuracy, going far beyond San Francisco's showing in most cases. This increase was brought about in a comparatively short time, and there is reason to believe with no unreasonable amount of drill. While it is true that San Francisco children already make a good showing in accuracy when compared with other cities, yet we are of the opinion that they can and should make a much better showing.

Twenty Kansas cities also made a good showing in some ways, but it is not known whether they were drilled or not.

3. *Variability.*—(a) *Speed.*—Thus far each grade, school, etc., has been treated as though the children were all represented accurately

by the medians. But inside each group there are variations, and these variations are by no means alike in the different cases. It is of considerable importance in arithmetic class work to know how closely the children progress together. For this reason the following study in variability has been made. It gives only figures for San Francisco, because no figures for comparison could be found in other surveys. Such figures do appear in the Indiana cities and Kansas surveys, but the units for figuring variability were not the same as those used here.

Table 129 shows the variability in speed of the four grades in the four operations. For each grade is given the median of problems attempted and finished, quartiles 1 and 3, the variability,² and the per cent of variability.³

TABLE 129.—Variations in speed of San Francisco children in the Courtis tests.

ADDITION.					
Grades.	Median.	Quartile 1.	Quartile 3.	Variation.	Per cent of variability.
VIII.....	11.08	9.65	14.35	2.35	19.8
VII.....	9.77	7.63	10.92	1.65	16.8
VI.....	10.33	8.66	11.89	1.61	16.0
V.....	8.21	6.17	9.25	1.54	18.7
SUBTRACTION.					
VIII.....	13.93	11.26	17.12	2.93	21.0
VII.....	12.57	10.51	14.12	1.81	14.4
VI.....	11.40	9.08	13.39	1.86	16.0
V.....	9.18	7.29	10.42	1.57	17.0
MULTIPLICATION.					
VIII.....	10.54	8.94	11.43	1.25	13
VII.....	9.15	7.57	9.88	1.16	13
VI.....	8.83	7.29	9.58	1.19	13
V.....	6.80	5.59	7.27	.84	13
DIVISION.					
VIII.....	9.02	7.45	11.57	2.06	26
VII.....	8.15	6.43	9.00	1.29	16
VI.....	7.67	6.67	8.58	.90	16
V.....	4.70	3.13	5.59	1.23	21

(b) Accuracy.—Table 130 shows the per cent of variability in accuracy of the four grades in the four operations. For each grade is given the median, quartiles 1 and 3, the variability, and per cent of variability.

¹ By "quartile" is meant the point in a series above which or below which one-fourth of the pupils fail. It is the median of the upper half of a series or of the lower half of a series. In referring to the upper half the point above which one-fourth of the cases fall is called the upper or third quartile. In referring to the lower half of cases, the point below which one-fourth of the cases fall is called the first quartile.

² The "variability" is found by taking one-half the difference between the quartiles; it is thus the average variability of the quartiles from the median.

³ The "per cent of variability" is found by dividing the variability by the median.

It is seen that the greatest variability is in Grade V in all operations. In addition, multiplication, and division we could reasonably expect the variability of Grade VII to be less than Grade VI, which is not true.

TABLE 130.—Variations in accuracy of San Francisco children in the Curtis tests.

ADDITION.					
Grades.	Median.	Quartile 1.	Quartile 3.	Variability.	Per cent of variability.
VIII.....	74.80	62.40	86.5	12.00	16.1
VII.....	69.82	55.30	85.2	15.00	21.4
VI.....	74.12	58.08	86.2	13.70	18.4
V.....	73.30	54.90	80.3	17.20	23.4
SUBTRACTION.					
VIII.....	90.87	80.34	99.57	9.61	10.6
VII.....	85.15	72.30	97.03	12.36	14.4
VI.....	84.27	70.91	97.74	13.40	15.9
V.....	82.62	63.24	96.50	17.63	21.3
MULTIPLICATION.					
VIII.....	76.70	63.50	88.90	12.70	16.1
VII.....	74.07	60.40	86.27	12.93	17.4
VI.....	78.77	64.24	90.50	13.13	16.7
V.....	66.94	50.15	85.83	17.84	26.7
DIVISION.					
VIII.....	80.20	77.10	100.00	11.40	12.9
VII.....	80.34	61.67	100.00	19.16	23.9
VI.....	74.79	67.82	100.00	16.09	21.5
V.....	57.08	31.36	87.25	27.94	48.9

4. Conclusions on Curtis test results.

On the basis of the findings of the foregoing study, and assuming the validity of the standards which have been developed by the studies in other cities, it appears:

1. That accuracy should be emphasized more and speed somewhat less in teaching the fundamental operations in San Francisco.
2. That the seventh grade in particular needs drill in accuracy.
3. That accuracy is being emphasized probably enough at the present time in the sixth grade, except in division.
4. That certain grades need special drills in certain fundamentals. These are indicated as being behind the general median above.
5. That drill in addition, multiplication, and division is needed far more than in subtraction.

FINDINGS OF STONE TEST (FOR REASONING).

1. *Attempts.*—The Stone test has not been so widely used as the Curtis tests; consequently it is not possible to give so many comparisons as in the preceding section.

For a description of this test, see p. 251.

Table 131 shows the distribution of attempts for the Stone test. It should be noted that the results here represent the scores as computed according to the weighted values of correct answers, and not number of problems. The first horizontal line represents the score. The lines below it represent Grades VIII, VII, VI, and V, respectively. For example, one child in Grade VIII made a score of 2, etc. From the median column at the right it will be noted that the median score for Grade VIII is 9.6. This means that out of 228 pupils 114 pupils tried a sufficient number of problems to get a score of more than 9.6, and that 114 pupils out of the same grade tried a smaller number than the first 114 and got less than a score of 9.6. A similar meaning is to be attached to the median in each of the other grades. Note that Grade VII falls below Grade VI and that Grade V is relatively much lower than the other grades.

Table 132 gives the same scores on a percentage basis.

TABLE 131.—Distribution table for attempts of San Francisco children in the Stone tests.

Stone reasoning test.

Grades.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	To- tal.	Me- dian.
VIII.....			1		5	11	26	10	40	33	8	33	4	31	4	13		9	228	9.6
VII.....				4	9	30	72	14	40	20	16	21	10	16	2	9	1	12	276	7.22
VI.....				2	8	38	49	13	39	26	23	19	6	21		9		9	262	8.54
V.....	7	13	28	35	43	76	45	3	23	9	6	2	4	3		3	2		300	8.34

TABLE 132.—Percentage of attempts—Stone test.

(Comparisons inside San Francisco.)

Grades.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	To- tal.	Me- dian.
VIII.....			0.4		2.2	4.8	11.4	4.3	17.6	14.6	3.5	14.5	1.7	13.6	1.7	5.7		3.9	99.8	9.6
VII.....				1.4	3.3	10.9	26.1	5.1	14.5	7.3	5.8	7.6	3.7	5.8	.7	3.3	0.4	4.3	101.0	7.22
VI.....				.8	3.1	14.5	18.7	4.9	14.9	9.9	8.8	7.2	2.3	8.0		3.4		3.4	99.9	8.54
V.....	2.3	4.3	8.7	11.7	14.3	25.3	15.0	1.0	7.7	3.0	2.0	.7	1.3	1.0		1.0	.7		100.0	8.34

2. Accuracy.—(a) Absolute figures.—Table 133 presents the facts regarding the number of examples correctly worked in the Stone tests—that is, the number of “rights.” To illustrate, in Grade VIII 19 pupils solved enough examples correctly to receive a score of 3. In estimating scores, fractions less than five-tenths were dropped, those above five-tenths were added to the score, or a score of 6.5 was called 7, etc. Table 134 gives the same scores on a percentage basis.

A striking thing about this table is the number of pupils who failed to solve a single problem correctly. This is especially noteworthy in Grades V, VI, and VII. There is a gradual increase in the ability of

pupils as they advance through the grades, but the median of Grade VI is practically the same as that of Grade VII.

The facts of Table 134 are shown also in Figure 67.

TABLE 133.—Distribution for number of problems solved correctly by San Francisco children in the Stone reasoning tests.

Grades.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	Me- dian
VIII.....	1	3	7	19	23	30	39	21	42	18	11	5	3	1	2		1		228	6.80
VII.....	10	9	21	22	47	65	47	23	18	4	2	3	2	2	1				276	5.40
VI.....	10	24	34	39	46	48	29	14	9	6									262	5.62
V.....	61	48	48	62	46	21	4	5	2	2	1								300	2.88
Total.....	82	84	110	142	162	164	119	65	71	30	14	10	5	4	3		1		1,066	

TABLE 134.—Percentage for each score, based on number of problems solved correctly by San Francisco children—Stone tests.

(Comparisons inside San Francisco.)

Grades.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	To- tal.	Me- dian.
VIII.....	0.4	1.3	3.1	8.3	10.1	13.2	17.1	10.1	18.4	7.9	4.8	2.2	1.3	0.4	0.8		0.4		99.8	6.8
VII.....	3.6	3.3	7.4	8.0	17.0	21.6	17.0	8.3	6.5	1.5		1.1							100.0	5.4
VI.....	3.8	9.2	13.0	14.9	17.0	18.3	11.1	5.4	3.4	2.3									100.2	5.5
V.....	20.3	16.0	16.0	20.7	15.3	7.0	1.3	1.7	0.7	0.3									100.0	2.88

Accurate comparison with other cities on reasoning is very difficult, because large numbers of pupils put down only the answers to the problems. This prevented any possibility of giving some credit on problems reasoned correctly but not figured accurately, which credit may have been allowed in some other cities. With this caution in mind on the basis of the scores actually allowed in San Francisco, the results appear thus:

1. If Grades V to VIII are combined for San Francisco, the city comes next to the bottom two in Stone's list of results for sixth grade in 26 cities.
2. If Grade V is dropped in San Francisco, the remaining three grades combined only equal the eighth from the bottom in Stone's list.
3. If sixth grades only are considered, San Francisco is next to the bottom of Stone's list. It is also much below Bridgeport, Conn., as reported in that survey.

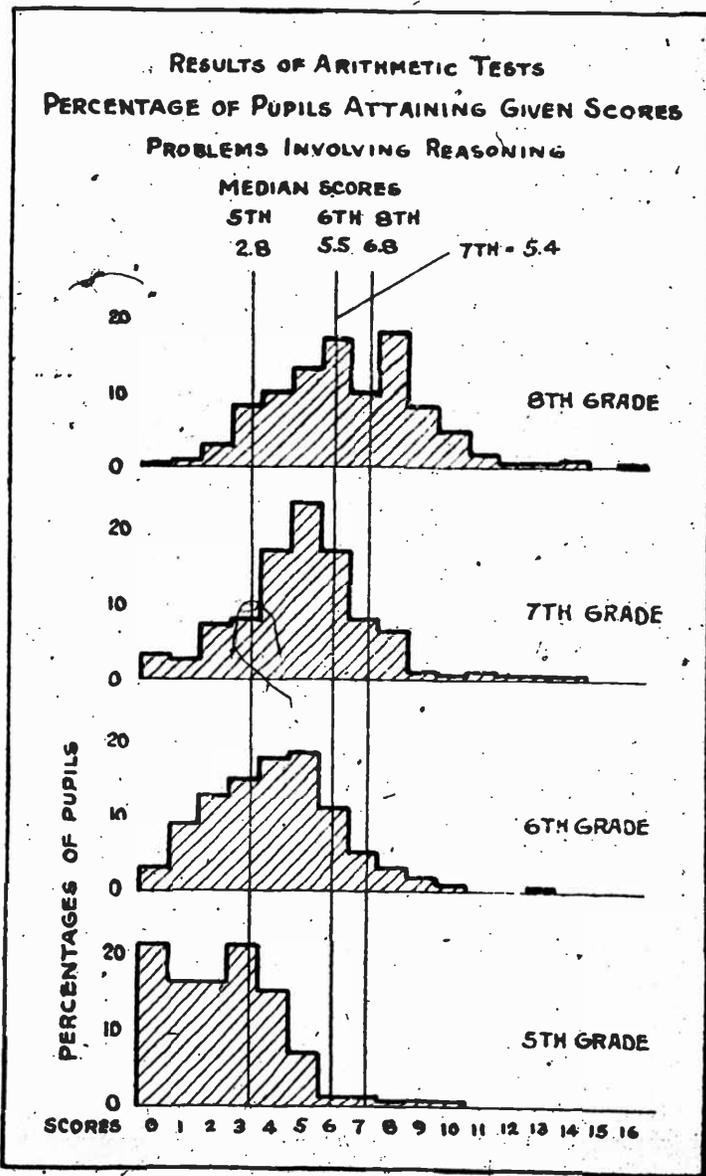


FIGURE 7.—The same problems in arithmetic involving reasoning were given to pupils in grades five, six, seven, and eight. Nevertheless, the median score for the seventh grades tested (5.4) was lower than that for the sixth grades (5.5). A striking number of pupils failed to solve a single problem correctly in 15 minutes, as shown in left-hand vertical column over score "0."

Table 135 gives a comparison of San Francisco with other cities in accuracy on the Stone tests, for all cities about which data on Grades V to VIII were available. The Roman numerals represent grades, and the Arabic numerals are the median scores achieved by the grades.

TABLE 135.—Comparison of San Francisco with other cities in accuracy—Stone test, median scores.

City.	VIII.	VII.	VI.	V.
Salt Lake City.....	10.5	8.6	6.4	2.1
Butte.....	7.7	5.8	3.9	2.1
San Francisco.....	6.8	5.4	4.5	2.2

From this table it seems probable that San Francisco children do not reason so well as do those of Salt Lake City. Grades V and VI are a little better than the corresponding grades in Butte, but the reverse is true of Grades VII and VIII. It is to be noticed that the San Francisco children make less progress in their power to reason in arithmetic as they advance in the grades, than do the children of either Salt Lake City or Butte. In Salt Lake City the increase in the achievement of Grade VIII over Grade V is 184 per cent; in Butte, 250 per cent, in San Francisco, only 138 per cent. In this connection it is to be noted that San Francisco is only average in Grade V to start with.

CONCLUSION.

Allowing for all probable differences in scoring, it seems entirely likely that the San Francisco schools should give much more emphasis to problems in arithmetic whose solution demands accurate reasoning with numerical data.

SUMMARY OF CONCLUSIONS.

SUGGESTED BY TESTS OF THE ACHIEVEMENTS OF PUPILS.

Penmanship.

1. So far as form alone is concerned, the writing of the San Francisco children is good.
2. Whether this excellence is attained at the sacrifice of speed or in company with the attainment of a satisfactory speed is not established by these tests.
3. The particular type of progress from grade to grade should be studied critically, since it deviates considerably from the practice in other cities.
4. Variability among schools should also be studied carefully.

Spelling.

5. The city as a whole ranks considerably above the standard average for a large number of cities.

6. Girls seem to spell uniformly better than boys.
7. Further tests should be made in all the schools to determine the causes of the wide variations in achievement.

Reading.

8. There is need of standardizing the work in reading for the system as a whole, so as to secure a more definite progress in ability from grade to grade.
9. A reasonable degree of uniformity in progress among the different schools should be sought, to facilitate the transfer and promotion of pupils.
10. Reading tests on a much larger scale should be conducted in order to determine standards and to assist in eliminating extreme variations.

Arithmetic.

11. The San Francisco children made an unusually good showing in speed, but did not do so well in accuracy, and did not show the usual increases in accuracy with progress through the grades.
12. More emphasis should be placed on accuracy in all phases of arithmetic work.
13. A study should be made to determine the causes for the apparent inferiority of the seventh grades in several of the tests.
14. A study should be made to determine the causes of the extreme variations in ability among the several schools and grades.
15. A study should be made to determine the possibility of excusing certain individual pupils from unnecessary drill.
16. More emphasis is needed on certain fundamental operations, and on problems involving reasoning.

Chapter VIII.

THE HIGH SCHOOLS.

The public high school in America has had a remarkable development, not only in numbers, size, and magnificence of material equipment, but in variety of types which have been evolved in the effort to meet conditions as they have existed in different localities or as they have changed with the passing of the years. A simple catalogue of the more important of these types of secondary schools serves to illustrate the extent of the development which has taken place:

Types of organization:

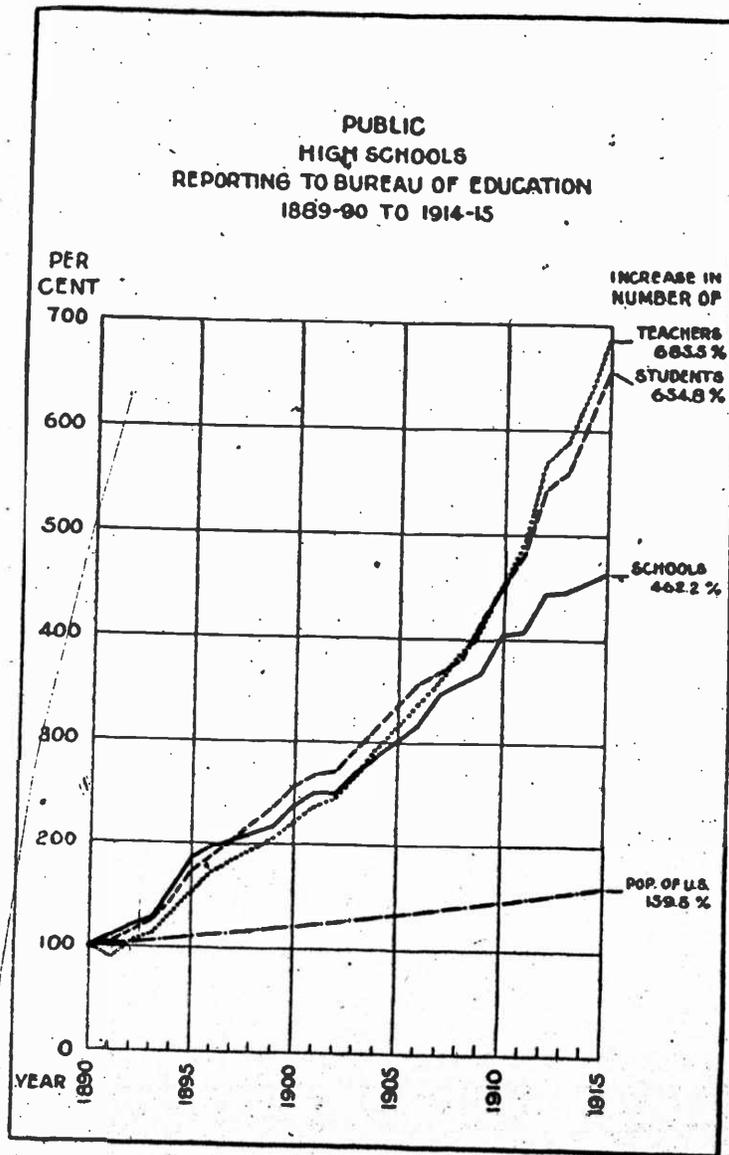
Four years, based on eight years elementary school.
Six years, based on six years elementary school.
Junior high school, three years.
Senior high school, three years.
Township high school.
County high school.
Evening.
Continuation.
Part time, cooperative.
Technicai.
Vocational.
Cosmopolitan.

Types of curriculum:

General.
College preparatory.
Classical.
Scientific.
Literary.
Professional.
Commercial.
Agricultural.
Manual training, mechanic arts, technical.
Industrial.
Homemaking, home economics, household arts.
Normal.

The development of high schools in numbers and size is suggested by Table 135a and figure 67a. During the decade from 1890 to 1900, while the total population of continental United States increased 20.7 per cent, Table 135b, the number of high schools reporting to the Bureau of Education increased 137.7 per cent, the number of high-school teachers increased 123.4 per cent, and the number of high-school students increased 155.8 per cent. These rates of increase were accelerated somewhat during the succeeding decade, until about 1908, when a period of even more rapid expansion, especially in numbers of teachers and students, began. This rapid expansion is still effective, so far as the latest available figures show.

In 1915, while the total population had increased to 159.5 per cent of the population in 1890, the number of high schools was 462.2 per



cent of the number in 1890, the number of teachers was 685.5 per cent, and the number of high-school students was 654.8 per cent.

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TABLE 135a.—Development of public high schools reporting to the United States Bureau of Education, 1889-90 to 1914-15.¹

Year reported.	Schools.		Teachers.		Students.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1889-90.....	2,526	100.0	9,120	100.0	202,903	100.0
1890-91.....	2,771	109.7	8,250	90.7	211,596	104.3
1891-92.....	3,035	120.2	9,564	104.9	239,556	118.0
1892-93.....	3,218	127.4	10,141	111.2	251,023	123.2
1893-94.....	3,964	156.9	12,120	132.9	289,274	142.6
1894-95.....	4,712	186.5	14,122	154.8	350,099	172.6
1895-96.....	4,974	196.9	15,700	172.1	380,493	187.6
1896-97.....	5,109	202.3	16,809	184.3	409,433	201.7
1897-98.....	5,315	210.4	17,941	196.7	449,600	221.6
1898-99.....	5,495	217.5	18,718	205.2	476,227	234.6
1899-1900.....	6,005	237.7	20,372	223.4	519,251	255.8
1900-1901.....	6,318	250.1	21,778	238.8	541,730	266.9
1901-2.....	6,392	253.1	22,415	245.8	550,011	271.2
1902-3.....	6,830	270.2	24,340	266.9	592,213	291.6
1903-4.....	7,230	286.2	26,760	293.4	635,808	313.3
1904-5.....	7,576	299.9	28,461	312.1	679,702	334.8
1905-6.....	8,031	317.9	30,844	338.2	722,692	356.1
1906-7.....	8,804	348.5	32,774	359.4	751,081	370.1
1907-8.....	8,960	354.7	33,399	365.1	770,456	379.6
1908-9.....	9,317	368.8	37,491	411.1	841,273	414.6
1909-10.....	10,213	404.3	41,667	456.9	915,061	450.9
1910-11.....	10,234	405.1	45,167	495.3	984,677	485.2
1911-12.....	11,224	444.3	51,853	568.6	1,103,360	544.6
1912-13.....	11,277	446.4	53,738	589.2	1,134,771	559.1
1913-14.....	11,515	455.9	57,909	633.9	1,213,804	600.8
1914-15.....	11,074	438.2	62,510	685.5	1,328,984	654.8

¹ See Report of the Commissioner of Education for the year ending June 30, 1910, Vol. II, p. 449.

TABLE 135b.—Increase in total population of continental United States from 1890 to 1915.

Census year.	Number.	Per cent.
1890.....	62,947,714	100.0
1900.....	75,991,575	120.1
1910.....	91,972,268	146.2
1915*.....	100,399,318	159.6

* Estimated.

NEED OF ADJUSTMENT TO NEW CONDITIONS.

These figures tell only part of the story of the development of secondary education. The expansion of high-school facilities and the introduction of varied courses of study have not kept pace with the changes in the social, economic, and occupational life of the people. In its beginnings the high school was almost exclusively a college preparatory school for the narrowly limited number of persons who were expected to enter the higher professional callings. The organization and the curriculum were developed to meet the specific purpose of preparation for college and professional school, and the high school passed through a long period during which its entire machinery of aims and methods was practically prescribed by the assumed necessity of conformity with college-entrance requirements.

Within a few short decades, however, a new and more democratic ideal has emerged, and now the attainment of a high-school education by every boy and girl has been acclaimed as a reasonable object of endeavor, and educational writers frequently refer to the high school as the "people's college" as an assured fact.

It is important to note that if high-school advantages are to be participated in by all boys and girls there must be a complete break with the tradition that the satisfaction of college-entrance requirements will adequately meet the situation, or that any one course of instruction for all students will suffice. It must be recognized clearly that for many years to come only a small fraction of high-school students will enter college. For these the best possible preparation for college must continue to be provided, and the requisite expenditure of time and energy and means for this purpose must not in the least be abated.

For the remaining overwhelming majority of boys and girls it must be accepted that the completion of the high-school course represents the final limit of attendance upon day school, under existing conditions. The question as to the wisdom of attempting to change these conditions, so that every individual may reasonably expect to receive a college education, is not involved in the acceptance of the fact that conditions as they are determine immediate procedure.

The high school, then, should address itself to the task of discovering the ways in which it may render the maximum possible assistance to all boys and girls in their efforts to prepare for useful and satisfying careers in many different directions. The problems of providing the best possible education for the boy who is to enter a steel plant, or a wholesale commission house, or the steam or electric railroad service, or the grocery business; or for a girl who is to enter the department store or factory, or manage an office, or become a home maker have no less claim upon the attention of the school than problems of providing the best possible education for the young people who will enter college. The former problems are far more complicated, because of the great variety of uses that will be made of the training given; their solution presents a much more formidable task, because of the larger number of individuals involved.

Students of education are far from being in agreement as to the significance of recent tendencies; or as to the validity of conclusions derived from the numerous experiments now under way. Apparently there is as yet no accepted "best" type of high school. Secondary education is passing through a stage of rapid evolution, and many of the factors which will determine the form and status of the ultimate institution are still but imperfectly defined and understood.

Upon every city having the population and the wealth possessed by San Francisco falls the responsibility of leadership in the scien-

tific and aggressive study of the problems peculiar to the high-school period. That San Francisco has not discharged her full duty in this respect appears from the discussion in the following pages.

IMPORTANT FEATURES OF THE SUCCESSFUL HIGH SCHOOL.

As a statement of the goal toward which all efforts for the improvement of the high schools should consistently strive, a brief outline of the important features of the successful high school is offered. Every first-class high school in San Francisco, or elsewhere, should meet the following conditions:

(1) A well-built, scientifically arranged, thoroughly equipped, thoroughly modernized structure, sufficient in size and appointments, not only to accommodate all the pupils who are at present attending the school, but all in the immediate district who ought to be attending.

(2) The building should contain, in addition to the usual classrooms, offices, and the like, provision for manual training, household arts, equipment and supplies for stenography, typewriting, book-keeping, and other commercial work; laboratories well located, well lighted, well ventilated, and equipped with modern apparatus; a gymnasium sufficient in size to accommodate both evening and day school pupils and thoroughly supplied with up-to-date apparatus for all kinds of correctional work; a lunch room sufficient in size and equipment to accommodate in two or three sections as many pupils as the completed structure is intended to care for; an assembly hall equipped with stage and scenery sufficient to make it possible for the school itself or the district in which the school is located to give dramatic, musical, and other public programs for the sake of social life and community expression.

(3) Courses of study of such variety and strength as to meet the educational needs of young people who are to be intelligent, independent citizens in a great democratic State.

(4) Such a number of teachers of the standards of preparation similar to those required by the California State law that the total enrollment of the school when divided by the number of teachers will be under 30. The principal of the school should be expected to take an active part in the selection, promotion, and discharge of his teachers, and in the direction of their professional growth in service, subject, of course, to the approval of the superintendent of schools, who should make all recommendations to the board for the appointment, promotion, and discharge of teachers, as recommended in Chapter III of this report.

(5) The principal should be provided with office equipment and office help sufficient in quantity to make it unnecessary for his time

to be spent in clerical details but rather in strictly professional service.

(6) The principal may act as a dean of men with all the functions attributed to such an official, otherwise a capable assistant should be employed for this work. There should be a dean of women, a director of gymnasium work, a director of athletics, and a director of music, including band and orchestra.

(7) Most important of all is that superintendent and principal should be capable of adequate inspiring leadership, and should have the necessary freedom and support, professional and financial.

COMPARISON WITH OTHER CITIES.

Figures presented in Chapter II¹ show that, in comparison with other cities, San Francisco has not shared proportionately in the movement for the expansion of public high-school facilities which is characteristic of the country as a whole. Only one of the 10 cities in the list, Table 15, ranks lower than San Francisco in number of high-school pupils per 1,000 of population. Even with a relatively small number of elementary-school pupils per 1,000 of population, the number of high-school pupils per 1,000 elementary-school pupils is low—only two of the 10 cities rank lower, Table 16.

It has not been possible to determine with certainty what are the underlying causes of this comparative neglect of public high-school education in San Francisco. While the survey commission was unable to inquire fully into the activities of secondary schools other than public, sufficient information was secured to suggest that, compared with other cities, San Francisco probably has more than her proportionate share of students enrolled in such schools. To a certain extent a situation of this character undoubtedly reflects a feeling on the part of many parents that the opportunities and facilities of the public high schools are either less adequate, less accessible, or inferior to those afforded by private agencies. In any event, it is highly desirable that further study of this situation be made, in its relation to the relatively inadequate development of public high schools in San Francisco.

Problems relating to the organization and administration of the high schools in San Francisco are discussed more fully in Chapter III of this report. We proceed now to a discussion of the schools themselves.

LOCATION OF HIGH SCHOOLS.

As indicated in the discussion in connection with Figure 17, page 80, an examination of the map and a study of the congested centers

¹ See page 23.

of population in the city show that the high schools are not located so as to accommodate to the best advantage the high-school population of the city. The five high schools are located within an area inclosed by a circle of approximately 2 miles diameter, in the central portion of the city, although the land area of the city embraces 43 square miles.

Apparently one of the objects in view in placing the high schools thus centrally and near-together was to give the student a choice among the advantages offered. Those children who reside within a reasonable distance of the center of this area are able to exercise this privilege. Theoretically the same choice is open to all children, but the distances to be traversed and the difficulties involved in getting about in certain directions because of topographic features operate to prevent the exercise of such choice.

Not only are many thousands of children thus practically denied a choice of high-school work, but there are large portions of San Francisco's population that have no high-school accommodations at all within convenient reach. The congested centers of Richmond and North Beach, for example, are far away from and have no means of easy and convenient access to any public high school. The same may be said of the larger, though less thickly settled, section of the city lying south of an east and west line drawn through one of the Twin Peaks.

In the Polytechnic High School San Francisco is attempting to develop certain special types of courses of study, and yet the success of this experiment has been jeopardized by the very site selected. With Golden Gate Park on one side, and the expanse of unoccupied territory surrounding Twin Peaks on the other, it would have been difficult to locate the school within walking distance of a smaller number of homes.¹

EVENING SCHOOL IN EACH HIGH SCHOOL.

To enable the city to comply fully with the evident intent of the California law on the subject of evening schools, it is recommended that evening schools be opened in all of the high-school buildings in the city and equipment and provision in faculty, library, and laboratory be made to care for in a satisfactory way all who may elect to come and choose their work from the curriculum provided. Curricula in such evening schools should provide courses in English and citizenship for foreigners, cooking, sewing, mechanical drawing, stenography, typewriting, bookkeeping, penmanship, arithmetic, printing, and such other subjects as the industries of the city of San Francisco seem to demand. For further discussion of evening schools see Chapter XV.

¹ See also the discussion of distribution of school facilities, ch. 2, p. 29.

BUILDINGS.

The location of the present buildings can not well be changed. The High School of Commerce needs to have its present building remodeled and modernized, and an addition built on the adjoining lot, on a part of which there are now two temporary wooden buildings in use. The remodeling and modernizing of this building should provide for up-to-date lighting and heating, better ventilation, and a complete reorganization and modernization of the plumbing. In all the high-school buildings in which such conditions are not found, like changes should be made at once.

The new building for the High School of Commerce should have an auditorium large enough to accommodate 1,500 people, a stage and stage equipment for public programs and for use in both the day and evening school. It should have an indoor gymnasium and a lunch room large enough to accommodate this number of students, as well as shops and home economics laboratories.

Equally bad physical conditions were found in the building of the Mission High School. Changes in the present building and a new structure on the adjoining lot are urgently needed here also.

In addition to well-equipped laboratories, gymnasium, auditorium, and lunch room in each high-school building, there should be also a well-equipped library, in charge of which should be a well-trained librarian. Not one of the high schools at present has either a well-equipped library or a librarian. It is quite as necessary that both the library and the librarian be provided for in all of these schools as it is that laboratories, gymnasiums, lunch rooms, auditoriums, and well-equipped teachers shall be provided. The physical necessities and the physical equipment with which a teacher is confronted play a very great part in the success of the product which the school turns out.

In all the high-school buildings where the toilet rooms are located entirely or partially in the basement such changes should be made as to place these accommodations on each floor of the building. The reason for refusing to approve toilet rooms placed in the basement is apparent. Such rooms should be placed where there is light, proper ventilation, proper sanitation, and proper supervision. When placed in the basement they are a constant menace to public health, to the discipline of the school, and to the morals of the children.

The buildings not provided with individual lockers for pupils should have such provision made at once and these lockers placed in the corridors above the basement floor, where they may be supervised and where property belonging to students may be securely protected. The pilfering which goes on under other conditions is

a menace to good citizenship and ought to have no place for development in a public-school building.

As indicated in Chapter V, the placing of lockers in the corridors is not an ideal arrangement, as they should be provided for in special locker rooms which are planned for when the building is laid out.

NEW HIGH SCHOOLS NEEDED.

Since the pupils of secondary school age in North Beach and Richmond have such long distances to go to reach a high school, and since the other high schools are so located that they can scarcely take care of the pupils of secondary age within their own immediate environs, high-school buildings should be constructed in these two suburbs. It is not necessary that these buildings provide at first for more than junior high schools, but it is clear that with the development of population in these suburban sections there will soon be need for senior high-school accommodations.

OFFICE ASSISTANTS AND EQUIPMENT.

All the high schools of the city should be provided with such office equipment that the records of the school may be adequately preserved and available for constant and immediate use, and that all needed clerical work may be done conveniently. There should be a record clerk and a stenographer in each high school having 500 students or more; and certainly a stenographer in each high school numbering fewer than 500 students. Under existing conditions, without clerical assistance of this kind, the principal is obliged to spend much time in keeping records, writing letters, filing papers, and answering and operating the telephone, instead of doing the professional work properly belonging to his office.

With such trained help as has been indicated for all of the buildings, and which is for the most part lacking in the present buildings, it will be possible to keep a card catalogue of all pupils and to know definitely for 10 years following their graduation where they go, what they do, and how the school's impression upon them contributes to their success in life. No school may properly answer the question "Are we contributing the right kind of material to the community?" unless it takes the pains to find out what its students actually do after the school has ceased to direct them.

TEACHERS.

Since California's law requires very high standards for high-school teachers, it may be inferred that the scholastic-preparation of high-school teachers in San Francisco is good. Their experience is extended, and a considerable number of them have been teaching for

30 years and more. The amount of work done by teachers in all high schools, however, measured by the number of periods per day they are busy, is too great unless this represents all the contribution which the teacher makes to the school.

The number of periods of actual classroom instruction a day should usually not exceed five per teacher, and no teacher should be required to teach more than six periods a day. The North Central Association of Colleges and Secondary Schools, representing institutions in 14 States of the Mississippi Valley, refuses to accredit any high school having more than six recitation periods a day for any teacher.

There are classes in all the high schools in San Francisco containing too many students for effective work. The North Central Association recommends 25 students per class as the maximum and maintains that no recitation class should enroll more than 30 students.

In San Francisco, as shown in Table 45, Chapter II, nearly one-half (48.2 per cent) of all the high-school classes reported enrollment of 31 pupils or more, and nearly one-fourth (23.9 per cent) reported enrollment of more than 40 pupils each.

The size of classes should be reduced gradually until the usual maximum average attendance does not exceed 25 pupils per class. Only in exceptional cases should recitation classes be permitted to exceed 30. This policy will undoubtedly lead to improvement in the quality of the school work and to a reduction in the proportion of student failures.

PROFESSIONAL ATTITUDE.

There are indications in all the high schools that proper conditions for the stimulation of professional spirit and professional attitude toward work have not been provided. Teachers report very little extended reading of pedagogical literature or attendance at educational conventions and membership in State or national teachers' associations. There is little or no evidence that groups of teachers engaged in the same kind of work (such as English teachers, science teachers, and so on) are reading the literature of their subject and are attempting to improve their work from month to month and from year to year.

There seems to be a lack of that unity and interest among the high-school teachers necessary for a proper esprit-de corps and the highest success. No indications were found that any effective plan has been devised and put into operation to improve the teachers in service during their probationary period. This is a most serious omission. For the most part, those who have been long in the service appear to be content and static. The assurance of holding their positions against all odds has probably had very much to do

with killing the highest and best kind of professional spirit, as it is apt to do for all except those who work altruistically for the good of their pupils and for the love of their work.

If teachers were encouraged to join the high-school teachers' association of the State or county, the stimulation, encouragement, and sympathetic cooperation which would be thus engendered in the high-school faculty would be very great. It would be greater still if teachers were sent to State and national educational conventions and required to make full reports to their colleagues in meetings held for this purpose. "When the springs of professionalism among the teachers have dried up, the pupils who are to be taught are very likely to be athirst."

The principals, endowed with proper authority, might make of their own faculty meetings, which ought to be held at least once a month during the school year, such a seminar of interest as would certainly, even if slowly, create a desire among members of the faculty to investigate in their own fields the problems confronting them, but which have found more or less complete solution in other large school systems.

One of the best means of arousing the lethargy, deadness, and smug satisfaction among a well-prepared and highly contented faculty is to induce some of the more nimble-minded of the group to begin some kind of experiment to solve a particularly perplexing problem in the school. When this problem has been correctly solved and the principal and the teachers are fairly content with the solution, the teacher who has been instrumental in this experiment should make a complete written presentation of the study to the entire faculty and have one of the newspapers make a write-up of it to show what may be done. This may in turn arouse some one else in the faculty to ask for the privilege of making some experiment in another department and thus a spirit of inquiry which can not fail to foster professional growth will soon pervade the entire school system.

MORE RESPONSIBILITY FOR PRINCIPALS.

The authority of the principal should be final on many things which concern the faculty, the curricula in the school, the professional spirit of the teachers, and the school's community relationships. The schools of San Francisco seem to be defective in this respect. The thing which is most needed among the teachers is big, forceful, unshackled leadership with freedom and vision. That is, assuming that capable leaders have been selected as principals, with broad but clearly defined limits of discretion, responsibility, and authority, the board of education should keep its hands off and leave the principals free within these limits to work out the problems of the schools.

Many of the things referred to as lacking and desirable might easily be secured under leadership of this kind. But principals can exercise neither freedom nor vision when they are conscious of the fact that one member of the board of education has final authority in one matter, a particular committee of the board in another matter, an assistant or deputy superintendent in another, and the superintendent in still another. Such division of authority in details tends to prevent any earnest preparation for leadership and responsibility on the part of principals.

Under existing conditions, it can not be maintained that the principal of a high school in San Francisco has a fair opportunity to work out the progressive ideals which his position as a specialist in secondary education should qualify him to formulate, nor a fair opportunity to exercise the degree of influence in the councils of the school system or the quality of leadership in his own particular field of which he is presumably capable. In these respects the city is practically in the position of expending a sum of money for a special kind of expert service and then declining to receive it.

COURSE OF STUDY.

The course of study is one of the most essential factors in the making of a successful high school. The extent and character of the progress that has been made in secondary education in America during the past few decades is clearly seen by comparing the traditional curriculum, the great bulk of which was made up of Latin, Greek, and mathematics, with the offering of one of the modern cosmopolitan high schools to be found in our larger cities.

As already noted, the aim of the high school in the early days in this country was the comparatively simple one of preparing for entrance upon the work of the classical course in college. To-day the objective sought by the framers of high-school courses of study are varied and complex. To the early simple curriculum have been added from time to time modern languages, natural science, political and social science, fine arts, manual arts, and other subjects, until the range of studies has long since passed far beyond the capacities or needs of any individual pupil.

Since no pupil could take all the subjects offered, some plan had to be devised to arrange them in groups adapted to the capacities and needs of individuals, and designed to accomplish the purposes they may have had in entering school. Thus the high school has passed through several stages with reference to this feature of the course of study: (1) One fixed curriculum, four years in length in its final form, attempted by all students alike; (2) two or more fixed curricula, four years in length, leading to more or less well-defined

goals, one of which must be chosen by the student at the outset; (3) two or more curricula, four years in length, one or more of which may be fixed, but in one or more of which is introduced the principle of choice among certain groups of specified subjects; in each year of the course certain subjects are required of the student, while the remainder of his program is filled out by choosing from among a number of subjects provided in each case; (4) two or more curricula, four years in length, in at least one of which the student is left entirely free to select the studies to be pursued, subject to the approval of an adviser, and limited only by the requirements of carrying a certain minimum number of subjects and of completing a certain number of credits for a diploma; (5) special curricula of less than four years in length, designed to meet certain needs which experience with students has shown to exist.

It is to be noted that the evolution of a great variety of courses of study has been accompanied or, it may be, facilitated, by the development of a number of types of high schools, such as the manual training high school, the commercial high school, and others. Indeed, some educators have maintained that special type schools have been essential to the successful working out of the experiments which have resulted in the present variety of curricula. It is held that the conditions necessary for the development of a new type of curriculum are most easily and surely provided in a separate school.

On the other hand, there is considerable weight of opinion favoring the combination of a number of types of curriculum in one school, in order to extend the range of choice open to the student, after these curricula have thoroughly demonstrated their educational value. This is the view held by the survey commission, as outlined in Chapter III.

TENDENCIES IN SAN FRANCISCO.

There is unmistakable evidence of a trend of development, even though very conservative, in the right direction in San Francisco's dealings with her high schools. With the increase in high-school population, the city has added to the number of high schools until there are now five. In at least three cases, following the practice then prevailing in many American cities and still more or less influential, these schools were planned as type schools, namely, the Girls', the Commercial, and the Polytechnic.

The special typical character of these schools has not always been consistently maintained. In the Girls' High School, for example, it does not appear that the aim has been to develop a school giving special attention to the educational needs of girls and young women, as differentiated from those of boys and young men, but rather

merely to organize a good high school to which only girls are admitted as students. In the country as a whole there has been very little popular demand for a policy of separating the sexes in either elementary or secondary schools. If there exists any justification for a separate public high school for girls, it is to be found in the desirability of providing an institution in which the problems of preparing girls for homemaking, motherhood, and other functions peculiar to womanhood may receive such special attention as is not possible or practicable in the usual coeducational school. In the opinion of the survey commission this justification does not exist.

It may be assumed that preparation for all those functions of life in which men and women participate in common (such as wage-earning, leisure, social intercourse) may be given to boys and girls in the same high school just as effectively as in separate schools. In all cases of special subjects which are sought by one sex only (such as blacksmithing or millinery), or in which it is desirable for any reason that the sexes recite in separate classes, separate recitation classes can be easily provided.

REVISION OF COURSES OF STUDY.

The desirability of modifying the policy of maintaining type high schools was clearly recognized by the board of education, though without special reference to the girls' high school in a report adopted July 2, 1913.¹ In this report the announcement was made (p. 11) that the distinctive features of the existent type high schools are to be abandoned to some extent by gradually introducing into all schools, except where equipment prohibits, as many as possible of the foundational subjects of the first two years, but continuing a certain amount of specialization in each school as heretofore in the third and fourth years. This statement was supplemented by the announcement of an "interlocking system" among the high schools, in accordance with which it was to be made possible for a student to register simultaneously in two schools and thus to participate in the benefits of the opportunity for a wider choice of subjects.

These two provisions constitute a commendable step forward and are evidence of a wise determination to extend the benefits and facilities of the high schools. For financial and other reasons the board has necessarily been very conservative in putting the new policy into execution, and many practical difficulties have obstructed the operation of the interlocking system, so that, in fact, not so much progress has been made as conditions really demand. The interlocking system, so far as its actual operation was observed, can be

¹ Course of Study for the San Francisco High Schools, 1913, Part I.

regarded only as a temporary and inefficient device designed to relieve conditions which should be modified fundamentally.

The result of the study made by the survey commission has been to confirm the opinion that further progress must be made in the reorganization of the high schools along the lines already laid down by the board of education and otherwise to the end that each school shall offer the widest possible choice of studies. As indicated elsewhere in this report, in the discussion of the cosmopolitan high school, this policy is not inconsistent with the plan of allowing to each school a certain degree of specialization or emphasis on certain lines of work, especially in the third and fourth years of the course.

The desirability of organizing one or more junior high schools is discussed elsewhere in this chapter as well as in Chapter III.

UNIFORMITY OF CURRICULA.

Since the young people of high-school age are to live in a democracy, it is vital that the association during their secondary school period should be as similar as possible to the life associations which are to follow the school career. It is for these reasons that, in the construction of the school curricula, we recommend that they shall be substantially uniform in all high schools for the first two years of work, and that no privilege in a curriculum in one school shall be denied a student in another school. At the close of the first two years of such curricula there may be given opportunity, under faculty direction, to pursue with some degree of specialization the lines of work indicated by the particular talent manifested during the first two years.

It is clear that it is not necessary that the curricula in one city shall be identical with the curricula in another city, but that they shall possess a degree of uniformity in the same city seems to be as essential for the high schools as for the elementary schools.

These statements mean that what has been described in San Francisco as "an all-inclusive course of study" should be offered in each of the high schools of San Francisco. It means further, that the high-school district, created under the recommendation of this report, may, in response to the industrial or social or commercial needs of that district, emphasize one phase of the curriculum and minimize another phase of the curriculum, and that in so doing, the curriculum may respond to the greatest and highest need of that particular district and community. Unless the curricula are fairly uniform and unless they are all-inclusive, there is great danger of developing unpleasant class distinctions and stratification of groups and a real social cleavage in the total high-school body of the city.

All such results are regarded as disastrous and antagonistic to the highest welfare of a democratic society.

As indicated in another paragraph, art, in its completest sense, music, dramatics, physical education in its completest sense, the recognition and direction of athletics and social life, should be made as much a part of the real curriculum of the high school as English or science or history.

The high-school life is peculiarly the period of self-expression, and all the activities mentioned and others, which give opportunity under professional direction for self-expression, make their contribution to the highest and best development of the citizen, of the community. Means of self-expression developed out of dramatics, art, music, physical education, and other lines of expression are frequently the avenues along which the most remarkable latent talent among pupils may be developed. It is out of these beginnings during the reticent and often bashful period of adolescence that great talent later recognized by the State and the Nation comes. When we read the early biography of the statesman, the actor, the artist, the musician, and the general, we so frequently find that the talent for these various lines of activity was discovered, developed, and inspired in some measure during the adolescent period of life. How important, then, is it that this great public-school organization should make a serious and continued effort to discover and direct all such latent talents.

Inasmuch as the curricula in actual operation in the high schools of San Francisco do not seem to have been worked out with any special reference to the industrial, commercial, and manufacturing life of the city, it is suggested that in the further development of plans these factors, together with others dominant in the community, shall be carefully considered.

COMMENDABLE FEATURES NOTED.

The report of the board of education of July 2, 1913, referred to above, contains a number of commendable and progressive features in addition to those already pointed out. Of these the following may be noted particularly:

(1) Recognition of the necessity, in planning high-school courses, of providing for a variety of aims on the part of the student body. The plan as announced proposes to meet the needs of (a) pupils who expect to end their schooling with the completion of the high-school course; (b) pupils who are uncertain about further schooling and who wish to defer decision as late as possible; (c) pupils who expect to continue their schooling beyond the high school; (d) pupils who can give no more than one or two years to high-school attendance.

(2) Recognition of the elective principle in planning four-year programs for students. In carrying out this policy the requirements for graduation are outlined in general terms, and include the following:

Prescribed major, the equivalent of one study reciting daily for four years, consisting of three years of English and one year of United States history and civics; 32 hours.

Elective major, the equivalent of one study daily for four years, consisting of four years' work in any single department; 32 hours.

Alternative minor, the equivalent of one study daily for two years, either language or mathematics; 16 hours.

Elective minor, the equivalent of one study daily for two years, consisting of two years' work in any single department; 16 hours.

Elective, the equivalent of two studies daily for four years; 64 hours.

Total, 160 hours, of which at least 40 hours must consist of "advanced subjects."

(3) Arrangement of studies in curricula, or "groups," as suggestions for the assistance of pupils in planning their work to accomplish certain definite ends.

(4) Tentative inauguration of a "continuation plan," by which students are permitted to register for half-day sessions to continue their education while engaged in wage-earning employment during the remainder of the regular school session.

DISTRIBUTION OF FACILITIES.

The program of studies provides seven curricula, or "groups," of which five cover four years of work and meet the requirements for graduation, noted above. Two are special commercial-industrial courses, two years and one year in length. The distribution of these curricula among the five high schools is shown in Table 135c.

TABLE 135c.—Assignment of curricula or "groups" to the high schools.

Curricula.	Com- merce.	Girls'.	Lowell.	Mission	Poly- technic.
A. General (free election).....	A	A	.....	A	A
B. Optional (limited election).....	B	B	B	B	B
C. Occupational (technical, scientific, or commercial).....	C	C	C	C	C
D. College of science, preparatory.....	.....	.....	D	D	.....
E. Inclusive college, preparatory.....	.....	E	E	E	.....
F. Two years commercial-industrial.....	F	.....	.....	F	F
G. One-year commercial-industrial.....	G	.....	.....	G	G

From this table it appears that only two of the seven curricula are offered in all high schools: (1) The optional group, which is "designed to give thorough preparation for life to students who probably will not go to college but who may finally so decide;" (2) the occupational group, which is "designed to give thorough preparation

to students who plan to enter the technical world whether or not through the medium of a college course."

It is definitely implied that a student may prepare for college under the provisions of either of these curricula in any one of the five high schools. Notwithstanding, of the two curricula which are designated as college preparatory, one is offered at two schools only and one at three.

The particular studies or departments in which work may be pursued is determined by the distribution of these departments among the five high schools. Since every student who registers in a four-year course is required to take English, United States history, and civics as a prescribed sequence of studies, these studies are offered in all high schools. The remaining studies, classed as elective majors, are assigned to the schools according to a plan of distribution shown in Table 135d.

TABLE 135d.—Assignment of elective majors to high schools.

Elective majors.	Com- merco.	Girls'.	Lowell.	Mission.	Poly- technic.
1. Latin.....		1	1	1	
2. Greek.....			2		
3. French.....	3	3		3	3
4. German.....	4	4		4	4
5. Spanish.....	5				5
6. History.....		6	6	6	
7. Commercial history.....	7				
8. Mathematics.....		8	8	8	8
9. Natural science.....		9	9	9	9
10. Fine arts.....		10	10		
11. Drafting.....				11	11
12. Mechanical arts.....					12
13. Applied mathematics.....				13	13
14. Industrial chemistry.....				14	14
15. Domestic science.....		15		15	15
16. Applied arts.....		16		16	16
17. Bookkeeping.....	17			17	17
18. Stenography, typewriting.....	18			18	18

1 Sewing.

2 Sewing and cooking.

This table shows that Latin is offered in three schools and Greek in one, while some modern foreign language is offered in four schools; that mathematics and natural science are offered in four schools and fine arts in two only; that mechanical drafting is offered in but two schools, while mechanical shop subjects are restricted to one; that cooking and sewing are offered in one school and sewing in two others; that bookkeeping and stenography and typewriting may be had in two schools only.

NEEDED CHANGES IN CURRICULA.

The aims which have been set up by the board of education in the course of study referred to are commendable, so far as they go, and the changes most needed are those which will make the schools more

effective in realizing these aims. More liberal financial support of high schools, which will make possible adequate teaching forces and suitable equipment for the reorganized courses of study, is a necessary corollary of the suggestions made herein. The financial problem is discussed further in Chapter IV.

The changes needed, so far as they relate to the course of study, may be summarized as follows:

(1) The practical benefits of the so-called "all-inclusive" course of study should be made available to students in each high school. This involves the abandonment of the "interlocking system among schools" in so far as it requires students to register simultaneously in two schools in order to secure a complete course.

(2) At least one modern foreign language should be offered in each high school, and each school should be prepared to offer a second language if there is sufficient demand to justify it.

(3) As recommended in other chapters in this report, elective courses should be offered in each high school in free-hand drawing and design, and in music, including band, orchestra, and choral singing.

(4) The courses in science should be strengthened and extended, especially the social sciences. To the latter very little attention is now given. In three schools only an elementary course in economics is offered as an elective in the junior year. Aside from this nothing is done in this important field. See also Chapter IX.

(5) Strong courses in shopwork and drafting for boys, home economics for girls, and commercial courses for both boys and girls, should be offered in each high school. The polytechnic high school and the commercial high school should continue to emphasize these special fields, and one high school might be permitted to emphasize courses designed especially for girls.

DIRECTING STUDENTS IN CHOICE OF SCHOOL WORK.

Little or no effort seems to be made in San Francisco to direct the pupils in their choice of work when entering high school, or to aid them to select a proper curriculum after they have chosen their work. A valuable service might be rendered the pupils of the high schools if the faculty of each school were divided into groups or committees for this purpose.

One plan is to divide the faculty into eight groups or committees, one for each half-year of the four-years' course. Whenever the faculty is large enough, each committee may have representatives actually teaching classes in all four years of the course. At the beginning of each half of the school year one of these committees is assigned as an advisory committee to all students entering at that date. The

plan provides that this advisory relation shall continue uninterruptedly, the committee and this particular group of students being associated through the entire four years of the course.

Each committee should discuss with the pupils of its group the courses of study offered by the schools, the industries and the life of the city, and the preparation needed for them, and the aims of these young people in coming to school: and should help the students to plan their courses of study.

The continuity of this relationship will bring it about that each class will have a group of faculty sponsors with a feeling of special interest in and responsibility for the pupils of that class. A record should be kept of all the conferences of the sponsors with the students. In this way a fund of valuable and available information about the class as a whole and about the individual members of the class may be accumulated. Personal interest may thus be developed which will bind both teachers and pupils more firmly to the school, enable teachers to do their work with greater devotion and pleasure, and tend to keep a larger number of pupils in school till graduation.

DEVELOPMENT OF SCHOOL SPIRIT.

In the development of the proper kind of school spirit among the students, as in so many other features of the successful high school, everything depends on the principal and on the earnest cooperation and support of colleagues who understand and are in thorough sympathy with his ideals. In the opinion of many educators, the more or less informal agencies which may be utilized for the encouragement and direction of school spirit have a place and an influence in the formation of character no less important than the formal exercises of classroom, shop, and laboratory. In all of these the personal influence of principal and teacher counts in ways not often fully appreciated and to an extent not easily measured.

Among these informal agencies may be mentioned the conferences between students and advisers, occasional assemblies of students and faculty, public programs rendered by students, interschool contests in debate, basket ball, baseball, football, swimming, military drill, and rifle practice. All of these may be utilized under favorable conditions to promote the best type of school spirit, or they may be neglected and allowed to do more harm than good.

In addition to these and other agencies, the organization of bands and orchestras in the high schools, with good leaders and city support, would express and foster a kind of school and community interest hardly possible otherwise. These bands and orchestras should appear in assemblies of pupils once a week or oftener, when public programs are rendered by students, and when school teams of

various kinds are brought together from the several schools in the city for a central contest. Contests among bands, orchestras, and glee clubs are just as beneficial as are contests in debate, athletics, or military drill. They react upon the school and upon the people of the school district, and contribute to the school life something which other organizations and other lines of activity can not.

Social and community organizations meeting in the school, and in which pupils from the school participate, also contribute to the development of school and community spirit.

The impression gained by members of the survey commission with reference to the use of these agencies for the development of school spirit was disappointing. Little evidence of the best type of school spirit was found among the pupils in any of the high schools. Whether this lack is due to the overloading of principals and teachers or to indifference to the possibilities involved, it is unfortunate that a concerted effort is not made to develop that fine spirit of earnest enthusiasm which might easily characterize every one of these schools.

COMMUNITY CENTERS.

Every high school in the city should be a community center. The auditoriums, the lunch rooms, and other school equipment should be at the service of parents when they come together in the schools which their children attend to discuss questions of common interest to pupils, teachers, and parents and questions relating to the civic life of city, State, and Nation. Only one school—the Polytechnic High School—is now functioning in this way.

SOCIAL LIFE OF THE HIGH SCHOOL.

The social life of the school should be fostered by the faculty and directed by the dean of women. It should be made a real social life. Opportunities for social intercourse should be made or found during the school day, immediately after its close, and occasionally in the evening. Such social intercourse between boys and girls under proper direction satisfies a kind of social longing, which, if not satisfied under proper direction, will seek and find satisfaction under misdirection. The modern city home does not function socially so fully as did country and village homes of former generations, and the cities are filled with dance halls and other places of cheap amusement and of doubtful morality. The school must therefore supplement the social life of the home and counteract the attractions of cheap and doubtful commercial entertainment.

The dean of women and the principal and other members of the high school faculty must do much that was done by fathers and

mothers when life was less complex and artificial and the home occupied a place of much greater relative importance than it now does.

The dean of women should be chosen with great care. She should be a woman of large experience and possessed of real interest in young men and women; a woman of mature years but still in sympathy with the spirit of youth. Such a woman can have great influence on the character and conduct of high-school girls and easily correct almost all improprieties in their conduct, conversation, and dress. The personality of the dean is most important. The responsiveness of adolescent girls will be in proportion to the warmth of sympathy and generous interest of the dean. The same principle applies in the relation of boys to the principal. At present there seems to be comparatively little social life in the high schools and little effective direction of what there is.

The dean of women and the principal acting as dean of men should cultivate close personal, intimate relations with the pupils; should know their ambitions and their purposes and something of their homes and the conditions under which they do their school work away from school. Such relations and such knowledge form a basis for a wise and sympathetic direction and help that can not be had in any other way.

The principal and the dean of women should have rooms properly equipped for receiving and conferring with boys and girls on questions peculiar to the development of adolescent life, and these rooms should be so private that personal interviews in them may be as private and sacred as if conducted by parents in their homes. The rooms placed at the disposal of the dean of women should include a rest room for girls, and every school should be provided with suitable first-aid equipment.

The work suggested here for the dean of women and for the principal acting as dean of men is not a part of the formal curriculum, and boys and girls are not to be graded and examined on any part of it; but the education of young men and young women is not complete by any means if it is confined simply to the information and training given in classrooms, libraries, and shops. The close personal relations and the consequent sincerity and freedom of intercourse between deans and the boys and girls can not be overestimated. "Education is life," and whenever any part of life is omitted in what we call "education," there can hardly fail to be subtraction from life itself.

No dean of women was found in any of the high schools of San Francisco, nor any woman teacher definitely charged with this relationship to girl students; nor does it appear that any principal, or

any other member of the faculty of any of the schools, is freed from other duties sufficiently to enable him to perform in any effective and sympathetic way the functions of a dean for boys.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

1. The number of high schools reporting to the Bureau of Education increased nearly three times as rapidly as the total population during the period 1890 to 1915, indicating a great popularization of high-school education.

2. Compared with other cities in the same population class, San Francisco has not shared proportionately in the movement for the expansion of public high-school facilities which is characteristic of the country as a whole.

3. The realization of the ideal of a high-school education for practically every normal boy and girl is now believed by many to be a reasonable object of endeavor.

4. For the great majority of boys and girls the completion of the high-school course represents the final limit of attendance upon day school, under existing conditions. Consequently, the high school should address itself to the task of discovering the ways in which it may render the maximum service to all boys and girls in their efforts to prepare for useful and satisfying careers in many different directions.

5. The important features of a successful high school are: (a) An adequate building; (b) ample equipment; (c) varied courses of study; (d) adequate and efficient teaching force; (e) efficient administrative machinery; (f) provision for the physical and social welfare of students and faculty; (g) inspiring leadership. As has been shown in this chapter: (a) The high-school buildings in San Francisco are poorly located, and are inadequate in number and in facilities provided; (b) the equipment is meager; (c) the courses of study are varied for the city as a whole, but restricted as to the individual student; (d) the teaching forces are inadequate; (e) there is no efficient administrative machinery; (f) the physical and social welfare of students and faculty are largely neglected; (g) existing conditions are not favorable to the provision of inspiring leadership.

6. The school authorities in San Francisco are to be commended for the adoption and announcement of the following progressive program with reference to the high-school courses of study:

a. Proposed abandonment of the principle of "type" high schools, and introduction into all schools of as many as possible of the foundational subjects of the first two years.

b. Virtual acceptance of the principle of the cosmopolitan curriculum, as indicated by the attempt to make its advantages available to every student through an "interlocking system."

c. Recognition of the necessity of providing for a variety of aims on the part of the student body.

d. Recognition of the elective system in planning four-year programs for students.

e. Arrangement of studies in curricula, or "groups," as suggestions for the assistance of pupils in planning their work to accomplish certain definite ends.

f. Tentative inauguration of a "continuation plan," by which students are permitted to register for half-day sessions to continue their education while engaged in wage-earning employment during the remainder of the regular school session.

7. In the actual administration of this program, however, it is noted that: (*a*) The high schools are not so located as to provide equality of educational opportunity to all sections of the city; (*b*) only two of the seven curricula are offered in all high schools; (*c*) some important groups of elective subjects are offered in only one or two schools; (*d*) in actual practice the "interlocking system among schools" has not secured for students the advantages expected of it.

8. Needed changes in the course of study are: (*a*) The actual benefits of the "all-inclusive" course of study should be made available to students in each high school; (*b*) at least one modern foreign language in each high school, and a second language if demanded; (*c*) elective courses in each high school in free-hand drawing and design, and music; (*d*) courses in science strengthened and extended, especially social science; (*e*) strong courses in shopwork and drafting for boys, home economics for girls, and commercial subjects for both boys and girls in each high school.

9. In the revision of high-school courses of study due consideration should be given to desirable adjustments to the industrial, commercial, and manufacturing life of the city.

10. It is not necessary that the differentiation in the curriculum shall be carried out in the same way in any two schools. In any school differentiation should be according to definite and predominating needs of the district in which the school is located. Greater differentiation may be made in the last two years. Should the schools of San Francisco be reorganized on the six-three-three plan, this principle of uniformity and differentiation should be applied: Greater uniformity in the junior high schools and more differentiation in the senior high schools.

11. Needed changes in material facilities require that additional buildings be erected at an early date on the land adjoining the

High School of Commerce and the Mission High School, and that new buildings be provided as early as possible for high schools needed in Richmond and North Beach. The new schools should at first be junior high schools and should be gradually developed into senior high schools.

12. High-school districts should be formed with more definite boundaries, following the establishment of high schools in other parts of the city.

13. Both boys and girls should be admitted to all high schools. The great majority of high schools in the United States are coeducational, and the preponderance of opinion of educators favors the education of boys and girls in the same school. In high schools in a city as large as San Francisco it is easy to separate boys and girls in classes when thought advisable for any reason, and to provide separate courses of study in such subjects as are of especial interest to either sex. The survey commission did not find that anything is gained by the segregation of girls in the Girls' High School. This segregation does, however, give rise to many inconveniences and loss of much of educational value.

14. Each high school should have a good reference library in charge of a trained librarian. There should be ample appropriation for the purchase of reference books.

15. High-school buildings not provided with individual lockers for pupils should have such provision made at once.

16. Evening schools should be opened in all the high-school buildings, with adequate provision for faculty, equipment, and supplies.

17. A stenographer clerk should be furnished the principal's office in each high school enrolling 500 pupils or less, and a stenographer clerk and a record clerk for the principal's office in each high school enrolling more than 500 pupils. In each case suitable office equipment should be provided also. The principal of the high school should not be required to be a record clerk or to spend his time in letter writing and answering and operating the telephone, but should be free to give all of his time to his professional duties.

18. All high schools should be required to keep uniform record blanks of all kinds, and permanent student records, together with card catalogues of graduates. In the card catalogues should be kept an accurate record of all students for at least 10 years after graduation. Only in this way will it be possible to determine whether the high school is really meeting the needs of the public.

19. The amount of work done by teachers in all the high schools, measured by the number of periods per day they are busy, is too great, and many classes contain too many students for effective work.

20. The number of teachers should be increased to such an extent that the usual number of daily periods of classroom instruction per

teacher shall not exceed five, and no teacher should be required to instruct more than six classes a day. This is quite generally recognized as a maximum limit beyond which the best work can not be done.

21. The size of classes should be reduced gradually until the usual maximum average attendance does not exceed 25 pupils per class. Only in exceptional cases should recitation classes be permitted to exceed 30.

22. A professional spirit among the teachers should be encouraged, and principals and heads of departments should be given the authority necessary for the encouragement and direction of such a spirit. Reports as to membership in associations, attendance on State, county, and national conferences, and other evidences indicate that there is at present very little real professional spirit among the high-school teachers.

23. An increase should be made in the salary schedule of high-school teachers so as to encourage study, travel, and participation in teachers' associations and other means of stimulating professional growth. The salaries of high-school teachers as compared with the salaries of teachers in the elementary schools are much lower in San Francisco than in other California and coast cities. The city should have a high-school teachers' association, and membership in this should be made a part of the obligation in the contract with high-school teachers, and interest in it should be regarded as one of the elements determining promotion in position and salary.

24. High-school principals should be given more responsibility and more authority. Assuming that capable leaders have been selected as principals, with broad but clearly defined limits of discretion, responsibility, and authority, they should be given freedom within these limits to work out the problems of the schools.

25. In each high school the principal and each head of a department, subject to the approval of the superintendent, should be charged with the direction and work of that department.

26. In each high school there should be advisory committees, appointed by the principal, for the purpose of assisting students in the choice of studies and in giving them such special help as they may need later.

27. In each high school there should be a dean of women, and a physical director. These should be responsible to the principal of the school, and their work should be assigned by the principal under the direction of the superintendent.

28. The social life of the school should be definitely fostered by the faculty and directed by the dean of women.

29. The dean of women and the principal, acting as dean of men, should function in the life of the school in many positive and helpful ways.

30. Effort should be made to utilize the various informal agencies available for the encouragement of a more positive type of desirable school spirit among the students and for the development of that fine spirit of earnest enthusiasm which might easily characterize every one of these high schools.

31. A community center should be organized at each high school.

Chapter IX.

CIVIC EDUCATION.

INTRODUCTION.

I. THE NEED OF CIVIC EDUCATION.

Citizenship is inevitable for every man, woman, and child in our country, excepting only the unnaturalized foreign-born. Of the latter, the great majority will sooner or later take the legal steps necessary to admit them to full citizenship, while even the alien within our boundaries enjoys most of the rights and is subject to many of the obligations of the native-born citizen. In the San Francisco schools many school children were found, between the ages of 12 and 16, who, because of a wrong conception of what the word means, did not even know that they were citizens.

Civic education is as inevitable as citizenship itself. The lad who knows no school but the streets, and the immigrant who is almost ignored except by those who would exploit him, are having the character of their citizenship moulded unceasingly by the experiences of their daily life. It is far less what the child or the immigrant is taught than what he sees and experiences in the conditions and conduct of the community about him that determines the character of his citizenship. To what extent is the community organizing its civic educational forces to raise the plane of its "civic conditions, civic habits, and civic ideals," and to develop an increasingly efficient citizenship?

The efficient performance of one's part as a citizen requires preparation or training. We are just now being awakened to this fact with respect to the foreigners who come to our shores. The need is no less urgent for the training of those who are citizens for the efficient exercise and for the enjoyment of the citizenship which they have possessed from birth.

While only a part of the responsibility for civic education rests upon the public schools, that part is extremely vital. "The final justification of public taxation for public education lies in the training of young people for citizenship." It can not be doubted that the net influence of the public school has constantly made for a better

citizenship; but the increasing complexity of community life and the tendency toward a more complete social and political democracy give to this work of the school a new importance.

Like other cities, San Francisco furnishes abundant evidence of the reality and urgency of the need for civic education. Various answers may be given, for example, to the question implied in the school survey, "What is the matter with the public schools?" Whatever else may be the matter, radical defects in the organization and administration of a public agency so vitally important could not long exist if the civic interest and intelligence of the people, whose agency the schools are, were fully awake. On the other hand, if the schools are all right, there are many who manifest a degree of misinformation about them wholly inconsistent with efficient citizenship.

The questions that immediately concern us are:

1. What constitutes effective civic education?
2. Are the schools of San Francisco doing all that they can, and all that the community has a right to expect, of them, in the performance of their function in this respect?
3. Is San Francisco affording favorable conditions and adequate cooperation for the accomplishment by the schools of their civic-educational work?

II. WHAT IS EFFECTIVE CIVIC EDUCATION?

Civic education, like moral education, is really an aspect of education as a whole rather than a mere segment of it. For the purposes of this survey, however, it is conceived to embrace all organized effort designed to cultivate an understanding of the civic relations of community life, and to develop qualities and habits of good citizenship.

In the chapter on "The Trend of Civic Education" in the Report of the United States Commissioner of Education for 1914, the following aims of civic education are stated:

I. *Civic intelligence*, which includes: (1) Civic knowledge; (2) power to organize civic knowledge in relation to one's own experience; (3) judgment when confronted by a civic situation or by a choice of methods of meeting such situation.

II. *Adequate motives*: (1) For civic education itself; (2) for proper civic conduct.

III. *Qualities of good citizenship*, such as: (1) A sense of personal responsibility for community welfare; (2) power of initiative in civic action; (3) a spirit and habit of cooperation, etc.

In San Francisco this statement of aims was presented to at least 50 principals and teachers in three conferences, and to many individuals within and without the schools. There was no dissent. It seemed fair, therefore, to inquire whether these aims are being accomplished in the schools of the city. This is especially so since the

aims here stated conform in general, also, with those given in the printed course of study as we shall see later. In the analysis of the civic-educational work of the San Francisco schools, therefore, the following questions were constantly kept in mind and formed the basis for judgment:¹

1. To what extent is the pupil helped to organize his existing fund of civic information which he has previously acquired by observation and otherwise?
2. To what extent do the pupil's past experience and his present (as well as future) interests and needs determine the selection and organization of the subject matter of instruction?
3. To what extent does the school provide the pupil with adequate motives for his own civic education and for efficient participation in civic activity?
4. To what extent does the school cultivate civic initiative?
5. To what extent does the school cultivate the pupil's judgment with reference to actual civic situations and methods of dealing with them?
6. To what extent does the school cultivate in the pupil a spirit and habit of cooperation?

III. THE SCOPE OF THE INQUIRY.

There are two main channels through which the school influences the present and future citizenship of the young citizens in its care: (1) The course of study; (2) the social contacts and activities of the pupils.

The course of study in the San Francisco schools provides specifically for instruction in "civics," whose subject matter pertains directly and exclusively to citizenship and government. This subject, however, is one of a group of "social studies," including history, geography, economics, etc., all of which afford opportunity for more or less direct civic instruction. Then there are the remaining subjects of the curriculum, the relation of whose subject matter to civic life is more or less remote and often apparently negligible.

Civic education is as much a matter of habit formation as of instruction. Activity thus becomes not only the end, but also an essential means, of civic education. How far do the schools organize and direct the associated activities of their pupils as an integral part of their civic training? Pupil activities may be grouped as (1) activities within the school and (2) activities outside of the school, but which may be more or less organized by the school, or at least utilized by it, as a means of civic training.

The work of both elementary and secondary schools through these two main channels has been given consideration in this report. In addition, a brief survey has been made of the evening schools, the civic education of the foreigner, the community center, the public library, and the parents' association.

¹ For further discussion of such tests as those suggested here see U. S. Bu. of Educ., Bul., 1916, No. 28, pp. 57, 58; also Bul., 1915, No. 23, pp. 13, 14.

CIVIC EDUCATION BY INSTRUCTION.

A.—ELEMENTARY SCHOOLS.

I. The course of study.—The school law of California requires all teachers "to endeavor to impress upon the minds of the pupils the principles of morality, truth, justice, and patriotism * * * and to instruct them in the principles of a free government, and to train them up to a true comprehension of the rights, duties, and dignity of American citizenship." It also requires that "instruction must be given in the * * * history of the United States and civil government."

Accordingly, the latest course of study for the elementary schools of San Francisco (published in 1911 and amended in 1915) includes a course in "history and civics" for Grades IV-VIII. A brief summary of this course follows:

History.—In the fourth grade biographical stories from American history are presented orally and supplemented by reading from books of pioneer and colonial life, etc. Local history is to occupy a prominent place, and is readily correlated with the general history from the days of Spanish exploration down to the time of California statehood.

In the first half of the fifth grade "special emphasis upon the hero story" is noted in the form of "supplementary reading." Beginning with the middle of this grade and running through the first half of the sixth Wallach's "Historical and Biographical Narratives" is recommended as the basic text. This work is "intended to give the pupils a view of general history in preparation for the later, more systematic study of the history of their own country." "Topics should be treated fully enough to awaken the lasting interest of the pupils in great deeds and their doers."

With the second half of the sixth grade, American history is taken up systematically with a text and carried through the seventh and first half of the eighth grades.

Civics.—Until the eighth grade, civics is wholly incidental to the history study. A "supplementary" text is referred to occasionally. The nature of the work intended is suggested by the following quotations from the course of study:

"History gives the personalities and situations which constitute the embodiment of the best civic principles. Wherever the material gives a situation where some individual has performed or failed to perform his noblest part to the advantage or disadvantage of his country and his fellow men, the civic principle involved should be pointed out and discussed."

"Bring to the attention of the children by talks and discussions some of the easily understood principles of government, such as the meaning of the word government and the necessity for some form of it; the family and its government; the schoolroom and its government; the playground and its government."
 " * * * the idea of a city and its government; of a State and its government; of the government of our country; titles and names of the chief officer in each of the three."

"In connection with the chapter on the Revolution, discuss the following topics in simple form: Who makes the laws and by what right; the right of the King and Parliament to govern America; the State governments of the free

Colonies and why they joined in a National Government . . . Under the Constitution discuss . . . : How the western country was formed into States; nationalism vs. sectionalism; our relations to our island possessions; reclamation and conservation."

"The sacrifice of special interest to general good in the Constitutional Convention; Jefferson's theories of government; international law; the meaning of the Monroe doctrine; Clay, Adams, Jackson, Webster, etc., as patriots."

"Lessons of patriotism from the Civil War; immigration; pauperism; education; the tariff; America as a world power; the trusts; conservation and reclamation; pure-food acts; socialism; the peace movement; quarantine regulations—State and Federal."

In the eighth grade civics becomes a separate subject with a basic text. The following main topics are given in the course of study:

"The beginning of a community; what is a community? the site of a community; what the people in communities are seeking; the family and its services to the community; the making of Americans; the relations between the people and the land; the protection of health, life, and property; the relation between the citizen and the community in business life; government and business life; waste and saving; transportation and communication; education; civic beauty; what the community does for those who can not or will not contribute to its progress; how the citizens govern themselves; some defects in the self-government of communities; the government of rural communities; the government of the city; the government of the State; the Government of the Nation; how the expenses of government are met."

In the introduction to the 1915 "Outline of Courses of Study" it is stated: "This is a minimum course of study and does not preclude any teacher from doing more work, suitable to her own grade, if her class shows the ability. Such additional work, however, must not be in lieu of anything herein required. Principals are required to enforce this course of study in their respective schools and teachers are to follow it.

II. *Eighth-grade civics.*—As a rule civics is not taught as a separate subject until the second half of the eighth grade, a daily recitation then being devoted to it. Occasionally it is extended over the entire year on alternate days with United States history. In one case observed, instead of a daily 25-minute recitation each in geography and civics, a 40-minute daily period is given to geography one week, and an equal time to civics in the following week, the two subjects thus alternating weekly throughout the term. The purpose is to secure greater concentration upon each subject while it is under consideration.

1. *Aims and methods.*—In the 1911 course of study it is stated that—

The purpose of civics is to give the children definite and concrete ideas and standards of conduct controlling the social relations of men and women. Further, its purpose is to stimulate such observation and analysis of social situations that some heightened power to form independent personal opinions shall be given, a power which is demanded of every person by a democratic government and society. Civics, particularly in the eighth grade, is a splendid

opportunity for applying to life situations much that has been learned in the various school subjects as they are seen in terms of human need. Civics is the one subject which gives a direct treatment of citizenship and its obligations and it ought to be the crowning study of the public schools, which have been established primarily to perfect citizenship. (p. 104.)

The child should become conscious of the social institutions of which he is a member; he should know their contribution to his happiness and safety and welfare; and at least he should be made sensitive to his obligations and those opportunities which are afforded him at every instant of life to discharge his duties as a good citizen. It is, therefore, intended that an effective concentration of this work be accomplished in the eighth grade and careful and complete study from a textbook be undertaken. (p. 105.)

As to method the following instructions are given:

Avoid memorization of facts as facts. It is easy to create an interest in social affairs because their problems impinge on the lives of all of us. Work largely by the method of observation, reading, inquiry, and discussion * * *. Try to create a strong feeling of admiration for well-established principles of social conduct and strong attitudes of revulsion against those types of social misconduct about which there can be no question. Work particularly to fix admirable and desirable qualities of human character in the minds of children by showing how they have been present in the personalities of great human leaders such as Washington, Lincoln, and others. (p. 105.)

Observation, inquiry and reading outside the recitation, and discussion of topics in the class exercise will be the method of instruction. Try to have the children get their information in the way in which they will be compelled to get it in after life. Stimulate free investigation and discussion in a spirit of absolute fairness. Use the questions for investigation at the end of each chapter * * *. Work for a devotion to right ideals and a proper attitude of mind rather than a mere command of facts. (p. 130.)

As far as could be ascertained no further explanatory statement of aims and methods has been issued from the office of the superintendent since this one of 1911. The aims and methods here briefly suggested seem to be in general harmony with those stated in the introduction to this report (see above, p. 300). It remains to consider the actual practice in the schools.

2. *Types of instruction.*—The instruction observed in the eighth-grade classes in civics in San Francisco is of four general types:

(1) *Formal civil-government type.*

Teacher: What is civics?

Pupil: Civics is the science of our government.

This single introductory question and answer of one recitation are typical of a kind of instruction that places a premium upon rote information and definition. The "science of government" is wholly beyond the range of an eighth-grade child's interest, experience and comprehension, as would be the science of economics or the science of physics. It is out of harmony with the aims and methods set forth in the printed course of study (see above), nor does it meet the tests formulated in the introduction to this report (p. 301). More-

over; it does not conform to the spirit and method of the textbook which the teacher was using, which is "more concerned about the interest that the pupil shall develop in the life of the community and his relations to that life, than about the amount of systematic knowledge that he shall gain regarding the forms and workings of government" (preface to textbook, pp. iii, iv).

This type of instruction is more fully illustrated by the following portion of another recitation:

Teacher: What are the three branches of government?

Pupil: The three branches of government are the legislative, the executive, and the judicial branches.

Teacher: What is the duty of the legislative branch?

Pupil: The duty of the legislative branch is to make the laws.

(A similar question and answer with reference to the other two branches.)

Teacher: What is the legislative branch of the National Government called?

Pupil: The legislative branch of the National Government is called Congress.

Teacher: What are the two branches of Congress?

Pupil: The two branches of Congress are the House of Representatives and the Senate.

And thus throughout the recitation. Another teacher who in conversation seemed to have grasped another viewpoint, remarked when about to open her recitation, "I must explain that I believe it a good thing to make a summary analysis of the Constitution *before beginning the regular work*. That is what we are doing now." She further explained that "several weeks" were spent in this way. A considerable portion of the ensuing recitation was given to a discussion of "bills of attainder" and "letters of marque and reprisal."

Frequently pupils were called upon to recite the preamble to the Constitution of the United States. This is worth memorizing for more reasons than one; but in no case was an attempt made to emphasize the idea which the preamble so clearly illustrates: The idea of common welfare and common interests, of the necessity for cooperation to provide for them, and of government as the supreme means of cooperation.

Nor does the shifting of emphasis from national to local, or even from governmental to industrial and other social facts, necessarily relieve instruction of formalism. Local facts and relations have a peculiar value in the civic education of a child; but much of this value has been lost by the formal way in which children are taught about city charters, the work of local boards and commissions, catalogues of industries, and miles of pavement.

The formal type of civics instruction includes all that whose primary aim, regardless of its subject matter, seems to be merely to impart formal information; or which results in this, whatever its aim may be. There is a great deal of this type of instruction in the eighth grades of the San Francisco schools.

(2) *The textbook type of instruction.*—This is characterized by close adherence to the letter of the textbook though not to its spirit. It is widely prevalent in San Francisco. It is itself a variation of the formal type already described, for close adherence to the letter of the text results in formalism of the worst kind. As truly as the first type it violates the dictum of the printed course of study, "avoid memorization of facts as facts," even though the facts be of a different kind from those usually dealt with in the first type. It also violates the spirit of the text in use, in the introduction to which the teacher is cautioned: "The pupil should be kept as far away as possible from the idea that he is studying a book. The real object of his study is the community in which he lives."

Sometimes the pupils close their books and recite on the subject matter of the text as previously studied. More commonly they read the lesson aloud, paragraph by paragraph, sometimes with a repetition of the thought in their own words, occasionally with concrete illustrations of local application, usually with very little discussion.

In one class, in which the instruction seemed on the whole to be of good quality, the importance of the home as a factor in community life was up for discussion. A pupil gave an excellent reproduction of what the textbook said about the evils of overcrowding in "slum" districts of large cities—from the spread of disease or fire, the difficulty of controlling crime, the increased cost of governmental protection, etc. In the course of his recitation he repeatedly referred to "the city."

Observer: What city are you talking about?

Pupil (very promptly): New York.

Observer: Are you particularly interested in New York?

Pupil: No, not very.

Observer: In what city are you most interested?

Pupil (after a pause): I think I am most interested in San Francisco because I live here.

Observer: Are the facts that you have been reciting about New York equally true of San Francisco?

Pupil (thoughtfully): Not exactly.

This boy had a considerable fund of information regarding similar conditions in his own city—incomplete, unorganized, and doubtless partly erroneous. So far as his recitation indicated, however, he was studying New York from the pages of a book, when he should have been organizing, correcting, and supplementing the facts of his own community life of which he was already more or less conscious. Information about New York and other cities derived from the textbook and elsewhere should afford a basis for comparison and generalization.

At the ends of the textbook chapters are topics for investigation. They suggest lines of inquiry into the facts of the pupils' community

life, facts to be gathered by observation, personal inquiry at home or of friends, by reference to local reports, newspapers, periodicals, etc. In the introduction to the textbook it is stated:

The topics at the ends of the chapters are intended as aids in the study of the real community in which the child lives. If any of them prove otherwise, they should be omitted or modified, or others should be substituted for them. Some topics may be used for general class work, others for individual reports. They can not all be used effectively in every community. The teacher should fit the topics to the needs of the class and to the conditions of the particular community. Do not expect the same results from all pupils, but lead each to expect to make his contribution to the progress of the class.

The textbook type of instruction fails to get the value from such topics. Sometimes they are ignored altogether. One teacher did little with them because she "had not time to work them up." Sometimes they are used but in a perfunctory manner. "Take the topics at the end of the chapter." A lesson assigned on this basis is almost inevitably foredoomed to failure.

(3) *The moralizing type.*—The moralizing type of instruction is not common in connection with eighth-grade civics, so far as observation indicated, but more than a suggestion of it was seen in a few instances. It is the type of instruction which does little more than to make the civics lesson an excuse, or an occasion, for so-called "moral lessons," often of a rather sentimental character. There is no better or richer opportunity for real moral training than in connection with civic instruction. Effective civic education is fundamentally moral. But "moralizing," in the usual sense of the word, is not only a far cry from civic education, but it also accomplishes little for the real moral training of children.

Closely related to this sentimental moralizing about good citizenship is much of the so-called "teaching of patriotism." The singing of patriotic songs, the recitation of patriotic selections, the salute to the flag, and the repeating of pledges of loyalty to Nation or city have their place. They are universal throughout the San Francisco schools. But unless they are supplemented by organized civic training of a more fundamental type, they tend to become "as sounding brass, or a tinkling cymbal." This impression was intensified on seeing a class of 45 Chinese children, one-third of whom were born in China, and under our laws could by no possibility become "citizens," repeating the "oath of allegiance" and saluting the flag of "our country." It should be added, however, that in this class the observer did see evidences of civic instruction that was much more fundamental.

(4) *The "community civics" type.*—This term, which is now in current use, designates that type of instruction which is characterized chiefly by the fact that the pupil's own community is the direct subject of study. Local community study occupies a promi-

ment place in it; because this is the community of the child's chief experience; but he is a member of a National and a State community as well as of a city or a neighborhood. Community civics aids the pupil to an understanding of the meaning of his community life in terms of his own experience, "what it does for him and how it does it, what the community has a right to expect from him and how he may fulfill his obligation; meanwhile cultivating in him the essential qualities and habits of good citizenship."¹

This type of instruction is rare in the San Francisco schools, although it is apparently what was intended in the brief discussion of aims and methods in the course of study of 1911 (above, pp. 303-304), and although the textbook in use seeks to stimulate it.

The following portions of a recitation in a measure illustrate it. This recitation was reported verbatim, but it is not equal in quality to other work previously observed in the same class. Constructive comments are interspersed with the questions and answers in the following reproduction.

It will be noted that not a question was asked by a pupil and that each question by the teacher was invariably answered by a single pupil. This suggests a lack of initiative, if not of vital interest, on the part of the pupils. Freedom of discussion and inquiry is an important element in community civics.

Teacher. This afternoon we are going to talk about how the community aids the citizen to satisfy his desire for health.

(The topic is here stated in the words of the chapter title of the textbook. It would have been more effective if it had been restated: "We are going to talk about how our community helps us to satisfy our desire for health.")

Question 1. What other desires has man?

Answer 1. His other desires are for wealth, for beauty, for knowledge, for companionship.

(Still the abstract. If the question had been, "What other desires have we?" the answer would have been, "We desire wealth, beauty, etc." The desires here mentioned are among those referred to in the textbook as furnishing the motives for all community activity. Whether their existence had been worked out by the class on the basis of their own experience, as they should have been, or was merely accepted on the authority of the text, is not known.)

Question 2. If you were asked which of all these desires you would value most, which would you take?

Answer 2. I would choose health, because without health we can not satisfy the other desires very well.

(This question and answer are more direct, but they might have been improved: "Which of these desires do you value most?" The pupil should be stimulated to say what he actually thinks, and an opportunity afforded for class discussion.)

Question 3. Why can not the family alone protect the health of its members?

¹The aims, content, and methods of community civics are discussed fully in *Dial*, 1915, Nos. 17 and 23, and 1916, No. 28, U. S. Bu. of Educ.

Answer 3. When in the wilderness the families were scattered and alone, it was possible for them to take care of their health very easily, because there were no dangers as now in large cities, where many people are crowded together.

(The pupil was apparently trying to recall what the book said on this point.)

Question 4. What are some of the dangers where people are crowded?

Answer 4. The dangers of people in a community are from impure water supply, adulterated foods, germs, and unclean places . . . , and in each community the government must take care of the health of the citizens.

(Questions 3 and 4 might have been developed thus: Can your family protect your health completely without help from outside? Why? Give illustrations to prove it. Compare your family with a pioneer family in the early days of California in this respect. What dangers to health are there in this school? In your neighborhood? In San Francisco?)

Answer 4, instead of being a formal abstract reply, probably largely suggested by the textbook, would have become a class discussion based on observation, conversation heard, current reading, etc. Then—

Are the water supply and the food supply of San Francisco pure? Are you sure of your facts? How do you know? How can you find out? Is there a pure-milk problem in San Francisco? If so, what has been done about it? etc., etc.)

Question 5. In what ways does the government do this work? (Referring to last part of answer 4.)

Answer 5. They have sewers to carry away the unclean water.

Question 6. What else?

Answer 6. They take the garbage out to the ocean and dump it there.

Question 7. What else has the government done for the protection of health?

Answer 7. The government has street cleaners and inspectors and the board of health.

Question 8. Tell me about the board of health; of what does it consist?

Answer 8. The board of health consists of seven members appointed by the governor. Three of them have to be physicians practicing in this State for five years. They must see that the ordinances made by the supervisors and board of health are carried out.

Question 9. Do they receive any compensation?

Answer 9. They receive no compensation.

(Answer 8, if correctly reported, contains an error. No member of the class seems to have caught it, and no attempt was made to correct it.

Questions and answers 1-4 seek to establish the importance of health, the dangers threatening it, and the dependence of one upon another for health protection. 5-9 develop the means by which the people cooperate through government for health protection.

Without knowing what follows in later lessons, the recitation based on questions 5-9 seems superficial. The story of how San Francisco keeps itself clean, for example, is worthy of more than the passing attention given it.)

Question 10. What does the board of health do? Can you tell me some things that have happened in your own experience that the health board has done in regard to quarantine, or anything of that kind?

Answer 10. My sister had scarlet fever. They quarantined our house for one month, and she was kept in one room. My mother had to stay there a great deal of the time, and when coming out had to change her clothes in order that the germs would not be carried to other members of the family.

Question 11. Was this beneficial?

Answer 11. Yes; because it kept other people from getting the disease, and we were not allowed to communicate with anybody. Besides, they had a sign on the door, and no one was allowed to enter the house.

Question 12. And were your people strict about obeying all regulations?

Answer 12. Yes; my mother was very strict.

Question 13. Suppose there is a family where there is a dangerous disease and the family refuses to obey these regulations?

Answer 13. They are compelled to follow them.

Question 14. Suppose they are not watched all the time and go out and permit people to come in?

Answer 14. Then the district they live in will become dangerous with this disease.

Question 15. Would you call those people good citizens?

Answer 15. No.

(Questions and answers 10-15 are a good example of building on the pupil's own experience. They also emphasize personal responsibility.)

Various other topics were discussed, such as playgrounds and hospitals, until the following questions were asked, illustrating how the community civics idea is extended to State and national activity.

Question. Explain how health in one community depends on that in another.

Answer. If there is a stream that runs through two cities near one another, and one of the cities pollutes the stream and the stream is running toward the other city, the other city will get this water and the disease also. . . .

Question. What does this lead to; it is not only necessary to have a local board of health--?

Answer. The State board of health is equally necessary. . . .

Question. Can you tell some of the things the State board of health should attend to?

(This question was discussed all too briefly.)

Question. What does the National Government do to aid the citizens to satisfy this desire for health?

Answer. The National Government, when ships are coming in from foreign countries, sees that these ships are inspected and the people examined to find out if they have any diseases; and, if they have, the ship is quarantined and the people not allowed to come ashore until the disease is passed on. If it is a disease that can not be cured, the people are sent back to the country they came from. . . .

(This seaport affords unusual opportunity for the children to observe the National Government at work. These last few questions suggest material for a number of lessons.)

It may be objected that, if the suggestions here made were followed out, too much time would be consumed. The course of study says "complete the book." Teachers frequently interpret this literally. When this occurs the instruction in civics will be of the text-book type, and not of the community civics type. It is, of course, impossible to treat intensively every topic suggested; but some of them must be so treated if the pupils are to receive any real training for citizenship.

3. *Material aids for civic study.*—Almost no material evidence was seen in classrooms to indicate that a study of the pupils' community life was going on. In one case only was there a bulletin board for

newspaper clippings (but with no clippings on it at the time). There were no photographs or other pictures, no exhibits of any kind. No publications of local voluntary social agencies were seen, and if an occasional municipal or other governmental report was to be found on the teacher's desk it was exceptional, and no actual use was seen to be made of such.

It is difficult to see how civics instruction can be made vital without such concrete material. It brings into the classroom tangible or visible evidence of the community life outside, and helps the pupil to connect his study with reality. It affords the teacher evidence of the pupils' interest, of the extent to which they comprehend the class work, and of the intelligence with which they organize their acquired information and apply it to their own community relations. Profitable training is given by the search for news items, editorials, and magazine articles pertinent to the work in hand; by taking kodak pictures illustrative of conditions under discussion; by examining reports of governmental and voluntary agencies; and by organizing the materials collected for the uses of the class.

The published reports of governmental departments and of voluntary social agencies contain much material within the comprehension of eighth-grade children under supervision. The municipal reports of San Francisco for 1912-13 (the latest at hand) contain 88 pages on the work of the board of health alone, and as many more on the vital statistics of the city, a judicious use of which would relieve the study of abstractness and superficiality. With respect to the availability of such official reports for civic-educational uses the following may be said:

(1) Much of the material of such reports is presented in statistical tables, which very few people read because of their formidable appearance or because they are not understood. Since tables and charts are a common and useful means of presenting certain kinds of information, instruction in regard to their use might well find a place in the education of the citizen. It should not be given, however, through formal exercises in reading tables as such, but incidentally by the intelligent use of appropriate tables pertinent to the work in hand. Such, for example, is the table on page 692 of the municipal reports for 1912-13, which shows clearly, among other things, the danger from so-called "trifling" diseases such as whooping cough as compared with more dreaded diseases such as smallpox or diphtheria.

(2) The value of public reports depends upon the extent to which they are read and understood. If they could be prepared in clear logical English, devoid of technicalities, with ample explanation and illustration, so that they could be easily understood by the rank and

file, it would be an inestimable service to the community. Such a report was published by the city of Cincinnati in 1912 (there may have been later similar reports) and is said to have been of great service in the schools.

The body of information contained in such local reports can not be included in the compass of a textbook prepared for general use, neither can it be included, except in illustrative quantities, in a textbook prepared locally. Even if it could, this is not the purpose of a textbook (see p. 306). Moreover, there is a positive educational value in sending the pupil for his material to the sources which the citizen must use in later life, as clearly recognized in the printed course of study for San Francisco (1911, p. 130; see above, p. 304). As soon as teacher and pupil come to depend upon the textbook for the facts and conditions of their own community life, instruction will deteriorate into the "textbook type" and will lose its essential vitality.

The assembling of materials for study not only teaches the pupil methods in use in actual life, but it places responsibility upon him for his own particular contribution to the work of the class. It offers opportunity for division of labor and cooperation. It helps to develop initiative and judgment. The accumulation and preservation of materials for the use not only of "our class" but also of other classes to follow emphasizes the lesson of obligation to the future.

The pupils of a Chicago high school, in cooperation with outside agencies, prepared an exhibit of civic and social conditions that was visited in a few days' time by 80,000 people. This is an exceptional case; but an exhibit both interesting and profitable to parents and patrons is quite within the ability of most schools, and would serve as an interesting feature of public exercises at the school. The effort of teachers and pupils to obtain reliable and specific information and illustrative material has sometimes set public libraries, chambers of commerce, women's clubs, and other agencies at work to supply the deficiency. The work of the school is thus extended throughout the community.

4. *Supervisory aid for civics teachers.*—The eighth-grade teachers of civics in San Francisco present as high an average of ability as would be found in any large school system. But it is doubtful if any teacher in the elementary schools of the city has had preliminary training in the principles and methods of the vitalized type of civics instruction suggested in the foregoing pages. Normal schools and universities have so far given little help in this direction except such as may be derived incidentally from the usual courses in history and social science. In fact, the work of the higher schools has tended to perpetuate formal methods of instruction.

Thus without previous preparation the teachers of civics have had placed in their hands a textbook, and have then been left almost

entirely to their own devices in the application of the principles briefly stated in the 1911 course of study. Many of them seem even to be unaware of the statement there made. Under these circumstances only a teacher with an unusual social viewpoint and large initiative and resourcefulness could be expected to attain a large measure of success in work of so vital a character without special supervision.

In one school, and only one, there was found an outline that had been prepared under the direction of the principal as an aid to the civics teachers of the school in relating the work definitely to the pupils' community life. Even in this case there was no evidence of its use in the classes observed, and the teachers did not refer to it in describing their plan of work.

Among the bulletins issued by the State Normal School of San Francisco is one entitled "A Composition Course in American Government and Pupils' Handbook to State Series Text." It was seen on the desks of a few teachers of civics in the city. It is in two parts, the first outlining the "composition course in government," and the second giving information supplementary to the civics textbook and largely relating to California. However excellent the outline may be as a basis for composition work, in its effect upon the teaching of civics it distinctly tends to fix the text book type of instruction. Part II contains much useful information, but offers no help on the side of methods, in which teachers most need help.

Unfortunately there seems to be no very intimate relation between the State Normal School of San Francisco and the public schools of the city. It is questionable whether teachers trained solely in an extreme method of "individual instruction," which peculiarly characterizes this normal school, are thereby best fitted to meet public school conditions as they now exist and probably must exist for a long time to come. But whatever its value in the teaching of such formal subjects as arithmetic or reading, it is poorly adapted to a type of civics instruction which depends for its success upon carefully organized group work.

The civics teachers as a rule seemed eager for constructive suggestions as to methods; but they were practically unanimous in the statement that almost no supervision or direction is given. In a number of schools the civics instruction is divided between two teachers who work along entirely different lines and by different methods, neither knowing what the other is doing. In one school, for example, one of the teachers commented especially on the peculiar value of the first few chapters in the textbook as affording the keynote to the entire course. Another teacher in the same school considered these chapters entirely superfluous, and remarked that

she could see no connection between the chapter her class was then studying and the topics that were to follow.

Repeated inquiry discovered but one teacher who ever attended conferences for the discussion of methods in civics. This was the case of a teacher who on her own initiative occasionally "got together" with friends who teach the same subject. It is possibly significant that some of the most vital work seen in the San Francisco schools was in the classes of this teacher. In one school the principal described what he calls his "little institutes" for the teachers of his building; but these relate to civics no more, at least, than to other subjects.

Experience in other school systems has demonstrated that teachers without previous training for this work can be brought to a high degree of proficiency in a remarkably short time while actually in service. It requires, however, special supervision. Work as vital and as far-reaching as that of civic education should be under the direction of a supervisor trained especially for it. His duties should not be restricted merely to eighth-grade civics instruction; but so far as this part of his work is concerned, it should include the planning and organization of the work from term to term; the study of the particular problems of each school and each teacher; the preparation of syllabi and other aids for the teachers; the adaptation of the work to different groups of children, such as the foreign group; the holding of conferences for the discussion of methods and common problems; to act as a sort of clearing-house for the teachers with respect to current happenings and situations that would have a special civic-educational value; to keep in close touch with community activities, departmental reports, etc., in order to advise teachers as to what is of special value and how to use it. The broader duties of such supervisor are referred to on page 366.

Meanwhile great improvement could be made in the quality of the civics instruction if regular provision were made for frequent conferences of the civics teachers, and especially if advantage were taken of the latent leadership, the initiative, the resourcefulness, and the experience of teachers who have shown particular aptitude in this field of work. This policy would not only raise the level of the work of the less capable or resourceful or experienced, but would be a constant stimulus and inspiration to the better qualified to raise their own standards and improve their own methods.

III. *Civics instruction below the eighth grade.*—It is evident from the course of study that the civics instruction below the eighth grade is intended to be incidental to instruction in history and other subjects, although a degree of definiteness and continuity is aimed at (see p. 302 above). A supplementary text in civics for these early grades is specified, but repeated inquiry of principals and teachers

failed to disclose a copy in use or on the teacher's desk. In reply to the question whether systematic civics instruction was given in these grades, some principals and teachers said "yes," others "no," and others "as opportunity offers." Where instruction is "incidental" it is only by chance that it is found in progress at the time a class is visited. Observation indicated that it is casual, varying with the interest and initiative of the teacher.

The course of study states that—

Civics is a splendid opportunity for applying to life situations much that has been learned in the various school subjects as they are seen in terms of human need. History and political ethics, geographic distribution and economic problems, physiology and public health have relations that need to be studied, not in the isolation of their special fields, but in their relationship to each other as they touch individual and social life. Civics ought to be the crowning study of the public schools, which have been established primarily to perfect citizenship.

This statement suggests the following questions:

To what extent are the civic-educational values and opportunities of history, geography, and other subjects recognized and utilized in practice?

To what extent are these various subjects correlated from the standpoint of their common civic-educational value?

To what extent does the curriculum afford continuity to the civic education of the pupil throughout the grades?

To what extent and in what sense does the eighth-grade civics "crown" the work of the earlier grades?

The course of study offers suggestions (see above, p. 302) for the civic application of history instruction which, if carried out in practice in an organized way, would give to the latter considerable direct civic value. Probably they are carried out to some extent, at least by some teachers. But the history instruction is, as a rule, very formal. The textbook is followed closely, and the pupils learn series of facts and events with very little organization of subject-matter in relation to their own interests or to present social conditions.

The history of the colonization of our country, whether on the Atlantic seaboard in the seventeenth and eighteenth centuries or in the far West in the nineteenth century, exemplifies in every detail the motives and processes of community growth and organization to which careful attention is supposed to be given in the civics of the eighth grade. Any of the first eight topics in the outline for civics (see p. 308) could be developed in connection with the colonial history of the United States or the early history of California. The same relation exists between other topics of the civics course and other periods and topics of United States history. By the time pupils reach the eighth-

grade civics they might be quite familiar with many of the ideas and principles which community civics is designed to develop more fully and systematically. And in the eighth grade the civics and United States history should reinforce each other at every point. This kind of correlation would not only enable the pupil to see these two subjects "in their relation to each other as they touch (the pupil's) individual and social life," but would effect an economy of time at least in the eighth-grade work.

It has been said of the elementary schools of another city:

The aim seems to be to make of education, not a process of instruction in a variety of subjects, but a process of living, of growth, during which the various relations of life are unfolded—civic, geographical, historical, ethical, vocational, etc. * * * In the first grade, for example, the pupil does not even study "English" or "language"; he merely does things, and talks about things, and hears and tells stories about things, the teacher alone being conscious that she is giving the child his first organized lessons in civic life, as well as in the use of the English language.

Even in the eighth year, where civics appears as a separate subject alternating throughout the year with American history, the coordination is so close (in the hands of a skillful teacher) that the pupils are hardly conscious that they are studying two "subjects." They are rather studying certain phenomena of life in two aspects—historical and civic.¹

This organic kind of correlation can hardly be said to exist in the San Francisco schools. Perhaps the nearest approach to it was found in the Hamilton Intermediate School. Here typewriting is one of the regular channels for the teaching of English and spelling. Topics for theme work are submitted to the teacher of typewriting by the teachers of other subjects, including history, geography, civics, manual training, sewing, home economics, etc. Lessons in spelling are derived from these various fields. The teacher of typewriting also has direction of the "external reading" of all the pupils of the school, preparing lists of books relating to topics submitted by the teachers of other subjects, and keeping a record of all reading done. Here is a correlation which tends to break down the sharp lines of demarcation between "subjects" and to organize the pupil's education around a real interest. It is not merely that all subjects of the curriculum contribute to the mechanical process of learning to type-write, but that all are, or may be, organized around a real interest of the pupil, which in this case is vocational inasmuch as typewriting is primarily a vocational subject.

The teaching of geography in the San Francisco elementary schools is perhaps even more formal than the teaching of history, although it affords a peculiarly rich opportunity for correlation with the

¹ *The Social Studies in Secondary Education*, U. S. Bu. of Educ., Bul., 1914, No. 28, p. 16.

pupil's life. A member of the survey commission says (Chapter VI of this report, p. 222) :

Home geography, although emphasized in the course of study, is poorly represented in the actual teaching. Excursions are very unusual. San Francisco is marvelously rich in local scenery, in varied commercial and industrial activities, and in striking objects interesting in themselves and suggestive of foreign countries and of far-reaching relations to the outside world. * * * The magnificent harbor, girt in with mountains, the docks piled with foreign goods, the great ships at anchor in the bay or alongside the wharves, the variety of ocean-going ships, sailing vessels, steamers and battleships, the forts and batteries guarding the entrance to the harbor, the ocean itself, the sea beaches, the islands, the crowded ferries and ferry stations, the foreign populations with their peculiar dress and modes of living, the factories and shops, the parks and buildings * * *, all these and other striking objects of interest furnish an almost unequalled richness of geographical material. But the schools, as such, scarcely notice these things. On mention of this matter to several teachers, they were naively surprised at the richness of local material they had overlooked.

But these very things should furnish at least a point of departure not only for geography, but also for history and civics. Harbor and docks and merchant ships and battleships and forts and ferries and foreign populations and factories and parks and public buildings are the realities of the San Francisco child's life to which his studies should be related. The injunction in the course of study to "correlate the history work with the geography by looking up the localities mentioned" is superficial and without vitality. The pupil's own life affords the only vital coordinating principle for the various subjects of the curriculum.

In regard to hygiene the course of study says: "The study of the previous grades has been dealing largely with personal hygiene. The work of the eighth grade should deal mainly with the factors in social hygiene or public sanitation. The work should, as far as possible, correlate with the eighth grade civics." How far this idea is carried out in the classes in hygiene was not observed; in some civics classes, however, where the subject of public health was under consideration, much of the pupils' information had evidently been acquired previously in their study of hygiene.

In Bulletin, 1915, No. 17, pages 23-26, United States Bureau of Education, there are given some striking illustrations of how arithmetic may be related intimately to the life of the child and correlated with other subjects of study. There is little of this sort of thing in the San Francisco schools. A member of the survey commission reports that "not much stress is put upon the thoughtful, independent work of solving problems and of applying arithmetical processes to subjects which come up in other studies."

To conclude, the opportunities presented by history, geography, and other studies in the elementary curriculum of the San Francisco

schools for the social and civic education of the pupil are neglected. There is practically no vital correlation of these subjects around the present life interests of the pupils. The eighth-grade civics is a "crowning course" in little more than position. The term would seem to imply organized, unified, coordinated civic education throughout the grades below the eighth, to which the eighth-grade work is definitely related and which it still further coordinates and rounds out. The eighth-grade civics should be a climax in a continuous civic development of the pupil. In San Francisco this is not so. Neither pupils nor teachers seem to be conscious of a relation between it and anything that has gone before. To them it is a "new subject" for their appreciation of which the studies of the past have made little contribution.

B.—HIGH SCHOOLS.

1. *The Social-Studies Curriculum.*

Instruction in government or "civics" is prescribed for graduation in all the San Francisco high schools except the High School of Commerce, where it is elective in the second and fourth years. Courses in history and economics are offered in all high schools. Business law is offered in the High School of Commerce, and a course in vocational guidance in the Polytechnic High School. This entire group of "social studies" should as truly have a civic aim as the subject of civics or government itself.

Point of view and criteria.—The present attempt at appraisal of the instruction in the social studies is made wholly with reference to the extent to which they contribute to the education of the pupil for citizenship. Citizenship is understood in the sense defined in the introduction to this chapter, and the criteria applied are those also formulated there. (See pp. 300-301.)

Judged by the standards which have heretofore controlled in the organization of high-school courses of study in history and social science, that of the San Francisco schools would take high rank. Seldom is more elaborate provision made for these studies. Four continuous years of history and social science are now offered in all high schools of the city. The history and Government of the United States are prescribed for graduation except in the High School of Commerce. A course in economics is offered in all the schools. In some of the schools special additional courses are given.

Judged by the traditional standards of teaching these subjects, the quality of instruction in the San Francisco high schools is, generally speaking, as good as will be found anywhere, and in some cases exceptionally good.

In so far as the criticisms that follow seem adverse, it is not because of an alleged inferiority in practice in the San Francisco

schools as compared with other American high schools, but because of a serious attempt to suggest lines of constructive endeavor in the light of present tendencies.

Requirements.—The course of social studies in the San Francisco high schools is organized on the customary four-unit plan: A year of ancient history, a year of medieval and modern European history, a half-year of English history, a year of American history and government, and a half-year of economics. Two of the schools—the Girls' and the Mission—follow this plan without modification; in the other three schools there are modifications to be discussed later.

There is a presumably civic purpose in prescribing United States history and government. But since they are required only in the fourth year, they actually reach a very small minority of the pupils who enter the high schools. The one school in which they are not required for graduation is the High School of Commerce where the course of study is presumably of a particularly "practical" character, and where the vast majority of pupils finish their schooling with the high school.

In the Lowell High School all the history of the first and second years is required in addition to the United States history and government of the fourth year.

The University of California requires one year of history for entrance without prescribing what history it shall be. The prescribed United States history and government of the high schools therefore satisfies the requirements of this institution. Pupils who plan to enter and graduate from the State Normal School of San Francisco, however, must take three full years of history in the high school.

Election of social studies.—To determine the actual election of social studies information was obtained directly from the pupils of three of the high schools—the Girls', the Mission, and the Commercial. The Lowell High School was omitted from the inquiry because its pupils have so little option. The Polytechnic High School was also omitted because it is in a transition stage, and the data obtained there would not be comparable with those from the other schools.

Table 136 gives the number of pupils reporting from each of the schools. It represents about 90 per cent of the total enrollment at the time of the investigation:

Tables 137-146 show the per cent of pupils in each high school who have taken the several social studies of the standard course, of those taking no history, those having taken all history offered, those having taken only the first and last years of history, and those of the present fourth-year class who have taken the several social studies.

TABLE 130.—Pupils reporting on social studies taken (representing about 80 per cent of total enrollment).

	First year.	Second year.	Third year.	Fourth year.	Total.
Girls'.....	190	119	97	94	500
Mission.....	223	110	80	62	481
Commerce.....	133 ¹	215 ²	15	11	537
	183	133	95	144	455

¹ Pupils taking 2-year course.

² Pupils taking 4-year course.

TABLE 131.—Pupils having taken ancient history.

	Girls'.		Mission.	Commerce.	
	Greek.	Roman.	Ancient. ¹	Greek.	Roman.
First year.....	Per cent. 82.6	Per cent. 40.8	Per cent. 61.0	Per cent. 20.0	Per cent. 8.4
Second year.....	88.0	85.7	64.6	56.0	40.0
Third year.....	100.0	100.0	74.0	76.0	71.8
Fourth year.....	94.8	90.9	92.0	97.7	95.0

¹ Greek and Roman history not reported separately from this school. As a rule pupils taking Greek history also take Roman.

² Roman history is not offered until the second half of the year. Only 2 pupils in the first half reported taking it.

TABLE 132.—Pupils having taken medieval and modern history.

	Girls'.		Mission.		Commerce.	
	Medieval. ¹	Modern.	Medieval.	Modern.	Medieval.	Modern.
First year.....	Per cent. 4.2	Per cent. 76.8	Per cent. 55.0	Per cent. 45.0	Per cent. 113.0	Per cent. 7.7
Second year.....	76.8	145.3	65.0	67.0	63.6	59.0
Third year.....	79.3	71.2	68.0	67.0	63.6	59.0
Fourth year.....	84.0	80.0	87.0	84.0	80.0	61.0

¹ 9 per cent of first half-year pupils; 73.7 of second half-year pupils; 45.3 per cent for entire year.

² 9 per cent of first-half year pupils; 21 per cent of second half-year pupils; 13 per cent for entire year.

TABLE 133.—Pupils having taken English history.

	Girls'.	Mission.	Commerce.
First year.....	Per cent. 0.0	Per cent. 0.0	Per cent. 0.0
Second year.....	2.5	0	2.6
Third year.....	44.3	58.7	41.0
Fourth year.....	46.8	80.0	73.0

TABLE 140.—Pupils having taken United States history.¹

	Girls'.	Mission.	Commerce.
First year.....	Per cent. 0.0	Per cent. 0.0	Per cent. 0.0
Second year.....	0	0	17.6
Third year.....	11.3	0	14.5
Fourth year.....	98.9	100.0	64.4

¹ Required subject in Girls' and Mission High Schools, elective in High School of Commerce.

² All 4-year pupils.

TABLE 141.—Pupils having taken economics (third year).

	Girls.	Mission.	Commerce.
	Per cent.	Per cent.	Per cent.
First year.....	0.0	0.0	0.0
Second year.....	0.0	0.0	1.2
Third year.....	22.6	41.0	10.9
Fourth year.....	44.8	80.0	44.0

¹ One pupil.

² 4 per cent of first half-year pupils; 40 per cent second half-year.

³ All 4-year-pupils.

TABLE 142.—Pupils having taken fourth year government.¹

	Girls.	Mission.	Commerce.
	Per cent.	Per cent.	Per cent.
First year.....	0.0	0.0	0.0
Second year.....	0.0	0.0	0.0
Third year.....	1.0	0.0	0.0
Fourth year.....	97.5	100.0	35.0

¹ Required in Girls' and Mission High Schools, elective in High School of Commerce.

² Per cent of second half-year pupils; none take it below this.

TABLE 143.—Pupils having taken no history.

	Girls.	Mission.	Commerce.
	Per cent.	Per cent.	Per cent.
First year.....	16.0	39.0	78.0
Second year.....	8.0	28.0	42.0
Third year.....	0.0	6.0	11.0
Fourth year.....	1.0	0.0	0.0

¹ One pupil.

TABLE 144.—Pupils having taken all history offered.

	Girls.	Mission.	Commerce.
	Per cent.	Per cent.	Per cent.
First year.....	0.0	0.0	0.0
Second year.....	0.0	0.0	0.0
Third year.....	4.0	0.0	11.8
Fourth year.....	39.3	70.0	40.0

TABLE 145.—Pupils having taken only ancient and United States history.

	Girls.	Mission.	Commerce.
	Per cent.	Per cent.	Per cent.
First year.....	0.0	0.0	0.0
Second year.....	0.0	0.0	0.0
Third year.....	0.9	0.0	0.0
Fourth year.....	10.6	6.4	4.4

TABLE 146.—Pupils of present fourth-year class who have taken the several social studies.

	Greek.	Roman.	Medieval.	Modern.	English.	Economics.	United States.	Government.
	Per cent.	Per cent.	Per cent.					
Girls' High School.....	96.8	96.8	84.0	80.0	45.8	40.8	98.9	97.5
Mission High School.....	92.0	92.0	87.0	84.0	80.0	80.0	100.0	100.0
High School of Commerce.....	97.7	95.0	80.0	64.0	73.0	46.0	64.4	35.0

Unfortunately no data are available from other cities comparable with those in the foregoing tables. The impression is, however, that the social studies, and especially history, receive fully as much emphasis in San Francisco as elsewhere, and probably more than is usual. This is especially true if the Lowell High School is taken into account, where the history courses of the first, second, and fourth years are required of all pupils.

As would be expected, the smallest election of ancient history is found in the High School of Commerce, the largest in the Girls' High School. But when we come to European and English history, the lead passes from the Girls' to the Mission High School.

English history shows the lowest election, except in the High School of Commerce, where the lowest election is for United States history. The latter is required in the other two schools.

Economics is not popular as compared with the history courses, and is least popular in the High School of Commerce, where it would seem to have especially practical applications. The lowest election for any social study is that for government in the High School of Commerce, where alone it is elective.

The assertion is frequently made that, where four years of history are offered, it is rare that pupils take it all, and that the courses elected are likely to be widely disconnected. The facts shown in Tables 144 and 145 are therefore somewhat surprising. An unexpectedly large percentage of the pupils in the last years of the high school have taken all the history offered in the high school, and the number whose courses show a break from ancient to United States history is very small.

Table 146 shows that all but a few pupils of the present fourth year class have had ancient history (about 95 per cent), while the percentage having had each of the succeeding social studies progressively declines until the required fourth year work is reached.

Another fact shown by these tables is that the percentage of pupils taking each of the several social studies steadily increases by classes from the first to the fourth year. Thus: In the Mission High School 61 per cent of the first year pupils are taking ancient history, 64.6 per cent of the second year class are taking or have had this subject, 76 per cent of the third year class have had it, and 92 per cent of

the fourth year class. The same relation holds true for each of the social studies and for all the high schools (Tables 137-141, 143). Does this suggest that pupils who do not elect social studies in the early years are more likely than others to be eliminated before graduation? No such conclusion is justified from the data at hand, but the question is a suggestive one and worthy of investigation.

In the Lowell High School the social studies of the third year alone are elective (except for a half-year course in "recent history" in the fourth year). The third years' studies are European history (entire year), English industrial history (one-half year), and economics (one-half year). Prior to this there are *required*: In the first year, a half year of "ancient industry and life" and a half year of English history; in the second year, an entire year of ancient history (Greek and Roman). The third year elections in this school in the fall of 1916 were as follows:

European history.....	58 per cent of the class.
English industrial history.....	15 per cent of the class.
Economics.....	20 per cent of the class.

This does not mean that 93 per cent of the class are taking a social study, for there are duplications here, a considerable number of those taking English industrial history and economics also taking the European history.

The economics and industrial history are less popular than the economics in the Girls' and Mission High Schools, though more so than that in the High School of Commerce (see Table 141). So, also, the European history in this school shows a smaller election than in any of the other three schools (see Table 138).

Summary.—The above facts show (1) that the offering of social studies signifies little regarding their election; (2) that ancient history is apparently considered of greater importance than later history (England and Europe); (3) that although United States history and government are required for graduation, it is only a select minority of the pupils entering high school who get the benefit of these subjects; (4) that a large number of pupils drop out of school without the training afforded by social study; and (5) that study in the field of economics is attained to by a mere handful of the pupils who enter and pass out of the high school.

Adaptation of social studies to group interests.—A more difficult, and at the same time a more important, question is, To what extent are the social studies offered in the high schools adapted to the actual needs of the pupils who take them?

(1) *The High School of Commerce.*—This school is designed primarily for pupils preparing directly for business vocations. While a college preparatory course is offered, comparatively few of the

pupils are planning to go to college, as the following table shows (Table 147):

TABLE 147.—College preparatory pupils—High School of Commerce.

	First year.	Second year.	Third year.	Fourth year.	Total.
Number reporting.....	519	338	110	45	1,012
College preparatory.....	20	21	14	8	63

Generally speaking, the economic status of the pupils is low. The majority of those reporting do not expect to complete a four-year course, and for the benefit of such, a two-year course is offered. The enrollment in the two courses is as follows (Table 148):

TABLE 148.—Enrollment by two-year and four-year courses—High School of Commerce.

	First year.	Second year.	Third year.	Fourth year.	Total.
Two-year course.....	336	205	15	1	557
Four-year course.....	183	133	93	44	453

¹ The 15 two-year course pupils in the third year are probably repeaters. The 1 in the fourth year is unexplained—perhaps an error in reporting.

In a school of this type, if anywhere, there would be expected an adjustment of the course of study to the special requirements of the pupils. It would seem to be peculiarly desirable to give a special civic as well as a vocational turn to their education—not because such boys and girls need civic training more than other groups, but because most of them will complete their schooling with the high school—in the majority of cases with only two years of high school—and will enter at once into the responsibilities of participation in the community's business life.

An attempt at such adjustment is apparent. The school offers the standard four-year course of social studies. But in addition, and for the especial benefit of two-year pupils, elementary courses in business law, economics, and government are offered in the second year, optional with the course in European history. In this school alone the United States history and government of the fourth year are elective, perhaps to allow pupils greater freedom to elect subjects of more technical importance.

The four-year course of study is organized into a number of curriculums or group arrangements. Groups I and II are college preparatory, and in the first year include English, mathematics, a foreign language, and history, differing from each other in that one

includes stenography and typewriting, the other bookkeeping, arithmetic, and penmanship. Groups III-V all include English, stenography, typewriting, bookkeeping, penmanship, and arithmetic. They differ only in the language offered—French, German, or Spanish. Group VI is like Groups III-V except that history is offered instead of a language. Group VII offers mathematics instead of a language or history, and Group VIII offers general science. It is understood that a pupil may change from one group to another.

Ancient and European history occupy a less important place in this school than in the other schools, as might be anticipated. Table 149 shows the elections in Greek and medieval history as compared with the Girls' and the Mission High Schools.

TABLE 149.—Pupils taking Greek and medieval history in High School of Commerce, Girls', and Mission Schools.

High schools.	Greek history.		Medieval history.	
	Number.	Per cent.	Number.	Per cent.
High School of Commerce:				
Two-year pupils.....	173	31.0	23	10.0
Four-year pupils.....	248	54.5	129	47.0
Total.....	421	41.6	152	30.8
Girls' High School.....	450	90.0	266	79.3
Mission High School.....	330	68.6	171	68.0

Although the courses in business law, economics, and government offered in the second year would seem to be more in accord with the requirements of the pupils than the ancient and European history, Table 150 shows that there is a larger election of Greek history among both two-year and four-year pupils than of the more "practical" subjects. The same is true of the election of medieval history by four-year pupils, though not by two-year pupils.

TABLE 150.—Pupils having elected Greek and medieval history and second-year law, government, and economics.

	First year.			Second year.			Third year.			Fourth year.	
	Two-year pupils.	Four-year pupils.	Total.	Two-year pupils.	Four-year pupils.	Total.	Two-year pupils.	Four-year pupils.	Total.	Total.	
	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	
Greek.....	18.7	23	20	48.0	67.0	56.0	66.6	78.0	78.0	67.7	
Medieval.....				9.0	21.0	18.0	26.6	69.0	63.6	52.0	
Law.....				42.4	12.0	30.7	33.3	8.4	11.8	4.4	
Government (second year).....				28.0	6.8	16.0	33.3	8.4	11.8	4.4	
Economics (second year).....				12.0	5.2	9.0	33.3	4.2	8.1	4.4	

* All four-year pupils.

Tables 151 and 152 show the number of two-year pupils who elected ancient or mediæval history, or both, without taking any of the other social studies offered in the second year; and the number of two-year pupils who elected no social study at all.

TABLE 151. *Two-year pupils in High School of Commerce electing ancient or mediæval history or both, but no other social study.*

First year		Second year		Third year		Fourth year	
Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
(0)		101	49.0	7	46.6	(0)	

¹ No pupils in the first year elected social studies other than history.

² One pupil reported to be a two-year pupil in the fourth year took ancient history and no other social study, but he is not considered here.

TABLE 152. *Two-year pupils in High School of Commerce electing no history or other social study.*

First year		Second year		Third year		Fourth year	
Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
(0)		26	12.6	4	26.6	0	0

¹ No other social studies than history taken by any pupils in this year.

Of the 45 pupils reporting from the present fourth-year class, 29 have taken United States history. All of these are four-year pupils, and five of them college preparatory. Sixteen out of 110 third-year pupils also report taking United States history. No United States history is offered in the two-year course. Seventy-three per cent of the present fourth-year class, and 41 per cent of the present third-year class report having taken English history. Only four two-year pupils are included in the number.

The only pupils in the entire school who report having taken the fourth-year course in government are 7 of the 45 members of the present fourth-year class. Only 70, or 14 per cent, of all pupils reporting from the classes above the first year report taking the second-year course in government.

Thirty-three, or 21 per cent, of the third-year and fourth-year pupils report taking the third-year course in economics (only one pupil below the third year reports taking it). Forty-three, or 8.7 per cent, of all pupils reporting from the classes above the first year report taking the second-year course in economics.

The percentage of pupils from each class having taken business law is shown in Table 150. It is a total of 24 per cent of all pupils reporting above the first-year class.

No courses in industrial history or commercial geography are offered in the school.

Thus, while the course of social study in this high school has been modified considerably because of the special nature of the school, the facts given suggest the desirability of further adjustment to the special needs of the pupils. Recommendations to this effect are made below on pages 337-339.

(2) *The Lowell High School.*—This high school is the largest in the city, having an enrollment of more than 1,300 pupils, boys and girls. It is situated in a good residence district where there is very little foreign admixture. The economic status of the pupils is of a high average.

The school is in some respects the most conservative in the city. Its course of study is more largely prescribed than in other schools (see above, pp. 319, 323). The school might fairly be described as a "standard" high school of high grade with conservative tendencies. If there is any school in the city where the standard four-unit course in history and social science might be expected to meet requirements, it should be the Lowell school. At two or three points, however, noteworthy modifications of the standard course have been made.

(a) The regulation Greek and Roman history courses have been taken out of the first year. Instead, there is required of all pupils in the first half of the first year a course in "ancient life and industry." It is described as "a preparation for the study of history," and seeks to suggest the meaning of history and to give a general picture of past conditions. In the second half of this year the history of England is taken up. Here the pupils are introduced to the study of a single nation—"the one nearest the pupil's interest after his own country."

(b) Ancient history is required of all pupils throughout the second year instead of the first, and in addition to the introductory course in "ancient life and industry." Pupils entering from other high schools are allowed to substitute an equivalent for this course, however.

(c) In the third year, the pupil may take a social study or not as he chooses. If he takes one, he is given an option between a year of European history (medieval and modern) and a year of English industrial history and economics.

(d) In addition to the required course in United States history and government there is offered in the fourth year a course in "Recent history" for one-half year, two hours per week.

These modifications of the standard course are avowedly to meet more closely the needs of the pupils.

(3) *The Mission High School.*—This is the smallest high school in the city, with an enrollment of less than 600 pupils, although it

is located in one of the most densely populated parts of the city where the elementary schools are said to be crowded. The people are largely of the wage-earning classes, but no technical work is given in the school. The Humboldt night school is held in the Mission High School building with an enrollment of 1,200 or 1,400 students, and with technical instruction.

The course of social study in this school is of the straight traditional type, with no evidence in its organization of any effort to adapt the work to group needs.

(4) *The Polytechnic High School.*—In this technical school there were, until a year and a half ago, but two courses in history: A course in "general history" in the first year, and a course in United States history and government in the fourth year. This has now been changed, with the intent not only of increasing the amount of work offered, but also of adapting it to the purposes of the school. "General European history" is now given throughout the first two years, embracing ancient and modern history. Economics and industrial history are offered in the third year. United States history and government are required in the fourth year. There is no course in English history to correspond with that in the other schools.

No class in economics was formed this term, and only 22 pupils are enrolled in the class in industrial history. This is explained on the ground that under the reorganization these courses have not been fairly started. It is said that hereafter there will be classes in both subjects each term.

A course in vocational guidance is required of all first-year pupils in this school.

(5) *The Girls' High School.*—The straight four-unit course in history, government, and economics is offered in this school, as in the Mission High School, without modification.

II. Methods of Instruction.

1. *Instruction in government.*—The general impression obtained from observation is that instruction in this subject is formal, closely bound by the textbook, too purely informational. There is more or less coordination with United States history, in some cases the government and history being carried together throughout the entire fourth year. One or two recitations were observed in which this correlation seemed to be especially vital. In some of the schools considerable attention is given to State and local government, but even this part of the work is formal and lacking in real vitality in most cases.

Opportunity for actual observation of class work in this subject was so limited that a series of questions was submitted to the principals of the five high schools. Returns were received from four

of the five, in each case signed by the head of the department of history.

Textbooks.—Three reported the use of the same regular text in civil government, separate from the history text; one reported the use of a combined American history and government text. Three of the four made objections to the text, the fourth made no comment on this point. The comments made were “insufficient local material,” “too general,” “not practical illustrations,” “not clear and definite,” “do not interest the student,” “not written for those who must be shown both the beginnings and the relations of things,” “a book should be used which technically describes the State in which the pupil lives, also his city.”

Supplementary books.—A considerable list of supplementary books was mentioned, including such standard works as Bryce’s “American Commonwealth” and other well-known texts in American government. Mention was made in one case of a California civics text, the constitution of the State, the charter and ordinances of San Francisco, and in one case a dictated notebook on the Federal Constitution. The extent to which, and the methods by which, these materials are used was not explained.

Time allotment.—All agreed that the time for the study of government should be doubled—a year instead of a half year. As to the possible means of securing this additional time the following suggestions were made:

Since United States history is given in the grammar grades, it could be omitted in the high school, or it could be given in the third year in place of English history and the entire fourth year given to government.

A compulsory course in municipal government might be placed in the first year.

More complete separation between government and United States history.

Time allotment for taking classes outside for investigation. Lectures and talks by public officials.

The apportionment of time as it now is and as it should be among National, State, and local government is stated as follows:

Apportionment of time.

	As now apportioned.				Suggested apportionment.			
	Girls' High School.	Commercial High School.	Polytechnic High School.	Mission High School.	Girls' High School.	Commercial High School.	Polytechnic High School.	Mission High School.
National.....	Per cent. 40	Per cent. 25	Per cent. 90	Per cent. 50	Per cent. 25	Per cent. 60	Per cent. 40	
State.....	10	25	5	30	25	15	30	
County.....	50	25	5	20	25	25	30	
City.....								

These figures are intended to be only approximate. The striking thing about them is the divergence among the high schools in practice and in opinion. Variation is a good thing in so far as it indicates adaptation to group needs; but there is nothing to indicate that this is the explanation here. It indicates rather a lack of cooperation and agreement among the high schools as to some general policy.

Devices to supplement instruction.—Two schools report the use of civic scrap books; 2 regular drill in current events; 3 more or less debate and discussion of public questions; 3 the use of the "Literary Digest" or similar publications; 3 suggest talks by public officials as a desirable thing, but none provides for them; 1 mentions visits to courts and public offices; 1 (Girls' High School) the use of newspapers, municipal records, ordinances, etc.; and 1 (also the Girls' High School) the securing of ballots and a demonstration of their use.

Field investigations, surveys, etc.—Three schools report no field investigations, no surveys of sanitary or other conditions, no systematic study of health reports, appropriation bills, or similar documents. One school reports field investigation "by attendance upon public functions of various kinds," the study of appropriation bills, and sanitary surveys.

Adequacy of course.—One school reports satisfaction with its course; the other three say that "it comes too late in the course," "not sufficient time nor opportunity," "more dignity and attention should be given the course."

The above data suggest that there is a feeling that the instruction in government does not accomplish all that should be expected of it; that it is formal and of the textbook type; that there is considerable divergence in methods, not by reason of adaptations to group needs, but because of lack of agreement as to general principles; that there is almost no field work or contact with actual conditions and problems of community life, the only school reporting such work being the High School of Commerce, where there is an exceptionally small enrollment in the courses in government.

2. *Instruction in history.*—One teacher of history, commenting upon a recitation by her class, remarked that she and her class were much more interested in present-day questions than in the mere facts of history, and asked, "What is the value of history unless it throws light on present-day questions?" Her class was at the time studying colonial Massachusetts, and more particularly the extent to which democracy had been realized in that colony. The class distinctly seemed to have a motive for the inquiry into colonial times, and this was their interest in certain present questions upon which the historical facts seemed to throw light. The impression made by

the discussion was that the class had under consideration a present-day question that had a history. They were not following a mere chronological sequence of events, but were involved in a problem. Use was being made of material in portions of the textbook dealing with later periods in order to trace successive steps in the evolution of democracy. Not only was the problem one of the present day, but it was of peculiar interest to these pupils at this time because a political campaign was in progress and because in California the women vote and other advanced ideas of democracy prevail. In fact, the girls of the class showed, perhaps, a keener interest than the boys present. A casual visitor would have had difficulty in determining whether the recitation was one in history or in civics; it was both. The pupils were not concerned about the "subject" they were taking; they were interested in a problem that has historical, social, and civic aspects.

In contrast, the pupils in another class were haltingly repeating the inconsequential details of the reigns of the minor emperors in the decadent period of the Roman Empire, and in another the succession of kings in ancient Egypt was being given, with scraps of information relating to the social and political life of the time. These were pure memory exercises, based on what happened to be included within certain pages of a textbook.

A common practice in many history recitations is the frank use of a notebook as a basis for recitation, the pupil referring to it frequently and even reading from it in reply to questions by the teacher. The matter in the notebooks seemed to be little more than a reproduction of textbook material, probably copied in the process of "studying."

Between the two extremes of method illustrated above, classes were visited in which no exception could be taken to the excellence of the teaching as measured by formal academic standards. The pupils were apparently learning the facts of history, not even greatly restricted by the limitations of the textbook. But with few exceptions, there was lacking the vital spark which characterized the first recitation described. Learning history seemed to be the end of all things; it was the "subject" that seemed to count for most, while its application to the pupil's understanding of his own life situations was lost sight of.

3. *Instruction in economics.*—In all of the high schools of San Francisco the election of economics is lower than for any other social study. There is, however, a growing sentiment in favor of the subject as a high-school study because of its intensely "practical" nature both from an individual and a social standpoint. The new emphasis upon vocational and prevocational education would seem

to give to economics a peculiar importance, and especially so in commercial and technical high schools.

The low election of economics, which is probably no more marked in San Francisco than elsewhere, is doubtless due in part to the fact that this subject is the latest social study to be introduced in the high school and has been wedged into an already full curriculum. It is in competition with history, which is strongly entrenched. Departments of social study have been almost exclusively departments of history, and any subject that threatens the elimination or curtailment of the history course has to make a hard fight.

Most of the work in economics seen in the San Francisco high schools was either of a perfunctory character, little more being attempted than to drill the pupils in the contents of a textbook, or else it gave the impression of floundering. One or two notable exceptions will be referred to. Indifference and apathy marked classes which were being put through a catechism of questions such as, What is economics? What is wealth? What is value? What is utility? Or those which were discussing in the abstract such matters as the "factors in production."

One class was visited in which the teacher had abandoned the prescribed textbook and was attempting to substitute a course on more broadly "sociological" lines. The pupils were reading aloud in turn from a recently published book dealing with a variety of modern social problems. The teacher was uncertain of her ground, as she herself frankly said, and the class evinced no great interest in what they were doing. This teacher felt deeply the need of a really vital course for her class of girls, and was rather hopeless in the face of the textbook problem.

Another teacher reported having attempted for a time to teach without a textbook. The results, she said, were in many ways satisfactory, but the method proved too laborious and time consuming to be continued.

Of the classes actually observed in recitation there was but one to which the subject of economics seemed to be a living thing. The pupils in this class were discussing with their teacher a question of vital importance to themselves and their families, viz, the cost of living. No textbook was seen, though the teacher said one was used, more as a supplement than otherwise. The boys and girls were contributing facts from their experience at home and from observation and current reading. These facts were the basis of discussion. They were not studying a science, much less a book; they were wrestling with a reality in their own experience, drawing upon the science of economics under the guidance of their teacher as it helped them to understand their problem.

4. *Instruction in business law.*—This subject is taught only in the High School of Commerce, and but one recitation was observed. Of the 34 pupils in the class, 27 were taking a two-year course, 5 a four-year course, 2 were undecided. The same general criticism may be made of the recitation observed as of the instruction in other social studies: It was not closely enough related to the experience and needs of the pupils. The topic under discussion was "Contracts." The discussion was a simplified form of what one might expect to hear in a law school. One could not help wondering why the point of departure should not have been the very real and imminent fact that most of these pupils would within a year be seeking a "job" and entering into a more or less formal "contract" with an employer; and why the whole matter of the relations between themselves and their future employers, the responsibility of each to the other and of both to the community, and similar matters could not have been "talked over" on all sides in a thoroughly concrete and realistic manner.

5. *Summary.*—Instruction in the social studies in the San Francisco high schools has too exclusively for its end the storing up of information for its own sake; it places too much faith in the pupils' ability to apply this information to situations as they arise in the future and fails to give practice in applying it to situations of present interest and importance to the pupil and his community; it does not make a sufficient point of helping the pupil to organize already existing knowledge or knowledge that he may acquire by observation; it does not really get at the pupil's motives, either for present study or for present and future conduct. In short, the instruction in the social studies affords very little real training for citizenship except in so far as imparting information of a formal character may contribute to this end.

C.—ORGANIC CONTINUITY OF ELEMENTARY AND SECONDARY INSTRUCTION IN THE SOCIAL STUDIES.

Reference is made above on page 318 to the lack of organic continuity in the civic education of the child in the elementary school. The absence of such continuity in the secondary school and between elementary and secondary instruction is equally striking.

One high-school teacher suggested that inasmuch as United States history is taught in the grades, it might be dropped from the high-school course of study (in order to provide more time for the study of government). While it is not uncommon for pupils to question the value of taking United States history in the high school on the ground that they have "had it" in the grades, it is a little surprising that a high-school teacher of history should take this position. The fact is apparently lost sight of that the pupil himself

is growing, that his mental and social interests and experience have broadened and deepened with the passage of each year, and that in the high school he is able not only to comprehend more facts of history than in the earlier period but that he is also able to use already acquired facts in his processes of growth as he could not use them earlier. The later course affords opportunity for a necessary revision of concepts and judgments in the light of more mature experience.

There is, however, no likelihood that the high-school course in United States history will be dispensed with. The point now is with reference to the relation that exists between it and the course in the same subject in the elementary school. As a matter of fact the former is very largely a duplication of the latter as implied by the teacher quoted above—a duplication excused largely on the ground that pupils do not remember what they learned in the grades below anyhow, or that they were not well taught.

If the pupil forgets what he learned of United States history in the elementary school before he reaches the last year of the high school, it may be due in part to faulty methods of teaching; but it is more especially because he has had no use for it in the interim. The knowledge and thinking power acquired by the pupil at one stage of his education should be conceived of as working capital in each succeeding stage, and should be used as such. In the case of United States history, for example, there is abundant opportunity for such continuous use of acquired knowledge. It may be used in the community civics of the last half of the eighth grade; in the various history courses of the high school by way of comparison or contrast; in economics; and in the work in English. The historical capital of the pupil thus becomes an investment, productive from the start, and continually growing by use. It is made to enrich the pupil's work in other studies. And, finally, it affords a real foundation in the pupil's consciousness upon which to build a course in American history in the fourth year of the high school of vastly richer content and scope than would otherwise be possible.

What has been said regarding United States history is equally applicable to the other social studies. One high-school teacher, when questioned about the eighth-grade work in civics, made the typical reply, "I don't know what they are doing, but I suppose about the same thing that was done when I went to school." Manifestly no vital continuity in the pupil's social education, of the kind suggested in the last paragraph, could be looked for under such conditions. Pupils in some of the third-year economics classes were questioned as to whether they had ever before had any economic study. The replies were in the negative; economics does not "come" until the third year. And yet geography, history, civics, and other subjects

in both elementary and high schools teem with opportunities to emphasize economic concepts. It is apparent that these opportunities are not utilized to any appreciable extent; and when the few pupils who elect economics come to it in the third year it is as a wholly new experience with no relation to anything that has gone before or that is to come afterwards.

It is important that the course of study for early grades should be carefully planned with due regard to what is to follow later; but it is vastly more important that the instruction given in the later years should grow directly out of that which has gone before and which has been woven into the pupil's experience.

Cycle organization of the social studies.—In order to secure the desired organic continuity and cumulative effect of the civic training afforded by the social studies, and at the same time to insure a maximum of completeness in the social study of pupils who leave school at various points before graduation, a "cycle" organization of the social studies offered in both elementary and secondary schools is recommended. This is in conformity with the recommendation of the committee on social studies of the National Education Association as contained in the report of the committee issued by the United States Bureau of Education in Bulletin, 1916, No. 28. The plan, however, should be carefully adapted to local conditions in San Francisco.

The first cycle should embrace the first six grades of the elementary school; the second, Grades VII-IX; the third, Grades X-XII.

Elementary cycle: Grades I-VI.—No radical change in the course of study of this period is needed, but merely slight readjustments, shifting of emphasis, new correlations. As now, elements of both European and American history should be included, and the American history should include local history. Civics need have no separate time allotment, but, if made, it should not be earlier than the fifth grade. All through the period geography, history, and civics should be treated less as distinct subjects and more as aspects of the same life problem, organized with definite reference to each other and to the actual life of the pupil. (See p. 316.)

Any plan that is adopted should be flexible and carefully adapted to local requirements. But a suggestive organization may be found in United States Bureau of Education Bulletin, 1915, No. 17: "Civic Education in Elementary Schools as Illustrated in Indianapolis." Philadelphia and Cincinnati are other cities with suggestive plans which differ in detail from that of Indianapolis.

For suggestion for the organization of the work of the first three or four grades without emphasis upon "subjects" see Bulletin, 1915, No. 17, pages 9-13, United States Bureau of Education.

Geography in particular should be relieved of its formalism and by the sixth grade studied largely by the "problem method." (See Bul., 1916, No. 28, pp. 18-20, U. S. Bu. of Educ.)

Occupational life and certain elementary economic ideas should be emphasized throughout. This is the forerunner of more systematic economic study of later cycles. The new Philadelphia plan emphasizes this aspect of the work especially in the sixth grade. See also the Cincinnati plan, where there is a "Civic and vocational director"; and also Bulletin, 1915, No. 17, pages 13, 14.

Emphasis upon civic relations and concepts should constantly increase with a climax in the sixth grade. (See Bul., 1915, No. 17, pp. 10-16.)

Junior cycle: Grades VII-IX.—The same range of social study should be included as in the elementary cycle: geographical, historical, civic, economic. It should be on a higher plane and with new angles of approach.

Seventh grade.—Development of certain threads of European history that culminate in the period of discovery, exploration, and colonization, which should be included in the course.

The geography should relate directly to the history of the grade, in which it is a vitally important factor. Both the history and the geography afford opportunity for the emphasis of economic relations.

The civics of the grade may or may not have a separate time allotment. Many of the topics of the earlier part of the eighth-grade civics course may profitably be taken up in connection with the exploration and colonization of America. Much time may thus be saved for the eighth-grade civics.

In connection with all these subjects local history has rich opportunity, especially in California.

Eighth grade.—American history from approximately the year 1700, either completed in the first half of the year or parallel with civics throughout the year. The point of view should be that of the development of the "national community," and the concepts should be correlated closely with those of the civics.

The geography of the year should relate directly to the history. Emphasis should be given to international aspects of our history and geography, and especially in this grade to South American relations.

Community civics should have an important place in this grade as at present, but it should be thoroughly reorganized to conform in its point of view, spirit, and methods with the "community civics type" which is clearly implied in the printed course of study and which is discussed in this report. (See pp. 304, 308.) A more detailed discussion of the organization and methods of the subject may

be found in United States Bureau of Education Bulletin, 1915, No. 28, and 1916, No. 28, pages 22-24. This reorganization will be aided by adopting the recommendations relative to administrative reorganization. (See pp. 314, 366.)

Many pupils will probably continue to leave school at the end of the eighth year. For such, the course in American history, geography, and civics should in reality be a "crowning course." It is believed, however, that an eighth-grade course organized on the plan suggested will tend to keep larger numbers in school at least for another year. This, in fact, should be one of the primary aims of the eighth and ninth grade work.

Hygiene, especially of the community type, has place in this grade. Close correlation should be made not only with the civics and geography, but also with the physical and recreational activities of the school.

Vinik grade.—The present traditional ancient-history course should be dropped, except possibly as an elective for such pupils as have a distinct preference for classical study (they would be few in number) or who may still be required to take such a course for entrance to particular colleges. Even then it should be reorganized with special reference to the interests of the pupils, and perhaps offered later in the course.

There are various possibilities for social study in this year that are preferable to the traditional ancient-history course. Some such plan as that now in use in the Lowell High School in the ninth year is an improvement. But a new course, primarily of a civic-economic character, is here recommended. Arguments in favor of such a course are given in United States Bureau of Education Bulletin, 1916, No. 28, pages 26-28, 32; other possible lines of development are also suggested there (pp. 25, 26).

A study of the civic-economic type is peculiarly desirable in the High School of Commerce, especially in the two-year course, and in the Polytechnic High School. It should be organized largely around the vocational interest which is likely to be strongly developed in the pupils of these schools. It could be made to fulfill the purpose of the course in vocational guidance now required in the Polytechnic High School, but with better perspective and broader scope. In the High School of Commerce this course, together with a course in the tenth year mentioned below, should take the place of the present courses in second-year economics and business law.

Whatever the direction taken by the ninth-year social study, it should at all events be in reality a "crowning" course for the cycle, affording opportunity for the pupil to use the capital acquired in

earlier courses; and it should also afford a point of departure for the social studies of the succeeding cycle.

The difficulty presented by the lack of suitable textbooks for such a course is clearly recognized; but the importance of the change is sufficiently great to warrant a beginning.

Senior cycle: Grades X-XII.—As in the case of the ninth-year work, the difficulties presented by the lack of appropriate textbooks and by the influence of traditional methods are considerable. The following recommendations indicate the direction of immediate endeavor.

Heads of departments of social study should take the initiative in reorganizing, in cooperation with their teachers, the courses of social study in the last three years of the high school in the spirit, at least, of the suggestions here made.

At least until suitable textbooks are forthcoming, greater independence of any single text should be cultivated and a variety of books used by the pupils in their reading.

Tenth year.—Except in the two-year course of the High School of Commerce, which is referred to below, a course in European history to approximately the year 1700 should be offered in the tenth year (second year high school). This course should include whatever is necessary of ancient history, on the one hand, and the period of exploration and colonization of America at the other extreme. It should also include the history of England. This course should differ from the old "general history" courses in its organization. The latter is merely a summary statement of facts and events in chronological order. The course proposed should be organized on a topical or problem basis. It necessarily and happily implies the omission of much that has been taught in ancient and European history and the selection and organization of subject matter with reference to current interests, and largely on the basis of the pupils' experience in connection with the social studies of the preceding cycle. (See U. S. Bu. of Educ. Bul., 1916, No. 28; pp. 35-52.)

In the two-year course of the High School of Commerce it is suggested that a course in American history, rather than in European history, be given in the tenth year, which is the last year of the pupil's schooling. In this course especial attention should be given to economic aspects, including the progress made by government in dealing with economic and socio-economic problems.

Eleventh year.—In all four-year courses in the several high schools a course in European history since, approximately, the year 1700 should be offered at least in the first half of the eleventh year, though it might profitably include the entire year if time can be found for it. It should include the English history of the period.

If the European history of this year is restricted to one-half of the year, a course in American history may be begun with the second half of the year, in which large emphasis might well be placed upon international relations, including relations with South America. The geographical, economic, and political factors should be emphasized, and the whole related clearly to the pupils' earlier study.

Twelfth year.—It is intended that the work here recommended for the twelfth year, together with that of the eleventh year suggested above, entirely supplant the independent courses in economics and government now offered in these two years.

It is urged that an attempt be made to develop a new course in "Problems of democracy" for this year; a course that will be concrete, and that will deal with current problems that have economic, political, and more broadly sociological aspects. A further explanation and justification of such course is given in United States Bureau of Education Bulletin, 1916, No. 28, pages 52-56. So far as known, there is no suitable textbook available as a basis for such course at present. It is recommended that a committee of high-school teachers, including heads of departments, be appointed to develop such a course experimentally, and that it be tried out in at least one of the high schools.

Such course will not supplant a course in American history, but will make the latter much more effective. Two methods of handling the American history are suggested: Either devote the first half of the twelfth year to a course in American history, or to a continuation of the course begun in the eleventh year, and of the general character suggested for that of the eleventh year, reserving the second half of the twelfth year for the problems of democracy; or, what is in some respects preferable, give the entire year to problems of democracy, developing the historical aspect of these problems coincidentally.

No separate courses in industrial history, either American or English, is recommended. But the industrial or economic aspects of history should receive due emphasis in all history courses in relation to other aspects. In the High School of Commerce and in the Polytechnic High School the economic aspects of all history should be especially emphasized, but not to the neglect of their relations to political and social development.

PUPIL ACTIVITIES AS A MEANS OF CIVIC EDUCATION.

A.—ELEMENTARY SCHOOLS.

Conduct of classes.—The preparation of lessons and the conduct of recitations afford opportunity for activity that in itself may have civic educational value. Reference has already been made (p. 312).

to the value of pupil activity in assembling and organizing materials for class use. With due allowance for exceptional cases, there is in San Francisco a certain passivity on the part of pupils in the classroom; little of the "give and take" of discussion; little of the alertness to contribute new materials and new points of view for consideration. Initiative and group action are not systematically cultivated. A class community has all the essential characteristics of any other community, and its conduct should afford practice in community living. This should be true of classes in all subjects, but it has peculiar value in relation to instruction in civics.

Opening exercises.—Reports from 68 schools indicated that the salute to the flag, the pledge of allegiance to State and Nation, patriotic songs and recitations, and talks on moral, civic, or patriotic topics are quite general in the opening exercises. But little use is made of the assembly as an opportunity to train pupils in the exercise of responsibility, initiative, and cooperation in organizing and executing the program.

Pupil participation in school government.—No formal organization exists in any of the elementary schools of San Francisco for purposes of "self-government"—nothing on the order of the "school city," for example, or the "school republic."

Principals showed a divergence of opinion as to what constitutes self-government. The comments of some who said they had none in their schools indicated that they really had more than other principals who claimed to apply it in some measure. One refers to a pupil-monitor system as a form of self-government, while another speaks of the fact that "no monitors are allowed" in her school as equally good evidence of it. Many point to the formal order of the "yard lines" passing at recess under the leadership of pupil "line captains" who are chosen by the class; while much less frequently the informal passing of classes through the corridors with no "line formation" and no obtrusive supervision, but nevertheless in orderly quiet, was offered in evidence of pupil responsibility in the discipline of the school.

A very common statement was that the pupils were "taught to be self-respecting," or "to practice self-control." The golden rule was given as the guiding principle in one or two instances. Several mentioned an "honor system" under which it is possible for classes to be left without teachers without disastrous results. Pupil captaincy of athletic teams and management of games on the playground, and solicitude of older pupils for the rights of younger children at play were occasionally mentioned. In a few cases some systematic responsibility for the care of blackboards, room decoration, the protection of walls, furniture, toilets, etc., against defacement is bestowed upon pupils. In the Ethan Allen Parental School there

seemed to be a systematic effort to develop pupil responsibility for the orderly running of the school. In this school the truancy problem is handled, according to the principal, almost wholly by the pupils themselves, not by a system of espionage, but through persuasion and friendly advice to delinquents by their friends who have come to take pride in their school. The observer saw a new pupil enter the school in tears. He was turned over almost immediately to some boys who were near at hand, who seemed to remove his terror at once, instructed him as to his first steps, and took him to his bath. A half-hour later the newcomer was seen participating in playground exercises with a smile of contentment on his face.

In the Oriental School (all Chinese), graduates from which are said to have had a part in establishing the Chinese Republic, the teacher of civics said that attempts at self-government were wholly misunderstood. She gave by way of illustration the instance of a pupil who replied that "he was not a slave" when requested to clean the blackboard; and that of another who complained of being "treated like a dog" when asked to perform some slight service.

The degree in which responsibility is consciously shared by pupils is usually very slight and often qualified by rather rigid supervision. Or it is shared by a very few pupils rather than by all pupils. In one or two instances evidence was seen of purely arbitrary discipline, in which fear was the controlling factor.

A typical instance of organized pupil participation in school management on a conservative basis as a means of civic training is given in the United States Bureau of Education Bulletin, 1915, No. 17, page 31:

It consists in a realization of the theory that the school is a real community with characteristics of its own, although possessing certain fundamental characteristics in common with all communities. Of this community, pupils and teachers are members, with certain common interests. Cooperation is the keynote of the community life. The realization of this cooperation is seen in the classrooms, in study halls, in the assembly room, in the corridors, on the playground. It manifests itself in the method of preparing and conducting recitations; in the care of school property; in protecting the rights of younger children; in maintaining the sanitary condition of building and ground; in the elimination of causes of "discipline" and of irregularity of attendance; in the preparation and conduct of opening exercises, school entertainments, and graduating exercises; in beautifying school grounds; in the making of repairs or equipment for "our school"; in fact, in every aspect of the school life.

Particular instances of almost all of the kinds of pupil participation here suggested may be found in the San Francisco schools. But there is, apparently, no general effort to organize them as a definite and regular means of civic education, nor to relate them to the instructional work of the school for the same end.

Playground activities.—The schools of San Francisco are very much cramped for play space. Principals and teachers feel the deficiency very keenly.

About half of the principals of the city reported that they use playground activity as a means of moral and civic instruction. Their statements, however, were usually very general. "Team work," "fair play," "respect for authority," "obedience," "respect for rights of others," "care of property," "self-control," "leadership," are among the qualities most commonly mentioned as the end in view. In no case was information given as to the methods by which these qualities are developed.

The other half of the principals reported that there was either no use of playground activities for civic ends, or that the playground was "too small," "too confined," or that "nothing definite," "nothing systematic," was done.

There are in San Francisco 10 public playgrounds distributed according to natural geographic divisions of the city. These, together with 2 public swimming pools, are under the control of a playground commission which serves without pay. In addition the board of education has turned over to the playground commission 20 school yards and certain accessories in the school buildings to be operated as public playgrounds from 3 to 5 p. m. on school days and from 9 to 12 a. m. on Saturdays. The playground commission pays operating expenses.¹ The president of the board of education is ex officio member of the playground commission; and the supervision of the public playgrounds is in the hands of a director who is appointed jointly by the board of education and the playground commission, and who also has general direction of physical training and athletics in all public schools and of the social centers. The two administrative bodies seem to be working together harmoniously at the present time. Yet there is no good reason for the double administrative machinery, and many reasons why the public schools and the public playgrounds should be under the same control. In other words, a reorganized board of education should also be the playground commission.

The director of the public playgrounds is greatly overworked by reason of having under his care the physical training, athletics, and playground activities of the public elementary and high schools, as well as the community centers of the city, including music and lecture centers. His burden is made the greater by the fact that his subordinate playground supervisors are in many cases inadequately trained for their work. He should be relieved of a considerable part of this

¹ The budget of the playground commission for the year 1917-18 provides for 10 more school-yard grounds, making 30 in all.

work by some such plan as that suggested on page 361 of this report.

In addition to the relief of the playground director from some of his widely varied duties, the most urgent playground needs at present are for more adequate school playground space and better trained playground supervisors.

Pupil organizations.—Forty out of 68 principals reported that there are no pupil organizations in their schools. Nineteen referred to "athletic organizations" or "ball teams"; debating clubs were mentioned twice; orchestras and drum and bugle corps five times; a choral organization once; an editorial staff of a school paper once; dancing clubs twice; a dramatic club once; other clubs five times.

Many organizations of elementary pupils should probably not be encouraged; and there seems to be no danger of overorganization in the San Francisco schools. Such organizations as exist within the school should not only be of direct educational value to the individual pupil, but should also contribute definitely to the community life of the school as a whole. Athletic teams, school orchestras, and drum corps have a well-known value in the development of a "school spirit," which implies a consciousness of and loyalty to group interests. Dancing clubs, sewing clubs, debating clubs, and the like may have a definite place in the life of the school under certain conditions; but the question suggests itself how far the feeling of need for "clubs" may indicate a lack of provision for the wants of the children by the school as such. The school should make regular provision for dancing, sewing, debating, and the like without the necessity of "clubs" to supply the deficiency, and the opportunity for group organization and for a measure of self-government should be afforded in the regular "classes."

Gardening activities.—A detailed account of the gardening activities and possibilities in San Francisco, and of the educational opportunities offered by them, is given in another chapter of this report (Ch. XVI). These activities, when adequately organized and supervised, afford peculiar opportunities for the emphasis of civic ideals and the cultivation of civic qualities. In illustration of this may be mentioned the opportunity for children to participate in the beautification of their neighborhood and city, the utilization of idle land, an appreciation of the civic value of industry and thrift, responsibility for the care of public property, cooperation with the departments of health, parks, public works, etc. Gardening is one of the few activities in which the children can, with organization and supervision, make an appreciable contribution to the economic and civic welfare of the community at the present time, and by so doing receive civic training of inestimable value.

In fact, school gardening hardly exists in the city, and home gardening under school supervision has not been developed at all. A few principals and at least one of the deputy superintendents have made persistent efforts to establish this work, but with little support from the educational or other authorities. An attitude of discouragement prevails among those most interested in the matter.

Thrift.—A savings system is in operation throughout the schools of the city. Unquestionably the school savings bank tends to cultivate habits of thrift on the part of the children and affords opportunity for organized lessons in personal and public economy. The community no less than the individual will profit by the formation of such habits in the younger generation of citizens; the movement in the schools has a distinct civic value.

The superintendent of schools reports that in 1915-16 there were 17,026 individual depositors, or 4 in every 11 pupils, with total deposits of \$292,070.45, as against 7,604 depositors, or 4 in every 16 pupils, with a total deposit of \$68,187.37 at the end of the first year of operation (July 1, 1912). The average deposit per pupil has thus increased in the same time from \$8.96 to \$17.15.

The children bring their savings to their teachers, from whom they are collected weekly by representatives of the bank which inaugurated the school savings plan in the city, and which arranged with the school board to handle the children's business. It will be noted that this differs from the practice in many cities, where the deposits are distributed among a number of banks, according to the choice of the children or their parents.

Pupil participation in activities of the community outside of the school.—It was intended to study the affiliations of eighth-grade and high-school pupils with organizations outside of the schools, and the activities of such organizations so far as they seemed to have a civic-educational purpose or influence. Time was not found for this. Direct inquiry was made, however, of the eighth-grade pupils in a number of schools. In some classes not a single pupil acknowledged membership in any organization other than the church or Sunday school. In other schools the Y. M. C. A., the Boy Scouts, various athletic clubs, and the like, had representatives among the boys; the Camp Fire Girls, sewing clubs, social, musical, and religious organizations among the girls. Such organizations represent interests which also lie at the foundation of social and civic life in general—physical, intellectual, esthetic, economic, etc. The extent and kind of such affiliations on the part of the children vary from school to school, and from district to district. What relation they bear to the home life of the children, and how far they may be taken as an index to the richness or poverty of their social experiences and opportunities are questions worthy of study. They should, at all events, be taken into

account by the school as a factor in the civic education of the child. As far as could be discovered there is very little coordination of these outside interests with the work of the school.

In response to the question "In what civic activities outside of the school have your pupils participated in an organized way during the last year?" 57 out of 68 principals replied "None"; 4 specified festivals and carnivals, such as the May Festival; 3 mentioned membership in juvenile organizations such as the Boy Scouts; several referred to athletic contests; 1 mentioned cooperation with an improvement club, and 1 membership in the Mount Tamalpais Conservation Club. One principal stated that participation by pupils in outside civic activities was "not permitted"—by whom was not indicated.

Perhaps the question was not wholly understood. No reference is made in the written responses to participation in such movements as "fire-prevention" or "clean-up" campaigns, though such movements had been mentioned in personal interview in one or two cases. It seems, however, that organized cooperation by school children in movements of general public concern is not common, though under proper supervision it could be made a vital feature in their civic education.

As individuals or as members of organizations children do participate in many community activities, which should afford a basis for civic instruction. The boy who sells papers on the street, for example, should be made to see how his work "fits in" with the activities of other boys and girls, and with the general economic and social life of the community.

The children are now citizens of the larger communities of city, State, and Nation, and in going to school they are doing the very thing that the community expects of them. Regularity and diligence in school work are a public service. School buildings and equipment are public property. Teachers, principals, superintendents, and school board are a part of the governing machinery of the city and State. The children's cooperation with these representatives of the community is good citizenship of the most practical kind.

The maintaining of order on the playground naturally extends to the maintaining of order on the streets in the vicinity of the school. It is common for committees of older boys to look after the safety of younger children in crossing streets near the school. Solicitude for the cleanliness and beauty of school grounds develops equal solicitude for the cleanliness and beauty of adjoining streets, alleys, lawns, and vacant lots. School gardening quickly stimulates home gardening, and whole neighborhoods have been transformed through the influence of the schools. The sodding of the barren dooryard of an adjoining tenement by a group of colored schoolboys led, in one case, to imitative activity on the part of neighboring residents. Neighboring fences were straightened up, walks repaved, back yards cleaned.¹

¹ U. S. Bu. of Educ., Bul., 1915, No. 17, p. 32. Further discussion and illustration of pupil participation in community activities are given in the same connection. See also Bul., 1915, No. 23, pp. 17, 18.

Organized participation by children in matters of large public concern is feasible and wholesome, provided it is wisely directed. Such instances are found in "safety-first" movements, fire-prevention and health campaigns, historical and civic pageants. The school should see to it that the pupils are conscious of the social and civic significance of what they are doing. But more important than these more or less spectacular movements, which are often temporary in their effect, is the continuous effort to relate the pupils' daily activities, in the home, in the school, or on the street, to the stream of community life. This is the most vital feature of community civics.

The San Francisco elementary schools have not yet reached the point where *the pupil's own life as a member of the community* is made to afford the primary materials for his civic education.

B.—HIGH SCHOOLS.

The American public high school has a peculiar responsibility for the training of youth for efficient membership in American democratic society. This includes technical efficiency, the foundation for which, at least, should be provided for in the secondary course of study. It also includes social efficiency, to which the course of study should clearly contribute, but which can be developed to the fullest extent only by practice. The high school is, in fact, a miniature American community. In the interest of the civic training of its young citizens, it should be conducted in as full accord with the principles of political and social democracy as is consistent with the proper performance of its other (academic and technical) functions. This means the cultivation by practice of responsibility, cooperation, initiative, leadership and a proper conception of leadership, loyalty to community ideals and aims, and other essential qualifications for efficient membership in a political and social democracy.

The routine life of the school affords constant opportunity for such training, but of peculiar importance are the varied extra-curricular activities characteristic of the life of large high schools: Athletics, musical and literary organizations, the publication of school papers, debating clubs, scientific clubs, social organizations, and entertainments. Whatever intrinsic educational value these activities possess, their sanction in the high school is to be found largely in the opportunity they afford for pupil participation in their management and in the relation of such group activities to the interests of the school as a whole.

It is said that there has been more or less opposition to pupil organizations and activities in the San Francisco high schools on the part of the board of education. The extent and ground of such opposition was not learned, but there is at present in most of the high

schools of the city a wide range of extra-curricular activity and organization. Under suitable regulation as to time consumed by them, character of their work, and the relation of their work to that of the school as a whole, such activities unquestionably afford a distinct civic-educational opportunity.

In three of the high schools, and perhaps in all, there are organizations of the entire student body with more or less responsibility for the conduct of all extra-curricular school activities. One of the most fully developed of these is in the Polytechnic High School, the principal of which is a firm believer in student activities as a direct means of social and civic education. Even the faculty committees of this school, including the committee on discipline, have student members appointed by the principal with the advice of students. The purpose is to get the students' point of view in regard to all policies and measures. Practically all of the activities and institutions of the school, including the well-ordered cafeteria, are managed largely by this student organization, at the head of which is a council composed of the officers of the organization and the heads of the several student activities. The principal holds himself responsible for the academic standing, morals, and conduct of those who are permitted to hold office, but he depends for his judgment largely upon the Honor League, which is composed of pupils of known high standing. Even some cases of discipline are turned over to the student organization for treatment.

The Lowell High School has a similar organization, which manages all school activities, including the school journal, the cafeteria, and the book exchange. The governing board consists of the principal, three faculty representatives appointed by the principal, the executive officers who are elected by the student organization, class representatives chosen by their respective classes, and representatives of school interests, such as athletics, the school orchestra, etc. The treasurer must be one of the faculty members, as also the general director of the cafeteria, who is responsible for the funds of the latter. But there are several assistant treasurers who are students and who collect all money, with full responsibility to the treasurer and to the director of the cafeteria. This organization has nothing to do with the administration of the academic work of the school, nor with discipline in the ordinary sense. It may follow up cases of infraction of school regulations, but with no authority to act.

The activities of the High School of Commerce are apparently somewhat more restricted than in the two schools just mentioned. There is a student organization, but it is said to be "nominal." It has a "sort" of charge of athletics, dancing, etc., but under the "direction and control" of a teacher. Pupils are not permitted to

handle funds. The school recently had a "self-government day" as an experiment, which was said to be successful and of great interest to the pupils. The principal says, however, that at present there are no "facilities" for self-government in the school.

No detailed information regarding pupil participation in the management of school activities in the other two high schools was obtained.

Participation in outside activities.—There is very little organized participation by high-school pupils in community activities and civic movements outside of the school. The head of the department of drawing in the Polytechnic High School has been president of the local improvement association of the district in which the school is situated. By authorization of this organization he directed the boys of his department in surveys and plans for the improvement of a local park, and in the construction of equipment for it. It was reported that pupils of the same school, acting in conjunction with the local improvement association, attended one or more meetings of the board of supervisors in the interest of desired improvements for the school or its vicinity. But such activity is not common.

Reference was made on page 330 to the fact that there is very little direct contact by the pupils in the government classes with community activities as a basis for their study; no participation in "social surveys," little direct study of health or other community conditions and activities. In some communities high-school pupils have assisted materially, and especially to their own benefit, in community surveys of various kinds. Pupils of science departments have assisted local health departments and other departments of government in such matters as water and milk analyses. It has been suggested from various sources that in the interest of civic education every young man should at some time in the course of his education be required to "do service" of some sort for his community in direct cooperation with governmental departments—health, police, park, etc. Whether this is feasible or not in a regularly organized way, there is opportunity for voluntary cooperation between the schools and other departments of government that could be made mutually beneficial, provided, of course, that there were competent supervision and sympathetic cooperation on the part of the governmental departments concerned. There seems to have been no development in this direction in San Francisco.

EVENING SCHOOLS.

A detailed report on the evening schools of San Francisco, with especial emphasis upon their work for adult foreigners, is given in Chapter XV. They are briefly considered here only in relation to their direct efforts to train for citizenship.

The enrollment in these schools consists chiefly of three groups: (1) Boys and girls who did not complete the elementary course in the day schools and are trying to find a substitute for it in the evening schools while working during the day; (2) young men and women who are seeking to extend their education beyond the elementary stage, or who are taking technical or commercial instruction; and (3) adults, chiefly foreigners, of whom many are just learning to speak English. The last group will be dealt with separately in the succeeding section.

The evening elementary schools contain graded and ungraded classes, the former including Grades IV-VIII. The presumption is that most of the pupils in the evening school have completed at least the third grade of the day school, which they must attend until 14 years of age. A course in civics is offered in the eighth grade as in the day schools, with the same text as a basis. According to the last printed course of study (1911) instruction is given in this subject twice a week in thirty-minute periods, alternating on the other three evenings with geography in the first half-year and with sanitation in the second half; geography and United States history are given in Grades V-VII, the geography two periods a week and the history three periods. There is some variation in the time actually allotted to these subjects, civics sometimes being taught only once a week.

The Humboldt evening high school, with an enrollment of about 1,400, is organized in academic, commercial, and technical departments. A course in civics is offered for one year in the academic department, but there is none in the commercial and technical departments, although pupils in these departments may elect subjects in the academic department. The head of the commercial department thinks that civics should be taught in his department, and one of the teachers in the technical department thought that civics instruction could be given in close relation with some of the technical courses. A year of history is offered in this high school. A great deal of attention is given to debating, in which opportunity is afforded for the discussion of questions of civic import. Every pupil in the academic department is a member of a debating club, and pupils from the other departments may enter at their option. Interscholastic debates are participated in.

The civics instruction observed in the evening elementary schools is, in general, perfunctory and bookish and fails to reach the pupils. There is always the exception. One teacher, for example, was enthusiastic in regard to her civics class, the members of which, she said, take great interest in "work based on the real experiences of their lives." No recitation by this class was actually observed, but judging from the enthusiasm of the teacher, her methods in other

work, and her own account of her methods in civics, it is probable that rather effective work is being done here.

Another class was visited which was composed entirely of boys of an average age, probably, of 17 or 18. The teacher is a young man of initiative and resourcefulness. He takes up with the boys vital problems that have a direct relation to their lives. Sometimes these are suggested by the textbook, which is read and discussed, sometimes from other sources. They include such problems as hygiene for the worker and economic problems of various kinds. A textbook in economics is referred to, and bulletins issued by the State board of health, the State development board, and other governmental departments are freely used. There was here a distinct effort, and apparently a measurably successful effort, to adapt the work to the conditions, interests, and needs of the boys in the class.

The pupils in the evening schools are all more than 14 years of age, studying subjects pursued by very much younger pupils in the day schools. Many left day school without having completed more than the first few grades. In a single class ages may range from 14 to 21 or more. They have usually done a day's work before coming to school. They have comparatively little time for study, are in school but a few hours per week, and are often very irregular in attendance. There is not the variety of occupation nor the opportunity for recreation and social enjoyment that characterize the day school. Many of them are earning their own living and contributing to the support of their families. Life has become for them a serious business.

These facts should suggest the probable futility of merely transplanting the day-school curriculum and methods into the evening school. Instruction in the evening schools, while enriching the lives of the pupils and developing their capacity to enjoy life, must of necessity have a practical relation to present life conditions. The reading, the mathematics, the language work, as well as the geography, the history, the hygiene, and the civics, should be organized in close relation to the experience, interests, and present needs of the pupils.

The aims of civics instruction should be the same in evening schools as in day schools, as set forth in the printed course of study and quoted above (p. 303). The general outline for the eighth grade may serve as a sort of sailing chart, but it can hardly be more. The textbook in use may serve a useful purpose, but under the conditions of evening-school work it should by all means not be the controlling purpose to "complete the book." It would be much more effective to select a very few topics of direct relation to the pupil's interest and conditions and to organize his civics instruction around them. Public health from the standpoint of the worker,

public safety from the starting point of accident prevention, the civic relations of business life are suggestive topics.

It is necessary in evening-school instruction in civics and other social studies to concentrate upon actual points of contact with the lives of these handicapped boys and girls. What has been said relates primarily to the elementary classes; but it is equally applicable to the evening high-school work, except that in the latter the pupils have broader interests, greater maturity, and perhaps a more definite purpose in life, which must be taken into account in the selection of topics and the methods of treating them.

Because of the relative maturity of evening-school pupils, even in the lower grades, and also because many of them fail to continue in school more than a year or two, organized civics instruction of the kind here proposed might well be introduced as early as the fifth grade. It should be given in close relation with other studies and need not be great in amount. Time could readily be found for it by eliminating some of the formal stereotyped work in various subjects, especially in geography and history.

The selection of suitable topics and materials must be chiefly the responsibility of the teacher. This and the development of methods by which evening school pupils may actually be reached requires exceptional skill on the part of the teacher. Effective training for citizenship in these schools will be conditioned on the assignment of teachers to this work on the sole basis of peculiar fitness to meet the unique conditions existing.

THE CIVIC EDUCATION OF THE FOREIGNER.

The facts regarding San Francisco's large and varied foreign population, and some of the educational problems presented by it, are set forth in Chapter XV of this report. The present section is concerned solely with the direct training of the foreigner for American citizenship.

An urgent problem is presented by the adult immigrant who, ignorant of our language and unfamiliar with our ideals, institutions, and habits, takes his place at once as a factor in our social and economic life. The chief public instrumentality available with which to meet the situation is the public educational system, and its most obvious means (so far as the adult immigrant is concerned) are the evening school and the social center. San Francisco has classes for foreigners in some of its evening schools, but they reach a mere handful of those who should be enrolled.

The first step toward the Americanization of the immigrant is the acquisition of the English language. This work of the evening

schools is discussed at length in Chapter XV of this report. While this is not, in itself, civic education, it is a necessary foundation for it.

The Americanization of the immigrant is not completed, however, until he has also acquired an understanding of local and national community life in America—social, economic, and political—and has attained to efficient participation in it as a citizen. This constitutes his civic education. To what extent do the San Francisco evening schools provide systematically for this aspect of Americanization? To what extent may they so provide?

Only 7 of the 16 evening schools of the city have classes for adult foreigners, with a total enrollment (August, 1916) of about 600, and an average attendance of from one-third to one-half of this number. Attendance is very irregular, and the time during which the adult foreigner remains in evening school is usually very short. Of those attending, the majority have so slight a command of the English language that instruction in a content subject, such as history or civics, is necessarily slow and laborious, and often practically impossible, especially where the subject deals with institutions and concepts radically different from those within the past experience of the student. That the problem is hardly being touched at all is made vividly apparent by noting that in 1910 of the 416,912 people in San Francisco, 130,874 were foreign-born whites (31.4 per cent), and that while the foreign-born population increased between 1900 and 1910 from 104,254 to 130,874, the number of whites unable to speak English increased in the same time from 4,251 to 9,537, or more than doubled. (See Chapter XV.)

Some instruction in civics and United States history is given to those who are just learning to read English by giving as reading lessons simple stories from history and matter from elementary civics texts. The material used in such cases is necessarily very elementary from a language standpoint, and in substance is of about the same kind as that given to children of 12 or 14 years, or younger, in the day schools. In spite of their unfamiliarity with the English language, these foreigners are by no means immature of mind. Some of them have been well educated in the schools and universities of their own countries. The civics instruction given to this group by present methods is hardly calculated to inspire them with the spirit of American life and institutions, or even to give them any great amount of usable information.

For more advanced students (from the point of view of English) regular citizenship instruction is given, but with varying emphasis in the different schools. Most of this work is very formal and mechanical, and less well organized than in the day schools. It is true that in these classes individuals may be found who show a good deal

of interest and even enthusiasm, but it is the interest and enthusiasm of individuals eager to learn and grasping with avidity at whatever is offered them. This only serves to accentuate the need for something that will more fully satisfy their hunger.

In one or two of the evening schools exceptionally conscientious work for the foreign citizenship classes was found, though greatly handicapped by conditions for the most part beyond the control of the teacher. The most noteworthy instance was perhaps that of the Lincoln evening school, to which more extended reference is made in Chapter XV. As there stated, the principal and teacher of this school have sent out, at their own expense, invitations to attend the citizenship classes. The teacher has prepared, also at her own expense, a special text designed to meet more nearly the needs of her classes as she knows them. When any of her students are ready to take the naturalization examination, this teacher also makes it a point to accompany them to the court. Doubtless much good work is being done here in spite of inadequate facilities and other adverse conditions.

If the Americanization problem of San Francisco is to be met at all adequately, provision must be made at least in the following directions:

1. For more adequate evening-school facilities for adult foreigners, including more schools distributed in favorable localities; more efficient organization and administration, both as to general supervision and as to specific handling of classes which are composed of adult foreigners; and an adequate number of competent teachers to meet the new demands.
2. For more general and regular attendance of adult foreigners who have not received their naturalization papers, until they shall have acquired facility with the English language and shall have completed an approved course of instruction in citizenship.
3. For the adoption of the most approved methods of giving practical facility in the use of English in the shortest time possible.
4. For a systematic citizenship course devised especially to meet the needs of the adult foreigner in the land of his adoption and to safeguard the interests of the community in which he has made his home.

It is not within the province of this section of the survey report to deal with the general administration of the evening school, nor with the methods of instruction in English. As for more general and regular attendance, it is believed that much can be accomplished in this direction if the school is made attractive, first by adopting methods appropriate to grown men and women, instead of those

which have been borrowed from elementary day schools (see Chapter XV); but more particularly by offering instruction that will really satisfy the wants of the student. This has especial application to the course in citizenship.

The citizenship course for adult foreigners should be organized directly around the problems which they themselves encounter from the time of their arrival in this country and which are, therefore, of direct practical interest to them. This means the application or adaptation of the community civics idea to the requirements of adults who have attained mental maturity, but who find themselves in a community whose actual conditions and relations are entirely strange to them and at first, in many cases, incomprehensible. Some of the formal information contained in the usual textbooks and outlines of civics doubtless has, in its proper place, a value for the foreigner; much of it is wholly unnecessary in the earlier stages of his civic education. But any of it may be acquired more effectively if it is made incidental to and given the perspective of a study and discussion of the elemental experiences of the immigrant in his efforts to establish himself as an active member of American society.

Perhaps the best available exemplification of the kind of citizenship instruction appropriate to the requirements of adult foreigners is that suggested by a tentative syllabus issued by the Division of Immigrant Education of the United States Bureau of Education and by the more elaborate syllabus for a citizenship course for immigrants published by the New York State Department of Education (Albany). The city of Rochester, N. Y., is apparently doing some effective work along the general lines of these syllabi, and is worthy of special mention because of the organized training of teachers for foreign classes there developed.

It is believed that evening-school work might be made more attractive to the adult foreigner, and more effective on the citizenship side, if it were closely identified with the community center. Citizenship classes would themselves benefit by a little more of the informality characteristic of the "club" or the "forum." Moreover, the varied activities and interests of a well-developed community center are highly educational on the civic side, and may in many cases be closely correlated with definite citizenship instruction. Recreational facilities, reading room, stereopticon and moving-picture equipment, open discussions and debates, lend themselves to the general purposes of the community center and to the specific purposes of citizenship instruction. (See section on Community Centers, pp. 359, 360.)

However successful the attempt to bring adult foreigners into evening classes and to improve methods of instructing them, there

are serious limitations of this influence by the shortness of time during which they attend school, the fixed habits of the adult, the difficulties of language, etc. The Americanization and assimilation of the foreign population must be accomplished chiefly through the younger generation. Statistics for 1908 show that 58 per cent of the children in the San Francisco public schools were then of foreign parentage (see Chapter XV).

Even from the standpoint of the Americanization of the adult foreigner, the children afford one of the most effective channels through which to work. If the civics work of the public schools is really vital, it will inevitably penetrate the home. This has been demonstrated in numerous cases, a single illustration of which is reported by a German father who said that the civics which his two boys were taking in the eighth grade furnished the subject of conversation at breakfast nearly every morning. If the work in the school is well planned and the questions well formulated, more or less discussion at home may be directly stimulated.

An illustration of this is afforded by an incident in one of the classes visited in San Francisco. The topic under discussion chanced to be immigration. The recitation consisted of a recital by the pupils of general facts obtained from the textbook. The recitation was interrupted:

Observer. How many of you were born in other countries?

Two or three pupils indicated that they were.

Observer. How many of you have parents who were born abroad?

Fully half the class answered in the affirmative.

Observer. Tell me from what countries your parents came.

Several nationalities were given in response.

Observer. Can any of you tell me why your parents came to this country? What their experiences were on landing? How they reached their final destinations? Etc.

Little definite information was elicited by such questions as these.

Observer. Do you think it would be interesting to find out from your parents the story of their coming to America, and what happened after they got here, and to tell it to the class?

The children agreed that they would like to do this.

If the suggestion here given were followed out by the teacher, it would afford an opening not only for a lesson on immigration based on realities close to the children's experience, but also for home discussion.

Moreover, the civic education of the immigrant depends largely upon the civic education of the American. In the first place, the Americanization of the immigrant can be successfully accomplished only if Americans themselves understand the problems involved and meet the immigrant fully half way. The problems of immigration and Americanization are problems about which American citizens

and their children need instruction as well as the immigrant and his children. They should be included in any vital course in community civics, especially in a city like San Francisco, whether in classes of native or foreign children, though the angle of approach may differ in the two cases.

In the second place, the character of the citizenship of the immigrant will be moulded more continuously and profoundly by his daily experience and contacts, by the conditions in which he lives and works, than by anything he can be taught in the schools. These experiences of the immigrant depend largely upon Americans themselves; their attitude toward the immigrant and toward American conditions and ideals. Good citizenship on the part of immigrants is dependent upon good citizenship on the part of Americans.

The foreign population of San Francisco thus affords another argument for organized and effective civic education throughout the school system for both native and foreign children. To be effective it must be universal; but it must also be carefully adapted to group needs. The principles of good citizenship and the general subject matter of civics are the same for all groups; but the point of view and the experience of the foreign child may differ widely from those of the native; indeed, they may differ widely among different foreign groups and in different sections of the city. This creates a necessity for different methods of approach, different illustrative materials and different applications. At the present time practically no provision is made in the San Francisco schools for such group distinctions.

COMMUNITY OR SOCIAL CENTERS.

The school law of California provides that—

There is hereby established a civic center at each and every public schoolhouse within the State of California, where the citizens of the respective public school districts within the said State of California may engage in supervised recreational activities, and where they may meet and discuss, from time to time, as they may desire, any and all subjects and questions which in their judgment, may appertain to the educational, political, economic, artistic, and moral interests of the citizens of the respective communities in which they may reside; *Provided*, That such use of said public schoolhouse and grounds for said meetings shall in no wise interfere with such use and occupancy of said public schoolhouse and grounds as is now, or hereafter may be, required for the purposes of said public schools of the State of California.

Lighting, heating, janitor service and the services of a special supervising officer when needed * * * shall be provided for, out of the county or special school funds of the respective school districts. * * *

The management, direction, and control of said civic center shall be vested in the board of trustees or board of education of the school district. * * *

(School law of California, Art. VIII, sec. 1, 2, and 3.)

Under the authority of this law five community centers¹ were in operation in the San Francisco schools in the year 1915-16. The following statistics relating to them were furnished by the director in charge:

<i>Monroe School Center, operated five nights each week:</i>		Attendance
Monday—Rug weaving		15
Tuesday—Dramatics for girls		20-25
Wednesday—Slugg for girls		20
Thursday—		
Gymnasium for girls		25
Italian and Spanish classes		85
Friday—		
Girls' sewing		20
Boys' gymnasium		50
Public lecture once each month.		

John Sutt School Center:

First Wednesday, each month—Neighborhood rally	200-300
Second Wednesday, each month—Public lecture	150-200
Third Wednesday, each month—Parent-teacher club	200-250
Fourth Wednesday, each month—Senior alumni association	100-150
Monday each week—Junior alumni association	40-50

Bryant School Center:

Second Friday, each month—Public lecture	100-125
Third Friday, each month—Parent-teacher club	200-250
Fourth Friday, each month—Neighborhood rally	200-300
Tuesday, each week—Dressmaking	20-80
Wednesday, each week—Millinery	20-80

Terba Buena School Center:

First Friday, each month—Parent-teacher club	200-250
Second Friday, each month—Public lecture	100-125
Third Friday, each month—Alumni association	75-100
Fourth Friday, each month—Neighborhood rally	200-300
Four nights each week—Neighborhood boys' club	18-25

Spring Valley School Center:

Thursday night, each week—Mothers' club	300-350
Monday night, each week—Neighborhood boys' club	15-30

All expenses of these centers were paid last year by the board of education, except in the case of the Spring Valley School Center in which the board provided only for the expenses required by the law—light, heat, and janitor service. In each center the principal of the school served as the "special supervising officer."

¹ There is confusion in practice in the terms applied to these centers. The term "civic center" is objectionable because it is also applied to the center about which public buildings are grouped in many cities. The term "social center" is used generally in San Francisco. "Community center" and "neighborhood center" are also in use, the last named being used specifically in the proposed plan of operations formulated by the director in charge. The term "community center" seems likely to be generally adopted and will be used throughout this report.

This year (1916-17) the board of education discontinued its policy of entire support of community centers on the ground of lack of funds. As a result of this and the uncertainty as to how they would be provided for, none of the centers had resumed its activity this fall (September; school opens the latter part of July). In one case the principal was trying to hold the organization together by continuing some of the center activities in quarters outside of the school, but there was a general feeling of anxiety lest the centers should fall to pieces entirely.

The director in charge of community centers (who is officially director of physical training, athletics, social and lecture centers, and playgrounds) has proposed a plan for the "Establishment and operation of neighborhood centers in the public-school buildings," which is a compromise, so far as method of support is concerned, between the plan in effect last year and that made mandatory by law. At the time of the inquiry the plan had not been adopted by the board of education.¹ Its essential features are as follows:

The board of education will grant and promote, through its department of physical education, athletics, social, and lecture centers, the use of school buildings for evening neighborhood centers of the following character:

A. Social centers—for the purpose of conducting neighborhood rallies, entertainments, clubs, etc., for any moral purpose except political or religious propaganda.

B. Lecture centers—for the purpose of conducting lectures, discussions, or debates upon any subject free from political or religious propaganda.

C. Music centers—for the purpose of promoting neighborhood choruses or other musical interests of the people.

NOTE.—The term "social center" is here used to denote an inclusive neighborhood center. The social center may, therefore, include both lecture and music centers, as well as many other interests and activities.

By "political or religious propaganda" is not meant broad and liberal treatment of the civic and ethical questions of the day. The bar is against partisan or factional politics and the promotion or criticism of or the giving of offense to any religious faith or organization.

When neighborhood centers are established the board of education will provide the following for each center: One employee of the board of education to serve as leader, promoter, and manager of the center; necessary janitorial service; light and heat; a certain amount of equipment, repairs, and supplies required for given activities; motion-picture service in social centers once each month; stereopticon and operator in lecture centers; piano in music centers.

All other items of expense in the operation of a neighborhood center must be met by the patrons of the center.

¹ Since the above statement was written information has been received that the board of education has adopted *in toto* the plan proposed by the director as outlined above. Also, that the five centers had resumed operations with slight change in activities. In addition, three new centers have been opened, but chiefly as music centers. Whereas last year all centers were managed by the principals of their respective schools, this year three centers are managed by teachers recommended by the principals.

The last provision of this plan as quoted would apply especially to instructional work, the teachers and equipment for which would have to be paid for by the group. Principals of schools having community centers fear that any plan which shifts the expense of such popular activities as instructional work to the neighborhood group will undo valuable work that has been begun and will delay, if it does not wholly prevent, the extension of centers into neighborhoods most greatly in need of them. The argument on the other side is, in effect, that the willingness of the people to pay for what they get may be taken as a measure of the need for the community center. This argument would hardly be taken seriously if applied to the ordinary activities of the public schools, and the community center at public expense should no more be considered a charity than is the public school itself. Both are a profitable social investment.

The movement for a wider use of the school plant was originally based largely on the argument that it was a return, or the means of return, to the old "town-meeting" idea—the assembling of neighbors to discuss matters of common concern. As the movement has grown, increasing emphasis has been placed upon recreational and instructional features. These have proved of the utmost value; but it is unfortunate that the development of the "forum" idea has not everywhere kept pace with the development in other directions. It has hardly developed at all in San Francisco. In a circular recently issued by the United States Bureau of Education explanatory of a proposed bill for the establishment and operation of community centers, the statement is made:

The provision of community-center opportunities for the training and recreation of young people is important * * *; but the provision for consistent adult forum organization, although a matter of far less expense, is far more vital. If both can be secured—well. If only one—then the forum should be first.

It is the opportunity afforded to the citizenship of a community for the discussion of community interests and the development of a practical sense of civic responsibility that gives to the community center its chief value and its sanction as a function of the public educational system of the community. All other activities should be subordinate to this central idea. It is the essential unifying agency for the miscellaneous social activities of groups that sometimes seek to use the schoolhouse for their own private ends, and assures their being kept in harmony with the public interest. Access to the schoolhouse for social or other purposes should be through the doorway of the forum, which consists of the citizenship of the neighborhood united as individuals in the interest of an intelligent democracy. Where this idea has been consistently adhered to there seems to have

been no trouble from the abuse of the schoolhouse and its privileges by self-seeking groups.

What has been said regarding social activities in the center applies also to discussions that may take place there. The forum idea of the center has sometimes been wrecked on the rock of propagandism and partisanship. This has seldom, if ever, been because of the subject under discussion, but because the discussion was under the control of some particular group and for its own interests, instead of under the control of the forum in the interest of the community. The people of a democracy need training in self-control, open-mindedness, and fairness in the discussion of questions of common interest.

Thirty-six of the school buildings of San Francisco are used as polling places in both primary and regular elections. This is one of the highest expressions of the community-center idea. The voting citizens of the neighborhood come as individuals to record their will on public questions. This use of the school building should not be permitted to interrupt the work of the school. It should rather be made a part of its educational work.¹ The logical development of the community-center idea will coordinate the instructional work of the school with the use of the building for other community purposes. If the citizen thus acts with his neighbors in the final expression of his judgment, why should he not have the opportunity to act with them in the same place in arriving at his judgment?

In the section on the civic education of the foreigner (ante, p. 354) a close coordination between the evening school and the community center was suggested. In so far as the community center provides for evening classes, whether in English, rug weaving, or citizenship, it is an evening school. Instructional work is as legitimately a function of the community center as any other activity. Moreover, the evening school is one of the best possible illustrations of the relation that should exist between the center and the community. It represents the community organized for educational purposes. It is the community-center idea developed in a single direction—instructional. The evening school and the community center should be identified in their essential purpose and methods.

This does not mean, however, that the varied activities in the school building in the evening should be under the same immediate supervision. There are administrative problems to be worked out. The director of physical training, athletics, social and lecture centers and playgrounds already has too much in his charge; supervision of evening schools should certainly not be added to his responsibilities. The interests of the evening schools demand special supervision by a

¹ The San Francisco schools do remain in session during the use of the buildings as polling places. The pupils are permitted, in some cases at least, to observe the election, and are given some instruction in regard to the methods employed, etc.

trained educator whose energies should not be too far dissipated by other interests. On the other hand, the direct civic and recreational relations and aspects of the work of the public schools are of such peculiar importance as to demand special supervision. While the details of this administrative organization can be worked out only by experiment and adjustment to particular conditions, the following paragraphs indicate the general direction.

A deputy superintendent should be made responsible for all evening schools and for the civic and social educational work of the schools, including that of the day and evening schools and the community centers. Subordinate to him there should be at least two general directors or supervisors, one of whom should be the director of health and recreational activities, including those of the community centers; the other should be the director of civic education, as such, in day and evening schools and in community centers (including general supervision of forum discussions, lecturo centers, etc.). The director of civic education is referred to in other parts of this report. Figure 68 shows the general relations of this administrative machinery.

Directly subordinate to the deputy superintendent in charge of the above activities would also be the principals of the several evening schools as such.

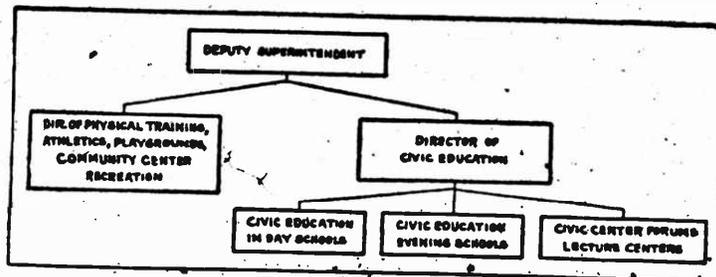


FIGURE 68.—The proposed plan of organization places responsibility for civic education in day schools, civic education in evening schools, civic-center forums and lecturo centers under a director of civic education. This officer, and the director of physical training, athletics, playgrounds, and community center recreation, report directly to one of the deputy superintendents.

Other administrative problems are presented by the several local community centers and schools. It is highly desirable that the principal of the day school should be closely identified with the community center of that school neighborhood, as is now the case. Just what shall be the relation of the principal to the center? If the evening school is identified with the community center as herein suggested, what shall be the relation between its principal and the principal of the day school? Shall the two principalships be combined into one?

The relation of the principal to the community center should be that of an *executive secretary*. It should not be his or her business to *control* the discussions of the adult forum, nor even to direct them in the sense that the children in the day school are directed, but rather to *serve* the forum as its secretary while at the same time directing the varied activities centering around and determined upon by the forum. Such service is one of dignity and responsibility, requiring tact, organizing ability, and initiative. In order that such service may be given successfully, the principal should be relieved, as proposed in the case of teachers, of one-half of his day-school activities.¹ It is suggested, therefore, that in schools where there are community centers there shall be a principal and an assistant principal; that the principal shall be officially responsible for all activities conducted in her school, day or evening; and that there shall be a division of labor between the principal and assistant principal to the end that neither shall be in personal service at the school all day and in the evening also.

With this arrangement it is probable that in some cases the principal and assistant principal of the day school could also serve as principal and assistant principal of the evening school in the same building, especially where the evening school is small and of simple organization, or where there is special supervision of particular activities, such as manual arts, etc. In large evening schools, however, it may be necessary to continue the present plan of separate evening school principals.

Without attempting to work out the details of this administrative plan, the general aims may be summarized as follows:

1. The activities centering in a school, day and evening, both instructional and otherwise, should be unified as completely as possible from the community point of view.
2. The principal of the day school should be the recognized leader of the community activities centering in the school building.

¹ In another chapter of this report (Ch. XV) a similar suggestion is made with reference to the employment of day-school teachers in the evening schools. Inasmuch as an evening session is reckoned as equivalent to one-half a day session, teachers in the evening schools should not teach more than one-half of a day session and should be paid a full day's salary.

3. The pay of the principal and assistant principal should be commensurate with this broader conception of their functions in the community, and should be sufficient to attract to this broader service the best ability obtainable.

4. The additional burden placed upon the principal and assistant principal by this broadening of their functions should be compensated for by providing that each should be in personal service at the school building only morning and afternoon; morning and evening, or afternoon and evening.

5. It must be recognized that ability to direct properly the instructional activities of the evening school may not be coincident with ability to direct recreational activities. The evening school, as well as the day school, must be in charge of a trained educator.

SOME EXTRA SCHOOL AGENCIES OF CIVIC EDUCATION.

It was intended to include in the survey of civic education agencies other than the public schools that perform, or that might be expected to perform, positive service for the civic education of the people of San Francisco. The limitations of time prevented more than a beginning of this aspect of the survey, which by its very nature would be far-reaching and complex. There are two or three of these agencies, however, that are so closely related to the public schools that brief mention of them is made in conclusion.

One of these is the public library. It will be a great opportunity lost if the means are not provided by which this institution, now about to move into new quarters, may make available for the use of school children and others materials pertaining to their own community life. This should include the publication of bulletins, or leaflets, or a journal of some kind, covering in the course of time every phase of the life and growth of the city and State in such form and language as to be usable by immature minds, and organized with direct relation to the work of the schools. The best example of this sort of thing, probably, is to be found in Newark, N. J., where, under the initiative of the public librarian and with the cooperation of the school authorities, "Newark study" has become thoroughly established in the public schools.

All published materials relating to the city and State—historical, departmental reports, publications of public and voluntary social agencies, etc.—should be made available by the library; but more important, there should be special attendants familiar not only with these materials but also with the course of study in the schools, who should have ready at hand the materials needed by classes as the work develops week by week throughout the term, and who should directly assist pupils and teachers in the use of this material. A

room should be set apart for the use of pupils in their study of this material relating to the community; a room where exhibits of pictures and other illustrative materials should be on display. It might be known as "The San Francisco Room." The library may also be the proper agency for the collection of slides and films illustrative of community conditions and activities, which should be lent to schools, social centers, parents' associations, local improvement associations, as needed. The possibilities in this line are almost unlimited.

The working relations between the public library and the schools have been developed only to a very slight extent. The library does not seem to be in any real sense a part of the working equipment of the schools, and with few exceptions is not recognized as such by teachers. More branch libraries are needed; but more especially there is needed closer cooperation between library and teachers in regard to subjects taught at a given time in the schools and materials relating to those subjects available in the library. More definite and systematic provision should also be made for working collections of books to be lent to schools for short periods of time as needed.

Individuals and private agencies have opportunity to cooperate with the schools and the library in the assembling of local materials for community study. A few years ago the City Club of Philadelphia published in bulletin form detailed reports of its Saturday discussions on the general subject "What is Philadelphia doing?" These were available for general use. The Commercial Club of Indianapolis cooperated with the board of education in the publication of pamphlets relating to Indianapolis history and government which have found constant use in the public schools. The Association of Collegiate Alumnae of Wilmington, Del., appointed a committee of college-trained women to compile material relating to that city and State with specific reference to its use in the schools. Many other instances could be cited. There are many individuals and various organizations in San Francisco who by coordinated effort could give impetus to such extension of the usefulness of the public library. Efforts in this direction should be made in full knowledge of the aims and methods of the schools, and the schools should have a supervisor or other representative through whom such cooperation could be made effective. (See p. 366.)

Parents' associations.—In San Francisco there are about 35 mothers' clubs and parent-teacher associations, most of which are federated in the Mothers' Congress. All of these organizations are eager to be of service to the schools with which they are associated. Some of them are highly successful; others are in doubt as to what to do and how to do it. The attitude of principals and teachers toward them varies from that of one who "could not get along without"

her parents' organization to that of another who has no such organization and is "glad of it." This difference in attitude is doubtless due in part to a difference in the methods and attitude of the associations toward the school, and in part to a difference in the principals' conception of the relations that should exist between the school and its patrons.

Whatever else a parents' organization should be or do, it should first of all be an association of parents or patrons seeking to be educated. Of course, the purpose of these organizations is to establish working relations between home and school; but the first step toward cooperation on the part of the parent is an intimate understanding of the aims, conditions, and methods of the schools. The charge of "meddlesomeness," which was sometimes heard in San Francisco with reference to parents' associations, can only be justified when they undertake to "improve" conditions and methods which they do not thoroughly understand.

On the other hand, the principal who finds her parents' association really meddling, really interfering in matters which they do not understand or with which they have no authority to deal, is not thereby furnished with a reason for not having an association; on the contrary, it is the best reason possible why she should have it. There are two reasons for the existence of the parents' organization: One is for what the parents can do for the school, and the other is for what the school can do for the parents. In most cases the parents can do very little for the school until the school has made its work and conditions so clear that they can not be misunderstood.

The parents' association must maintain a broad civic outlook. "Our school" is only a part of a great community school system. Moreover, the school system represents only one, albeit a very important one, of numerous community activities, such as health protection, street development, etc. If the local parents' organization is controlled in its action by local interests alone, without due regard for the larger community interests, group antagonisms are set up that delay general community progress.

The budget of San Francisco for 1916-17 is about \$15,000,000. When this budget was being made up petitions came in from parents' associations, local improvement associations, and the like, which if granted would have increased the total amount several times. Most of these requests were for strictly local improvements—a local playground, street improvements, etc. In some cases, it is said, the request for a local improvement would be accompanied by a protest against a general increase in tax rate. This incident illustrates the necessity for organized community action based on organized

civic intelligence. Instead of a multitude of isolated requests for local benefits, might there not be a carefully thought-out program of playground development, for example, for the entire city and extending over a series of years, for the consummation of which local interests would be, not sacrificed, but merged in the common interest?

A clear-cut civic-educational duty and opportunity rest with the parents' association, the local improvement association, the community center, and other agencies that interest themselves in community progress. The public schools as such can do a vast amount to develop this large civic spirit; but their efforts will be only partially successful unless supported and supplemented by other community agencies which have a clear civic-educational function.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

GENERAL ADMINISTRATION.

1. Responsibility for civic and social education through the various channels of the public schools should be centered in one deputy superintendent.

2. Subordinate to the deputy superintendent there should be a director of health and recreational activities and a director of civic education.

3. The director of civic education should be responsible for—

Planning and organizing civics instruction in day and evening elementary schools. (See pp. 314, 350.)

In cooperation with principals of schools, providing for continuity of pupils' civic education throughout the elementary school by correlation of the several subjects of the curriculum and of school activities. (See p. 315.)

In cooperation with the principals of high schools and the heads of high-school departments of social study, providing for continuity of civic education in the high school and between the high school and the elementary school. (See p. 333.)

Adaptation of civics instruction to group needs in both day and evening schools. (See pp. 323, 356.)

Training and supervision of teachers in service by personal study of teachers' problems, conferences, issuance of syllabi, outlines, illustrations of method, etc. Bulletins containing such materials issued at frequent intervals are extremely helpful.

Serving as a point of contact between teachers and the realities of the community by keeping in touch with current happenings and with reports and publications of public and private community agencies, and by suggesting to teachers questions of current importance for general consideration in classes, helpful materials for class use, etc. (See p. 314.)

Serving as the immediate agent for cooperation in civic matters between the schools and extra-school agencies. (See p. 304.)

Planning and suggesting vital programs for discussion in community forums, and rendering such assistance as may be in making such discussions profitable.

but not dictating the lines which such discussions should follow. (See p. 331.)

In cooperation with principals and with the director and supervisors of play and recreation, seeking for closer coordination of these activities with the civic training of the pupils. (See p. 342.)

General supervision of the organization and utilization of pupil participation in school affairs and in outside community activities and movements as a means of civic education. (See pp. 344, 345.)

4. Pending such administrative reorganization as recommended, much improvement in civics instructions could be made by arranging for frequent conferences of principals and teachers of civics and related subjects for the discussion of methods, and by utilizing the latent leadership of teachers who have been especially successful (See p. 314.)

ADMINISTRATION OF INSTRUCTION IN SOCIAL STUDIES IN JUNIOR AND SENIOR CYCLES

It is recommended:

5. That the "Departments of History" in the high schools be renamed "Departments of Social Study." This will tend toward a better perspective and greater unity.

6. That the heads of the departments of social study, if they are not given direct responsibility for the organization and supervision of the seventh and eighth year social studies, at least keep within their purview these years in their relation to the work of the four years of the high school, and that they cooperate with the director of civic education in giving unity and continuity to the work of the six years.

7. That in arranging the schedules of teachers of civics and other social studies, ample time be allowed for teachers' preparation. The teaching of these subjects is unlike the teaching of arithmetic, for example, in that an event that occurs to-day may entirely change the plan of lesson for to-morrow. New illustrations, new lines of approach, new applications are constantly being suggested and should be constantly sought for. Successful teaching of citizenship through the social studies requires peculiar alertness, adaptability, and close touch with the life of the community and with the experience and interest of the pupil.

REORGANIZATION OF THE COURSE OF SOCIAL STUDIES.

8. The course of social studies in both elementary and high schools and in the evening schools should be reorganized in the spirit and general direction of the suggestions made on preceding pages of this report. For this purpose it is recommended that the superintendent of schools appoint a committee which should include the

deputy superintendent in charge of civic and social education and evening schools (see p. 366); the director of civic education (see p. 366); the heads of the high-school departments of social study; at least one intermediate-school principal; one or more principals of elementary schools; representatives of the teachers of social studies in both elementary and high schools.

SUPPLEMENTARY READING AND LIBRARY FACILITIES.

9. The difficulties now experienced by the high schools in securing a sufficient number and variety of texts and supplementary texts should be removed.

10. An adequate fund should be provided for the building up of the high-school libraries of reference materials relating to the fields of social study.

11. Means should be found for making the public library more directly useful to both high and elementary schools as a recognized part of their working equipment. (See p. 363.)

EVENING SCHOOLS.

12. The courses in civics and other social studies in the evening schools should be more closely adapted to the peculiar needs and conditions of the pupils in these schools, as suggested on page 350 of this report. Further suggestion for the adaptation of work to the needs of evening school pupils may be derived from the statement regarding the ninth-year work of the high schools (see p. 337).

CIVIC EDUCATION OF FOREIGNERS.

13. Provision should be made for more adequate and more appropriate evening school facilities for adult foreigners (see p. 353).

14. Steps should be taken to secure more general and more regular attendance in evening classes of adult foreigners who have not received their naturalization papers, until they shall have acquired facility with the English language, and completed an approved course of instruction in citizenship. To this end the board of education should seek the cooperation of employers of foreign labor and of organizations interested in, or whose membership consists of, immigrants.

15. A course of citizenship instruction should be devised that is adapted to the capacities of adult foreigners, and designed to meet their needs as they pass through the experiences of adjusting themselves to the conditions of life in America. It should be an adaptation of the community civics idea. It should consist less of formal

and technical information about government, and should place more emphasis upon an interpretation of the community life in which the immigrant is beginning to participate. (See p. 354.)

16. In day elementary schools where there are considerable numbers of foreign children especial emphasis should be placed upon instruction in community civics. The methods of approach, the illustrative materials, and the applications of the subject should be carefully adapted to the needs of the group; and the topics assigned for study and the methods by which they are studied should be such as to lead the pupils to discuss them at home. (See p. 356.)

17. The community center is one of the most effective agencies for the Americanization of the foreigner, not only through the evening school work, but also through the forum discussion and the social contacts made possible. Community centers should be developed as rapidly as possible in schools ministering largely to foreign populations.

COMMUNITY CENTERS.

18. The suggestions for organization and administration of community centers made on pages 361-363 of this report are recommended for adoption.

19. Community-center forums should be maintained by the board of education from the public funds. It should be permissible, however, for a community center to establish, of its own free will and at its own expense, any worthy activity for which public funds are not adequate.

PUPIL ACTIVITIES

20. The pupils of elementary schools should be given a larger share of responsibility for the conduct of the school life as a means of citizenship training. The degree of responsibility assumed by the pupil should be increased with his proved capacity to exercise it.

21. Pupil participation in the management and direction of school activities, already developed to a considerable extent in some of the high schools, should be perfected and extended to all high schools. It should be made an important factor in the civic training of the youth.

22. Pupil participation in community movements should be encouraged as a means of civic education, but always under the most careful supervision, and with due respect to the pupils' intelligent appreciation of what they are doing.

23. Gardening and playground activities have value for civic education and should be made regular school activities for this as well

as for other reasons. The directors of gardening, of health, of recreational activities, and of civic education should cooperate closely.

24. The public playgrounds should be administered by the board of education rather than by a separate playground commission (see p. 342). This, however, is contingent upon the reorganization of the board of education as recommended in another chapter of this report, and implies no criticism of the present playground commission.

Chapter X.

MUSIC IN THE PUBLIC SCHOOLS.

I. GENERAL PRINCIPLES AND AIMS.

The values of a subject which aims at the attainment of no obvious material end are likely to be somewhat vague. A discussion of the theories of value sometimes maintained in relation to music may therefore be of advantage here.

The idea commonly entertained of the origin, and therefore of the function, of music is that it arose from "the primal cry." This is the belief of Herbert Spencer, of Richard Wagner, and of many others of lesser note. It is an assumption so plausible and explains so readily those forms of musical expression that are intuitively understood by the layman that it has become a popular doctrine. As presented by Wagner, in his "Music and Drama," it maintains that precedent to articulate speech were sounds or cries that arose intuitively from the mood or feeling of the utterer and were intuitively comprehended by the feeling of the hearer. The cries of birds and animals and the crooning, babbling, and crying of infants are primitive examples. But language later came to endeavor to convey to the intellect of the hearer *knowledge* of the object that excited the feeling. In this endeavor it added consonants to the inarticulate sounds (which were vowels only) by which unconscious subjective feeling had been expressed. This development continued until language became highly intellectual and abstract and addressed the *intellect* of the hearer instead of being intuitively comprehended through his *feeling*.

Music, by prolongation of the vowels, which are the colorful and emotional element in language, must be added to language if the primitive vigor and directness of emotional appeal which it once possessed are to be restored to it. In short, language started with tone, and so long it must return if it again is to become a voice for the expression of what Wagner calls the "purely human"; namely, those deep and powerful states of feeling which are the true essence of our personality, and with which only all forms of artistic expression are concerned.

A divergent view is stated in an unpublished essay by the late W. S. B. Matthews, entitled, "Of Beauty, Strength, and Satisfaction in Music." In Mr. Matthews's belief, music arose from the *pleasure of the ear in tone*, as purified, crystallized sound. The twang of a bowstring, the sound of the wind in the reeds, the song of a bird are the first facts in such a theory of genesis. But tones in succession must be congruous, each related to those that have gone before, to give the impression of an agreeable design, if they convey intelligible meaning to the hearer. Since we have memory, power to compare, to relate part to part, to coordinate, tonal successions grew naturally to have beautiful melodic undulation, agreeable rhythmic design, and orderly and interesting harmonic progressions. Over all was, further, an unconscious revelation of subjective mood, an elevation and sensitiveness of feeling, a poetic quality of thought which addressed our feelings subtly or profoundly as the case might be. Music has therefore three appeals: One to the ear (a sense appeal), as beauty of tone; one to the mind, as beauty of design, arising out of poetic thought; and one to the soul or feeling, as revelation of a mood or state of feeling.

It is evident that the first of these two theories directs the thought primarily to vocal music, to song; and the second to instrumental music. The first causes us to think of music as an expression; the second to think of it from the standpoint of impression. The one would turn to the voice as its first interest in a process of musical education; the other would turn to the ear. One seems to regard the individual as strongly active at the moment of musical experience; the other to regard him as sensitively receptive. The one implies stimulation of emotional life and full abandonment to its expression; the other in a word, appreciation of music. Expression (and therefore intensification) of feeling, or, on the other hand, satisfaction in idealistic design wrought in tones—these in a general way are the contrasted implications of the two theories.

It is clear that both theories have place, and that music has a dual nature. The two forms have grown up side by side, and each can claim a history and display a characteristic line of development. Always, however, they are found intertwined, inextricably mingled; and without doubt the full orb of music requires the inclusion of both types of musical expression.

It is assumed that the purpose of this report is that appreciation is the general aim in a system of public instruction in music. In a conservatory of music, where a select body of students is gathered whose aims are mainly vocational, appreciation may be taken for granted, and practical ability and expression of the individual may be emphasized. But when all the children of all the people are instructed in music at public expense, and the vocational aim is an in-

frequent and incidental one, it must be because the people generally wish their children to come into the sympathy with the beauty in music that is handed down to us in the imperishable writings of the world's great musical souls. They would have them vibrate sensitively to the dignity and manly strength of a Bach, the celestial beauty of a Mozart, the nobility and prophetic depth of a Beethoven, the world-shaking passion of a Wagner.

In this the people are right. None but a sordid and unsatisfying civilization, that turns to ashes in the mouths of the successive generations that press forward, can be founded upon a system that aims at material accomplishment. Elevation of feeling, aspiration toward a remote but ever beckoning ideal, a striving of the soul toward beauty, nobility and sympathetic vision—these are qualities that must be possessed by a free and progressive people quite as much as handiness in material production.

By appreciation is meant not mere ability to name a composer or a piece of music that is heard, but a sympathy and intelligent understanding that waits, hushed and uplifted, to receive the message that speaks in the tones. To be able to recognize composers, compositions, and performers is a social satisfaction, but is not appreciation. It does, indeed, betray a wistful desire to appreciate and to that extent, at least, is good; but until the strength, nobility, and beauty of thought and feeling that were in the soul of the composer have passed over into the soul of the hearer there to remain as a subtle power of his own, modifying his nature, there is not appreciation.

IV METHODS AND PRACTICES IN GENERAL

What methods and practices in public-school music will lead most surely to the attainment of the ends outlined in the foregoing paragraphs?

Two outstanding facts are to be immediately reckoned with. The one is that the pupils at the beginning of their public-school life have no path of approach to practical study of music except through their voices, and while we wish to teach *music*, not singing merely, we are necessarily held to this one path of approach. The other fact is that true appreciation must ever rest upon a foundation of systematic knowledge quite as much as upon intuition and unanalyzed experience. One outline of music work for the public schools of San Francisco worthily begins with this quotation from Julian Hawthorne: "There is no culture without roots . . . Solid knowledge and comprehension can never be attained by accepting summaries and epitomes." Applied to public-school music this means that a knowledge of our tonal systems and their staff notation, ability to read music at sight, and a knowledge of musical structure

are necessary. Not only this but in the more advanced years of school life knowledge of musical biography, history, form, and esthetics, in plentiful detail, must be imparted if anything like true appreciation is to be attained.

In planning methods of instruction in music the obtrusiveness of the first fact has led to difference, misunderstanding, and misdirection. The pupil studies music through the medium of his voice. His voice must, because of much use in singing, be carefully guarded, conserved, but he is not to be trained individually as a singer. To attempt this would be most unfortunate. It would place under conscious direction of the untutored mind of the child a complex physiological action that goes on in a far easier fashion if left unconscious, and it would lead him to think in terms of action instead of hearing upon every occasion of his approach to music. Again, the singing is very largely connected with words. Unless songs are presented in such a manner as to counteract the tendency, the pupil soon comes to conceive all music as song-story, the text (or plot) of which he must try to supply from his imagination if, as in absolute music, no "program" or text is given. This error, arising in public schools, leads, more than any other single factor, to that spurious form of musical appreciation which seeks to put under every sonata, symphony, or even fugue, a picture or a story, and which has led to such absurdities as the invention of the title "Moonlight Sonata" for Beethoven's opus 27, No. 2, together with a quite untrue story about the circumstances of its composition. When the error is manifest the grade teachers must probably be charged with some measure of fault. Quite naturally they know more about literature than they do about music, and the salient fact about a song is to them the text, not the tones. They are quite likely, therefore, to "dramatize" the song, which means that the words are likely to be emphasized and the events or scenes which they describe made as vivid to the imagination of the little learners as possible. Frequently the song may be acted out as a little drama; at least motions are likely to be added to quicken the realism of the impression. The result is that the children in their singing are seeing scenes instead of listening to tones, are visualizing instead of hearing. That a measure of this imaginative, visualizing is proper no one will deny, but that attention to the tonal facts of music is the paramount consideration in any system of instruction that seeks to develop genuine musicianly appreciation will probably be as promptly conceded. Again, the undue emphasis upon the words as a factor in the song when song seems to be, for the time, the whole of music, may sometimes lead to an inartistic kind of expression that novelists would call "local color." Quite without reference to the place of a note in the smooth

and balanced flow of the phrase, this method would, if a graphic word came upon the note, cause it to be accented, held unduly, or even spoken. A song in such case becomes an elocutionary effort rather than a song, and the very burden of attention given to the song side of music leads to the momentary destruction of good singing in favor of declamation and harsh and misplaced vocalization. Finally, the persistence of this aspect of singing as an end instead of a means may lead, in more advanced work, to another misunderstanding of the nature of musical experience. If the songs are sung with feeling, with abandon, a certain physical exhilaration is often experienced. It is probably true that this purely physical exhilaration often is mistaken for esthetic enjoyment and is believed to be a kind of reaction that properly falls under the category of musical appreciation. If too much emphasis is laid upon the vigor of physical performance and too little upon delicacy of conception of the music, this unconscious fallacy is very likely to receive strong encouragement.

The second outstanding fact that is constantly operative in shaping methods and features of practice is the necessity of giving the pupil ample technical knowledge and power as an essential to his full appreciation of music. The difficulty here is in maintaining a musical habit of mind uninterruptedly during the process of technical development. Music must be so presented that no technical fact is unrelated to musical experience and interest. If this principle is ignored a technical system may indeed be developed, but in such a way that it is quite insulated from the body of warm artistic feeling possessed by the student; and it will then stand quite arid and unfruitful, a piece of machinery with no worthy work to perform. Technic alone, so developed, has interest for the pupils, and the interest shown is often felt to constitute ample justification for such a system of instruction, but the quality of reaction upon the individual, which is the one important aim of musical education, is lacking, the gleam of the esthetic is missing, the mind and the heart do not keep time.

Technical study, then, must be guided and inspired by musical interest; technical facts must hold significance to this musical interest and must be discerned through the medium of its sympathetic search. Methods and forms of practice have differed most widely in the past and continue so to differ, with regard to their treatment of this fundamental problem. Sometimes the danger of insistence upon systematic technical study is so much feared that it is almost abandoned, and a course in singing that is little more than rote singing is the result. More frequently, especially in the past, the technical phase has been developed in detached fashion, and the "in-

"spirational" side of school music has been lost. Again, a dual course is often found. A song course is begun in the first grade and persistently continued, and, by its side, but with no visible connection with it, a course in technical study is begun and as persistently developed. Finally, there are courses that begin, as all must, with song (by rote, of course, at first) but, in this case, with song only. Later these familiar and well-loved songs are seen in their staff notation and the larger and most obvious of their features are observed. The small technical knowledge first gained is at once applied to the study of new songs of like structure, and each fresh advance in technical understanding is at once followed by like further application in other songs. Never is the pupil's freedom in musical expression made to wait upon the building up of a complete and independent system of technic and never does the technical tact fail to have immediate and urgent musical significance. By this plan the technical facts *explain the song that is in the focus of attention* rather than *constitute music in the abstract*. This method is now well worked out in detail and is known as the "song study" or "observation" method. The other method, because it proceeds, at first by conjunct motion, and requires the pupil to arrive at his tones, in sight reading, by reckoning up and down the staff along the scale track, is known as the "scale" method. In a very broad classification, there are only these two methods, but there are numerous variations due either to the comparative amount of emphasis laid upon the one or the other of the two phases of musical study, or else to difference in minor details.

III. VOCAL PRACTICE AND THE SINGING OF SONGS IN THE ELEMENTARY SCHOOLS OF SAN FRANCISCO.

In applying to San Francisco the principles outlined in the foregoing sections, one preliminary observation must be made. The most important problems met with in the survey of the music department were not problems of educational method and practice, but problems that arose in relation to forms of organization and administration imposed by statute and tradition upon the music department and upon the whole school system. These problems, in importance, deserve to be given first place; but as they are, notwithstanding their importance, of quite special nature, and outside the field of specifically educational investigation, their consideration has been deferred to a later and separate chapter. The present section will therefore be given to an examination of methods and practice in school music teaching as found in San Francisco, considered from the pedagogical side only.

In making the survey of music in the elementary schools 30 schools were visited. In these schools the work of the pupils of 160

rooms was heard. Some of this work was by separate classes in their own rooms, some of it was by larger groups of pupils, up to as high as eight rooms, in song recitals, chorus practice, and sight singing. Lessons conducted by the head supervisor, the assistant supervisor, special teachers, and regular graded teachers were all included, and schools in every part of the city were visited, bringing under observation the results attained with pupils of various nationalities and various types of home environment, and in schools of various kinds, such as schools for girls, primary schools, and intermediate schools. A good cross section was thus obtained and the work seen was undoubtedly representative.

In general the trend of work in San Francisco is clearly toward vocal expression rather than toward general tonal receptiveness; and it must therefore be classified as resting upon conscious or unconscious acceptance of the "primal cry" doctrine rather than upon the "pleasure of the ear in tone" belief. The manifestations of this prevailing vocal trend were distinct and persistent throughout the entire term of the survey. Instructions in the manner of sitting, to secure good breath control, and directions to breathe deeply were constant. A few moments taken to breathing exercises were usually a feature. Vocalizing to various vowels, on scale and arpeggio successions, was often practiced, with intent to secure relaxation, proper voice placing, and flexibility of voice.

Turning from vocalization specifically to the singing of songs, physical exhilaration and incontinent neural abandonment to the act of singing were often encouraged. In the primary grades the picture drawn by the words was usually intensified by supplementary descriptions from the teacher, and so-called "dramatization," i. e., acting out the story by poses and movements on the part of the pupils, was developed to a point that implied systematic plan and effort. Attempts to secure "local color" by emphasizing or giving some sort of elocutionary effect to a single word or phrase, without reference to balanced musical delivery, were not so frequent, but occurred frequently enough to attract the observer's attention and comment.

In one or two cases this declamation advanced to the point of ignoring the tonality of such parts entirely; but this degree of emphasis was evidently sporadic, representing the vagaries of individual teachers. Much more serious was the effect which this desire for highly vitalized and unrestrained vocal expression had upon the accuracy of the reproduction of the song. Freedom of expression became markedly paramount, in several cases, to nice accuracy of ensemble and fidelity to the facts of the composition. Indeed the singing sometimes suggested the quality of improvisation rather than reproduction.

There was also a tendency to encourage the singing of the song inaccurately in a whole-souled way rather than jeopardize freedom in an endeavor to be correct. This tendency reached its highest point and its most regrettable results in connection with part-singing. Rather than interrupt enthusiastic abandonment to the delivery of a song, or delay the day of its performance by insistence on the correct learning and carrying of the parts, pupils were repeatedly permitted to sweep along in the current of hearty singing when they were not getting a note of the part to which they had been assigned, but were, instead, all singing soprano, either in the proper octave or an octave lower. Often, in consequence, the pupils were quite unconcerned as to their performance of a lower part and, indeed, probably did not know whether they had carried it or not. A distinct loss in musical power is implied by this condition. However, the matter of part-singing must be discussed in several other aspects and is to be made the subject later of a separate paragraph, so no further comment need be made here.

It is not to be supposed that the practices described above are all condemned here as being in themselves bad. On the contrary they are, with the obvious exceptions of unfaithfulness to the facts of the music and the substitution of dramatization and declamation for musical beauty, good and desirable practices that may well be incorporated in any system of instruction in music in public schools. The problem is one of comparative emphasis, and the doubtful aspect of the situation is not that these practices are present, but that other practices are absent or are present in too meager proportion, being crowded out by the vocal practices.

It should be noted, too, that the practices described are very efficiently carried out and in some cases are extraordinarily well done. The vocal practice, including breathing, was never blundering and was usually quick, concentrated, and efficient. The wisdom of formal and conscious vocal practice for children in primary grades must, it is true, be seriously questioned. Indirect and unconscious means for inducing the proper vocal action are undoubtedly preferable. These take no time, and the danger of artificial tone production, which is ever present even with mature students of voice, is by such means avoided. But if conscious vocal practice is admitted at all, that in the schools of San Francisco must be given good ranking; and, further, the effort evidently was preponderantly to induce a frame of mind which would evoke the desired vocal response rather than to focus attention sharply upon the physiological act. This, however, was too frequently attempted through the medium of formal vocal exercises, upon which a mood was arbitrarily laid, rather than through the influence of songs expressive in themselves.

Nevertheless, it may be said that, as a net result of the course as a whole, the voices of the children in the schools of San Francisco are, except in one department of the work, well taken care of, are never injured, and are frequently, in the case of groups of pupils and individuals, given exceptionally valuable development. A notable instance of such valuable development was observed in the higher grades of a girls' school. The voices here were, of course, all practically uniform and for this reason and by reason of the age of the students were well adapted to concerted vocal practice. The result was an exhibition of fine vocal technique and beautiful singing that was extraordinarily delightful.

The tone sought by those in charge of the music work is the light, head voice, "thin register" long ago accepted by practically all who deal with the singing of children as the natural and proper tone for them. Occasionally instances were observed, however, of a forced throaty tone. When this occurred it was invariably due to a desire on the part of some teacher to secure greater "effect." Mass and breadth of tone are desirable to the adult listener, especially if he is not an expert in dealing with children's voices and consequently is not trained to appreciate the beautiful delicacy and flexibility of their tone above the robust effects produced by other media of expression. If the song is one demanding intensity of dramatic expression or heroic quality, there at once arises the danger of forcing the children to a strength or breadth of tone that is unmusical and injurious.

The nature of the music usually provided for children is such that this difficulty does not arise. It is simple, naive, untroubled by the passionate dramatic quality that invests much of the music written for adults, and which springs from a background of world experience that is all unknown to the child. Schumann, Reinecke, Taubert, Nevin, Eleanor Smith, Jessie Gaynor, and others have given us such a song literature appropriate in content as well as in vocal register; and many such may be found among the folk songs of many nations. But occasionally, as, for instance, in connection with patriotic exercises, the child must sing the more robust songs of maturity; and sometimes he is trained to sing songs of dramatic type, such as the fervid airs of lurid operas, in obedience to a mistaken method of inculcating "appreciation." That he should sing the patriotic songs is right, but he should sing these in his own true voice and not as a pseudoadult. This proper method of singing is the rule in the schools of San Francisco, and departures from it are to be regarded as deviations arising from insufficient strength of supervision and a lamentably meager supply of material.¹ Further, the song material which the department has by heroic effort and against many difficulties provided the children has been uniformly of high musical value.

¹The section on Administration treats of these phases more fully.

and almost invariably appropriate to the voices of the pupils and to their particular stage of thought and feeling.

Up to the time of the change of voice the voices of all children, girls and boys, are simply treble voices, practically equal for all purposes in range, timbre, and strength. The time of change is, with the exceptional individual, in the sixth year in school, is more marked in the seventh year, and is well-defined feature in the eighth year. If the school has a large number of pupils who have been retarded in grade because of the necessity of doing wage-earning work out of school, or ignorance of the English language or other cause, the number of changing or changed voices in the seventh year will be greater. Highly favored localities, on the other hand, may show few adolescent voices or even none in the eighth year. The practice of teaching in these years must accordingly be very flexible, and a wide range of material, offering an adequate repertoire in each of several types of part songs, should be provided.

Prior to the change of voice, however, two-part singing and later three-part singing, with treble-voice parts only, is a desirable and universal feature of school music. Through some sort of inner development, rather than outward training, pupils seem to demand, at a certain time, the harmonic quality, the blending of voices in harmonic parts. An investigation of public-school music in the United States by the United States Bureau of Education¹ showed that this demand was recognized with surprising unanimity as taking rise in the fourth year in school; and the introduction of two-part singing was accordingly reported, in the great majority of cases, to take place in that year. Three-part singing, using treble-voice parts, was found to be the norm in the sixth and seventh years, and three-part and four-part singing, with a bass part included in the practice, was usually found in the eighth year. This general practice may be regarded as approved and correct.

In San Francisco two-part singing is, in accordance with this general practice, introduced in the fourth year and is continued in the fifth year. It is not, however, developed in the fifth year as fully as it should be, and the development of part singing in the succeeding years is weak in amount and incorrect as to method. Lack of proper material is unquestionably the most potent cause of this shortcoming, which is the most serious one met with on the educational side, especially in relation to the seventh and eighth grades; but lack of material does not explain all the shortcomings with relation to these grades, and does not account to even an equal extent for the questionable methods of procedure in the fifth and sixth grades. Here another cause is undoubtedly operative, namely, a comparative lack of interest in the singing of lower parts, due to too

great a liking for spontaneous, enthusiastic, unpremeditated singing as contrasted with the thoughtful, musicianly training which part singing implies.

Another phase of the treatment accorded part-singing does not find so ready or so satisfactory an explanation in theory. It is the practice of classifying voices into parts upon the quite irrelevant basis of sex. Prior to the beginning of the change of voice all voices of children of both sexes are treble and have approximately the same range, which is that of a soprano. Part singing, in the earlier years in which it is adopted, is therefore not a practice necessitated by the presence of different kinds of voices, but is rather for the purpose of enriching the musical enjoyment, experience, and power of the pupils. There is no tone in either part of these school songs that is not within the range of every pupil—their voices being equal—and, indeed, the whole range of both parts is frequently compassed in unison songs, such as the "Star-Spangled Banner." There is, therefore, no possible harm in singing one or the other of the parts, provided that that part is not invariably taken.

To sing a certain one of the parts invariably would, of course, be unfortunate for two reasons: it would tend to warp the voice to one side, or at least would permit one half of the voice to deteriorate through disuse; and it would deprive the pupil of the growth in musical comprehension and power which comes from singing in various relations to the ensemble. Accordingly, the approved practice is to divide the room quite at random for one song and reverse the assignment of parts on the next song. Also it is a good and common practice (totally neglected, however, as far as could be observed in San Francisco) to have *all* pupils practice each part, when the parts are tried separately, before attempt is made to combine them. These practices insure equal and proper vocal and general musical development to all.

The practice in San Francisco, as observed almost without exception in a wide range of schools, is unfortunate. The boys are segregated on one side of the room, the girls on the other, and the boys are then invariably assigned the lower part. This practice tacitly affirms, to the minds of the pupils, first, that boys' voices differ from girls'—which is untrue, in the sense implied—and, secondly, that the nature of the difference is that they are lower, which is a lamentable untruth. Such practice tends to exaggerate, on false premises, the separateness of the sexes, to warp the voices of the boys, and, though increasing their musical power, to withhold similar growth in power from the girls. Fortunately there is so much unison singing in most grades in San Francisco and such careful and skillful treatment of the voice in special exercises that any possible detriment to the voice

is avoided, but the thwarting of proper musical development is a sure result.

The unfortunate results due to the method of managing part singing reach their culmination at the seventh and eighth grades, where changing and changed voices are present. The boys' section here, which is still continued, consists of quite unequal voices. The majority are always trebles. These are seated with the basses and are assigned the same part as the basses. This part is sometimes an alto, sometimes a bass part. If an alto, the treble-voice boys may carry it quite successfully—or could do so, if they had the music before them—but the basses, who are singing an octave lower, and whose voices are not yet matured to the full reach downward of adult bass voices, are led uncomfortably low. Soprano an octave lower, is, for the majority of its tones, a more convenient register for them. Having often no music to guide them, being uncertain as to what they are trying to do, having the impulse and being encouraged to sing freely, it is small wonder that these immature basses promptly gravitate to soprano an octave lower. But the soprano so sung is likely soon to exceed their range on the higher side. In such predicament they sing the melody two octaves lower, or mumble an inchoate part that, at its harmonic best, follows the undulations of the melody in perfect fourths or fifths.

Meanwhile the boys with unchanged voices are affected by the example of the larger boys and swing from their alto to the soprano in any octave that is comfortable to them, usually singing its lower tones in the higher octave, its higher tones in the lower octave. If the part assigned all the boys is a real bass part, written on the bass clef, there is considerably more hope for the basses, but obviously the treble-voice boys are quite improperly assigned and are at a disadvantage. It is a physical impossibility for them to sing the bass part where it is written, for they have treble voices. If they sing it an octave higher, as I heard them do in some cases, they frequently cross to tones above the soprano. The abnormality of this is sensed rather than understood by them and they, too, take the familiar route of escape, namely, they sing the soprano. Unison singing, in short, is the rule. This might not lead to ill results if it were systematically adopted, done by intention, on properly selected material, and were clearly understood by the singers. In such case the negative ill of lack of training in a richer and higher form of musical practice would be the only one that would result. But unison singing by unequal voices and when the intention is rather to sing in parts is very bad. Pupils come to think they are carrying a part when they are not, and utter confusion as to the nature of the various parts and the nature, range, and possibilities of their own voices results.

The pitch of tones on the bass clef as compared with treble, and the relation of their voices to the pitches indicated by the treble and bass clefs is subject to serious misconception. Oddly enough, the result to the ear of the hearer is not as unmusical, as might be expected, for always there is a fine rich mass of girl and boy soprano tones singing the melody, and the ear follows this attractive line of tone and ignores the vague murmurings beneath. Then, again, the lower-voiced pupils have quick ears and they change octaves with facility and rarely sing long out of tune. Only by sitting down with the boys and singing with them does the full extent of their malpractice become evident.

The voices do suffer more, however, in these upper grades, not so much through strain as through the acquisition of bad methods, due to continued attempts to sing low. The efforts of the treble-voice boys to sing bass—a yearning ambition with almost every boy unless carefully guided—are particularly unfortunate in this respect. Still, vocal practice is so carefully guarded in other ways that the evil effects of this faulty part-singing are largely counterbalanced. The loss in true musical understanding is the greatest and most irretrievable one.

To correct the condition described, several steps should be taken. First, plenty of music, suitably arranged for the voices of the grades involved, should be provided. An abundance of good material is available and its cost per pupil is slight. The provision of music in the San Francisco schools, not only for these grades, but throughout the system, is shamefully meagre. The boys and girls of the city deserve better treatment. In musical endowment, quick response and fine spirit they are alike admirable, and it has been a joy to be with them. If the adults of San Francisco could see how readily the children respond to all that is done for them, and could see how much more richly the children of many other cities are provided for, I feel certain that their own children would no longer be deprived of their rightful heritage.

The memory of a recitation by two eighth-grade classes combined remains with me. They essayed with eager interest to sing for me a chorus or two in three parts—two treble parts and bass. Of music there was none, except a copy for the pianist. The pupils had, however, written the words of the songs, along with the words of many others, in some blank books they carried; and under each word was the initial letter of the musical syllable which represented the pitch to which the word was to be sung. The singing was almost a complete failure for all but sopranos—who, of course, remembered the tune. Teachers and pupils were alike disconcerted and embarrassed. There was but one thing to say: Given half a chance, those pupils would have acquitted themselves admirably, but they were

handicapped. They need have felt no shame for their work, for they did all that was humanly possible; but one dollar's worth of music would have transformed the lesson.

The second recommendation is to stop the practice of segregating the boys and assigning them the lower part. In the matter of classifying voices as to range, assigning them to parts that lie within this range, and giving each pupil an intelligent conception of his voice, not as to tone production and placement, but in relation to its register upon the staff, in both treble and bass clefs, and as an instrument for carrying a part in part singing, there is, speaking generally, no technic whatever in the higher grades in the San Francisco schools.

The first step in the acquisition of such a technic is to accept the obvious truth that boys' voices, until the change of voice, are not different from girls' voices and are, after the change, different from them and from one another. There should be no permanent assignment of a part for any normal treble voice until the seventh grade at earliest, and irregular and changing voices should be known intimately as to range and possibilities by both teacher and pupil and should be provided with music that gives them a suitable part to sing. As the voices continue to change, every change should be observed closely and corresponding adaptations should be made in the instructions given to the pupils.

But let it not be forgotten that, though this technical plan could be adopted at any time, it will be successful, other things being equal, only in proportion to the amount of material provided. Confronted by such a dearth of material as exists at present, the department could inaugurate reform, and this should be done; but richness of attainment along the reformed lines, especially in seventh and eighth grades, is impossible until better material than that now in use and a marked increase in the amount of material is at hand.

This section on singing in the elementary schools of San Francisco should not be brought to a close without comment upon one or two other features that seem characteristic because of their nature and the degree of attention they receive. One of these is the use of songs to develop patriotism. National songs and State songs are kept in repertoire and sung frequently and with admirable spirit. Care is taken, too, that such songs shall be sung under impressive conditions and with earnestness. While specific musical training is not furthered by the practice, ethical and social training is fostered; and in a city where there is a large foreign population this practice has no small influence in Americanizing and unifying the spirit of the city's people. Another value is attained by the practice of having the children assemble frequently in large groups for a period of song. Wherever an assembly hall or large room makes it

possible, groups of pupils from a number of rooms are assembled and conducted through a program of attractive songs. This practice, like the preceding one, does not aim at or attain musical value specifically so much as it attains elevation of the social spirit in the school and the development of fraternity of feeling.

In one school, where practically all the pupils are Italians, this concerted singing attained a quality and realized a result of quite extraordinary nature. The pupils from eight rooms were gathered in a basement assembly hall and there they sang songs in English and Italian with a fervor, a rapt concentration that I have never heard equaled. The racial heritage of a musical people here came to the surface in all its ardor, all its sensitiveness, all its longing. Those children in future years will certainly remember the American schoolroom, where all that was most profound and vital in their natures was in some subtle way called forth as though in dedication to the high purposes of life with abiding love and with active gratitude for the American institution that so uplifted them.

IV. TECHNICAL INSTRUCTION IN THE ELEMENTARY SCHOOLS OF SAN FRANCISCO.

Any course in music in public schools is shaped largely in accordance with the basic texts in use. If these texts represent, in kind and amount, the free and comparatively unrestricted choice of the department, the principles and aims of the department may reasonably be evaluated by an examination of the material. In San Francisco, however, the selection of material has been somewhat hampered and the provision of it has been sharply limited in amount. The causes for this will be discussed in the chapter on administration. A consequence is that some slight divergence exists between material and forms of practice.

The basic text used in the elementary schools of San Francisco is one which represents a rigid adherence to the older of the two methods described in section 2, namely, the "scale" method. Practice in San Francisco follows the method very largely indeed; yet there are some features in the practice that suggest to the observer that such conformity is due to the necessity of using a text according to its intention, for the sake of efficiency, rather than to the complete sympathy of the department with the ideals and aims of the course. For instance, the most clearly marked trend of the work in San Francisco is to give to the pupils enthusiastic pleasure in singing—pleasure in the act of singing rather than in the general musical impression that the song in turn creates in the singer; but the books in use, in their rigid adherence to a plan of technical instruction, are

distinguished by a remarkable dearth of songs, and imply a desire for intellectual and aural attention rather than ebullient joy in song.

The course in San Francisco is therefore a dual one, with the inspirational and technical activities sharply separated. This is unfortunate, for technic should add its power and broad enlightenment to music proper, and musical understanding and interest should impel, direct, and illuminate all technical study. The two should interpenetrate so completely that they form but one clear design, expressed in one result, namely, intelligent and sympathetic appreciation of music. However, to maintain the two phases and yet treat them separately is not so bad as to omit one or the other altogether. If a union can not be secured a balance may at least be kept.

But what sort of balance is maintained is the next question, and the answer given without hesitation and as a result of wide and careful observation is that inspirational singing is more developed in San Francisco than is technical power. The reason is creditable. Musical feeling, even if of a limited kind, is rightly felt to be the important achievement, and if it must be put into opposition with pure technic it usually will and should display superior vigor of growth. A qualifying statement should also be made here. Power and knowledge are not necessarily commensurate, and there is more technical knowledge than power in the schools of San Francisco. This is merely to say that the knowledge gained is not fully applied and consequently remains academic.

Time after time pupils were observed to answer correctly questions about signatures, measures, etc., and then display comparatively slight ability to read music in the keys and kinds of measures discussed. This is due to the duality of the course, as previously described. A goodly amount of singing on genuine songs is rightly wanted. These are not in the books and practically no money is spent for such material. This parsimony compels a most extraordinary amount of mimeographing of songs. But even then the children can not be supplied with copies. The prevailing plan is for the teachers each to be supplied with a copy and for the pupils to learn the song by means of blackboard copies, copies that they themselves make, or no copies at all.

All the devices adopted are alike in one respect—they lead to a large amount of rote singing. Part singing suffers particularly from such makeshift methods, for a part song can not be successfully learned and retained in memory through rote singing. It must be repeated here that this lack of musical material alone is sufficient to destroy all hope of successful part singing. But if a desirable number of good songs are to be sung at all in San Francisco, they must be presented in such fashion. On the other hand, technical power must be developed through reading music. The books present, preponder-

antly, only dry and unmusical tonal successions in the form of exercises. There are enough of these to enable the student to develop technical power, if he studied them and nothing else; but in the time allotted to music, which is 60 minutes per week, he would have no time left for songs. In this dilemma the divided course taken by the department is a good one; but if an abundance of good song material that could serve also for technical study were at hand, the gain that would result in efficiency and in broadening and enriching the course is surely obvious.

Another tendency that is at variance with the strict intentions of the music books in use was noted in the primary grades of a few schools. It consisted in the adoption of some features of the "song-study" method in a form modified by the nature and amount of the musical material available, and possibly, by the pedagogical faith of the department. The general outlines of this method have already been given.¹ The phase of the "song-study" method found was the use, in first and second grades, of songs of "song-study" type. These were taken from books that follow the "song-study" method, and were mimeographed and sent out to teachers to be copied by them upon the blackboard. No evidence was found, in departmental outlines or by observing the practice in the schoolrooms, of a well wrought plan for dealing with these songs. An outline for first grades directs, "observation work from songs on board," but the exact nature of the work and the specific songs to be used are not stated. Doubtless more explicit directions were given in meetings for teachers; but the conclusion is that the work is vague and unformed, and this is borne out by a survey of practice in the schoolrooms. Against this conclusion must be weighed the fact that the term, at the time of the survey, was in its opening month. Observations of songs could not be expected from first grades at such a time. In one second grade, however, an "observation" song was found clearly and neatly written upon the blackboard, ready for study by the children. Instead, however, of first reviewing the song as a song, the children attacked it, using syllables, as a pure sight-singing exercise. The conclusion from this incident, and as a result of the survey as a whole, is that attempts at the "song-study" method are not fully and systematically developed, but are, because suitable material for their development is lacking, somewhat timidly experimental. The presence of such effort at all, however, brings a different atmosphere into the schoolroom, and the attempts are interesting as giving evidence of tendencies that are at variance with the course in use, and that transcend it.

The school just referred to, in which an "observation" song was studied in second grade, exhibited some of the best results seen in

¹ See p. 374.

the system. The tone in singing was ideal, the spirit of the pupils beautiful. They sang with manifest delight, and it was a delight in the beauty of music rather than in the physical act of singing. In sight-singing they were quick, alert, and achieved success through an uplift of mind rather than through a shrewdly rational drive of mind. In consequence their tone remained easy and the spirit of music remained in the rooms. This school, which was a primary school, and embraced but the first four grades, must be held to represent, for those grades, the aims of the department successfully attained, for all was the result of the plan and system prescribed elsewhere, but not so successfully administered everywhere.

The aims of the department, so revealed, are open to very little criticism; but the means used and at hand for attaining them are open to more. If means were better, such results would be more frequent; also the results attained in this same school would be reached by more normal effort on the part of the teachers. Shortcomings in means are, here as elsewhere, the unfortunate quality and insufficient quantity of the material provided and the consequent duality, previously mentioned, of aim and practice. This duality, this balance in opposition of the artistic and technical phases of instruction, is unavoidable while the present material only is at hand. Doubtless the department accepts it as an evil to be borne, rather than as a normal plan to be administered.

The mode of treating monotones which is systematically followed throughout the schools of the city was illustrated in this same school. The monotones, in a segregated group, were encouraged to try various calls, cries, and tones, in high register, using high and frontally placed vowels in connection with consonants adapted to the same purpose, such as m-m. This work was admirably done and achieved quick and good results. The percentage of monotones throughout the schools generally was observed to be small. Furthermore, the departmental outlines present a good discussion of the subject and give valuable directions, and the elementary teachers give evidence continually of clear understanding and live interest. It may be said, therefore, that a real technic for treating monotones is general in the schools, and this technic rests upon the right premise: namely, that the monotone is almost invariably vocal, not aural: that, in other words, he is not defective in recognition of tones, but unskilled or awkward in making vocal adjustments to produce them. He needs only to be lifted from the level of his speaking voice—the mechanism of which he is wrongly trying to use—to the level of his light, small singing voice, and feel the mechanistic manner of its production to be cured.

This cure the plan observed is well designed to effect. It is open to criticism, perhaps, only in two respects—though all authorities

would not agree upon these matters. One is the belief that the manner of breathing affects the monotone in his endeavors to produce the right pitch and that exercises in breathing should therefore be given. It is rather very doubtful if the excessively full breaths taken do not cause a tightening of the throat that increases the difficulty. This same packing of the lungs with breath is systematically practiced with all children in all grades, and is subject to the same doubt in this larger field, especially in primary grades.

The other point is the directing of the child to conscious positioning of his lips, tongue, and jaw. The outlines suggest this, and a little of it was observed. To the extent that it is done it is bad. The child can not direct the physiological process half so well by conscious manipulation as he can by unconscious imitation of the tone and manner of the teacher. He is likely, rather, to fall into a host of bad practices if he thinks how (physiologically) he sings at all. But in practice, in San Francisco, reliance is placed, in the main, upon imitation of the mood, manner, and tone of the teacher; and the results generally are so good that there can certainly be no serious misdirection. Another suggestion that might be offered, however, is that the result can be obtained with less effort, less disarranging of the regular schedule of school activities, and with less danger of making the child self-conscious, by a plan¹ of individual singing, systematically carried on as a regular part of the daily lesson, than by these special lessons for monotones.

A feature of practice that was observed with depressing frequency was the use of the old "hand signs" for indicating steps of the scale that were to be sung. The practice is an official part of the course, being required by the departmental outlines. It is quite useless, and is even deterrent. The symbols for tones are notes upon the staff, and when the time comes for approaching them they may as well be approached directly. To learn other symbols, of totally different nature, does not facilitate learning the regular symbols later. To delay—and do something else meanwhile—is not to prepare.

Yet in the San Francisco schools two sets of symbols other than those of staff notations are regularly used, and a facile technic on the part of the pupils is required in each form. The two are "hand signs" and what is termed in the departmental outlines the "vertical staff"—often termed the scale "ladder." It consists of a ladder-like figure having eight rounds, labeled with numbers from 1 to 8 and the corresponding syllables, *do to do*. A third device that is also used in first year is an outline of a stairway of eight steps, marked as were the rounds of the "ladder."

The staff is not presented in first year, but the scale is taught by syllables, and interval drill is given, using these devices. In second

¹ For a description of the plan, see Gliddings, T. P.: "School Music Teaching."

grades the staff is presented and used, but the use of hand signs and the vertical staff for interval drill is continued. The percentage of time given to this interval drill is moderate, but the practice at all in these grades is divergent from a better road of progress, and the symbols used for it, especially the hand signs, make it still more objectionable.

To separate intervallic leaps from their employment in song, divest them of all accent and rhythm, and then present them, abstract and meaningless and through forms of symbolization that are temporary, and require the child of six or eight years to acquire a considerable technic in them when he might be dealing with music itself—all of this is, to genuine musical education, what skill in solving some form of mathematical puzzles is to live, progressive "number" work; namely, the acquisition of a technic that does not function when applied to the realities of the subject itself. It implies the mistaking of a factor for the whole, the division of one organic subject into a multitude of subjects, each pursued as though it were an end in itself.

There is constant chance in all school music everywhere of a cleavage like this merely because the process of teaching music is complex. The children must use their voices; therefore voice training may become set off as a separate process. They must use their ears; hence a separate set of practices for ear training. They must feel rhythm; therefore the development of rhythmic feeling is sometimes begun as an independent process. They must make skips; hence interval drill. They must sing freely in various musical moods; therefore the singing of inspirational songs again as a separate feature. This list might be added to indefinitely.

It is obvious that if instruction is to be split up into many partial endeavors and the whole time to the subject is to be only an hour a week, some features will be unduly exploited and others will be unduly disregarded. In a large system of schools there will be found, too, teachers of different tendencies, some of whom will concentrate on one feature, some upon another. One instance is recalled of perfectly phenomenal work with hand signs. It was with a third-grade class, but, as the term was just begun, the work was a review of second-grade work, where response to hand signs is especially drilled. The teacher's hand moved with lightning rapidity; it seemed almost beyond the capability of the human eye to follow it, yet the children responded with awe-inspiring infallibility. They sang instantaneously any tone of the scale in any conceivable relation as the teacher's hand indicated it, but the probability is that had a song of far simpler elements been placed before them in staff notation, to sing fluently, rhythmically, musically at sight, with syllables, they would have met defeat.

To modify the innermost subjective moods of the mass of the people in the direction of purification, elevation, and strengthening of mood is the aim of school music; and this must be done almost altogether through the medium of vocal music, delicately and skillfully managed so as to make it produce its utmost. The song is the body and in it all the members meet in intricate and perfectly balanced relation. Not only are all the members in the song, but it is there only that their meaning, their purpose, their mode of functioning can be described. To attack the song directly, therefore, not only saves time but leads to an educational result of quite different quality. It is true that unification can not be always quite complete; the attention must be turned specifically now to one musical element, now to another, for the moment. This is the reason, indeed, for attacking the complete musical expression itself first. If this is done, any element, separated in later analysis from the song, can not be thought of in unrelated fashion as it must be when approached from its own isolated base. There should be constant endeavor, nevertheless, to unify the various processes. In a large system of schools they are bound to draw apart, for the reasons stated above, rather than draw together, unless the utmost effort toward unification is made.

The amalgamating force in San Francisco may be stated as high valuation of the joy of song and sympathy with childhood and consequent discernment of the worth to children of truly musical values. Against this the disintegrating force of the material provided is constantly operative. The books present clearly the divisional scheme—and books always will be, and must be, to a large extent, followed by a corps of teachers. Consequently we have the duality of course, previously described, and the further breaking up of the technical course into the several processes mentioned above.

Several features of instruction remain either for additional comment or for first discussion. Mention has been made of the feature of formal vocal practice as an indication of the trend toward the vocal side of music, and at the same point, and later in connection with the discussion of work with monotonies, the advisability of directing the conscious attention of primary-grade children to the manner of producing, developing, or placing tone has been questioned. The emphasis upon this phase of school music, both in successive outlines to teachers and in practice in the schoolroom, is quite extraordinary. It is mentioned here, in a third critical light, as another of the separate and divergent features that should all be blended.

The vocal practice is not, it must be said again, bad in itself, but is remarkably correct and clever. The points in question are rather the quality and proportion of attention given it, its applicability to

very young children, and its separateness. As revealing the basis for the somewhat critical attitude of this report, it may be said that while the tone and singing in the San Francisco schools is good, it is equaled in many cities where the attention is subconscious as related to voice production and where no vocal practice as a formal and separate step is ever undertaken.

Dictation, oral and written, is systematically planned and admirably carried on throughout all the grades. No feature of practice observed deserves heartier commendation than this. Through it the pupils are receiving valuable ear training. It serves in this respect to balance the too great stress put upon the purely singing phase of the instruction. It was never inappropriate to the age of the child, and, while necessarily a somewhat separate feature, it was never more formally separate than the nature of the practice and the nature of the musical material studied required. If songs were the material provided for technical study, then fragments of these songs and intervals and characteristic tonal features of the particular songs subjected at the time to study could well become the basis, especially in the lower grades, for dictation work; but they are not, and nothing better than is at present done can be done. This statement is sweeping, but is justly so.

A detail of practice that was annoying, but that was sporadic and quite outside the intention of the department, was the constant singing *with* the pupils by some teachers on familiar songs. In one or two primary rooms it is doubtful whether the children have ever heard their own voices unsupported. Their singing would probably be quite weak and flat were the dominating captainship of the teacher withdrawn. The children should be permitted to find their own impulse to sing, within themselves, should hear their own voices so that they can gradually form an idea of the effect produced and the effects possible to produce, should acquire the sense of responsibility and the confidence that unsupported singing by them would give. All of this is obvious, and the practice noted probably is an unfortunate habit formed unconsciously. The regular teachers will have to guard themselves in this particular, as supervision is too scant to guard against it for them.

Individual singing is an extremely valuable practice that should be incorporated, in a systematic and well-planned form, as an integral feature of every school course. It was mentioned in the paragraph devoted to monotonies. As planned by Mr. Giddings, director of music in Minneapolis, it enables the teacher to hear all the pupils in a room individually in three or four minutes, with several valuable by-products secured meanwhile, and with no divergence from the general line of study and progress—no separateness.

The outlines current in San Francisco direct that individual singing be done but provide no plan, and no evidence of anything like systematic practice of the feature was seen during our entire period of visiting. Such work as may be done later in the term is certainly not organized in any such way as to give individual practice regularly to every pupil within a specified period. There is value, of course, in work that falls short of this, but the much greater value of thorough practice could be gained with no increase in the time or effort required. It is the only approved practice that is notably lacking in the San Francisco plan.

There is great interest in instrumental music among the pupils of the San Francisco schools, and, considering the difficulties in the way of its encouragement—difficulties that are in the way of the department of music everywhere, and that will be discussed in the chapter on administration—it has received a degree of attention and support that could hardly have been expected. Pupils who play the piano are sought out, are asked to play for school programs and are appointed to serve as accompanists for the school. Still richer in effect, and requiring infinitely more of a contribution of time and effort from some devoted teacher or supervisor, has been the organization of school orchestras. In several schools visited, orchestras were in process of organization for the term, and their first rehearsal was being looked forward to eagerly. Naturally there was not much to hear, for a number of the more advanced members in elementary school orchestras are always from eighth grades, and these had just been promoted to high schools. The interest shown, however, by all members of the teaching staff with whom discussion of orchestral work was held, and their enthusiastic readiness to give help, was delightful. It revealed another one of the voluntary contributions that devoted teachers and principals in San Francisco make to the school system when opportunities for service to the children would otherwise go by unimproved. Orchestral practice in schools deserves not only such interest but, in addition, systematic administrative provision. No concerted activity that young people can undertake brings forth finer qualities of spirit within them than does their cooperation in orchestral playing. An orchestra in a school helps greatly also to organize a desirable school spirit and to grace public functions of the school. Added to this is the interest in absolute or pure music, as distinguished from song, which it disseminates quite insensibly among the pupils, and the knowledge of orchestral instruments and appreciation of orchestral idiom which it imparts to them. For the sake of these values and others which will be discussed in the section "Music in the High Schools" it deserves to be fostered. At the time of the survey the number of orchestras and the number of players for the current term could not be accurately

foretold; but, while exact figures were not available, it was computed that at the end of 1915 there were about 20 orchestras in the 80 elementary schools, with approximately 120 members.

V. MUSIC IN HIGH SCHOOLS.

Music in high schools is a branch of comparatively late growth. Fifteen years ago only a number so small that it may practically be ignored of even the most advanced high schools had any systematic work in music beyond chorus practice, and in the great majority of high schools this was a recreational school activity rather than a progressive course of instruction. The cause undoubtedly was the academic nature of the curriculum which was then dominated by the college; and to-day, even, the average American college is a pathetic if not a sinister figure in the picture of our national musical development. With the growing emancipation of the high school from the academic traditions of former years, music, along with manual training and other subjects, began to find its place.

It is eminently right that music should have place, and large place, in a high-school course. At no period in life is the individual so well tuned to the message of music and so responsive to the good influences it may radiate as in these years of adolescence. The senses are quick, the imagination keen and alert, the mood nature sensitive, responsive, and intense. The ordered and balanced expression in great music of all the teeming thoughts and feelings that flood the adolescent mind may well prevent ill-ordered and violent expressions of them in less desirable channels. Also, if we are to have in our adult population a body of intelligent and discriminating music lovers, there must be good courses in music in our high schools. The work done in the eight years below will fail and die if progressive interest is not maintained throughout the four succeeding years of high-school life. Again, the work in the elementary schools, even if it were not lost, would not connect with the advanced musical interests and activities of a community. To paraphrase Commissioner Claxton, the elementary schools complete the education of the child; the high schools begin the education of the man. Applied to music, the elementary schools can compass the training of the ear and the mastery of elementary theory and the technic of sight singing, guarding the voice meanwhile. They can not do much more than this (although the way in which this is done has great directive power for the future) for lack of time and because of the nature and capabilities of the minds they are dealing with.

Musical appreciation can not be taught in these early years, because the pupils as a body do not have the knowledge of tonal and formal structure, biography, history, and instrumental development

that are necessary to the true appreciation of absolute music, nor the background of world experience and resultant range of moods that are expressed in great operatic or other emotionally delineative music. The knowledge of form, biography, and history might be given; but elementary instruction and training are more appropriate and urgent at the time, and the advanced knowledge can be gained more appropriately later. The range of moods can not be imparted, and it is injurious to attempt to develop them. The child should be led to think as a child and speak as a child—albeit, a bright and well-educated child. But at the age of adolescence these advanced phases of study and development become highly appropriate, and the foundation work that should be done before they are undertaken has had time for its completion.

A digression must be made here. The age at which the change in educational content should be made, the age at which the education of the man begins, is more accurately 12 years than 14; that is, it arrives at the completion of the sixth year in the elementary school rather than at the end of the eighth. Recognition of this fact by educators accounts for the rapid growth in favor of the "six-three-three" plan, which divides the pupil's school period into six years for the elementary school, three years for the preparatory, or junior high school, and three years for the senior high schools. In the light of it, the present seventh and eighth grades would seem to be outside the reach of the above recommendations for the elementary school as contrasted with the high school. In reply, it may be confessed, that the six-three-three plan, in music as in all subjects, is right, and that the change in the trend of musical education would come better at the time it prescribes. But to make such change implies the adoption of the departmental form of administration, the congregation of large numbers of seventh, eighth, and ninth year pupils in central schools, the provision of an elaborate new equipment, and the division of music into several different branches, some of which should be elective—for surely not even the musical enthusiast will hold that every pupil should be required to study harmony or musical history and appreciation. Until these changes are made it will be necessary to treat the seventh and eighth grades, even if the plan is imperfect, as the summit of the elementary rather than the base of the secondary school system.

Another observation that can be made better parenthetically here than elsewhere is on the buying of talking machines for work in musical appreciation in the elementary schools. In view of the foregoing arguments it would be better to spend the same amount of money for beautiful and appropriate music for seventh and eighth grades—for they need it, badly—or for supplying talking machines

in the high schools, where their installation is urgently necessary, if the newly adopted courses in high-school music are to be carried out.

It has been said that music is a comparatively late addition to the high-school curriculum. In San Francisco its installation in a serious way is very late indeed, dating only from August, 1916. Before that date there had been, throughout the five years preceding, some effort made toward inaugurating such work, but the provisions were totally inadequate to the task of building a broad and strong system. There were five high schools to be served. One teacher of high-school music was appointed and occupied the position for three years, beginning in 1910. By adopting an itinerant program this teacher was able to carry on chorus practice in all five schools. Certainly this work was worth while, and must have been effective in holding hundreds and thousands of girls and boys in some sort of interest in music, but it was far from giving music the power and prestige it should have. Meanwhile another valuable activity, the good effects of which are yet strongly evident, was begun. The superintendent of schools in San Francisco, himself an accomplished musician, gathered for regular rehearsals the players of orchestral instruments in all the high schools, and an excellent high-school orchestra was born. For the three years, coterminous with those during which the chorus work described was continued, the superintendent instructed and directed this orchestra. This unique fact gave the work a most favorable setting, at the same time that it provided leadership of unusual experience and competence. An impetus and prestige were given to orchestra work which will not be lost in years. In 1913 the teacher of music resigned and another was immediately appointed. The superintendent, at this juncture, was forced by the pressure of administrative duties to transfer the directorship of the orchestra to the new teacher, who thereafter had to cope with a still more extended field. Notwithstanding this, the choruses and orchestra were continued, harmony classes were organized and maintained, and valuable instruction in musical biography, history, and application was given as incidental to the chorus work.

One other official effort was made to encourage the study of music, namely, the authorization by the board of education of the granting of credits to high school students for instruction received from private teachers outside the school. In one high school much benefit to many students has resulted from the operation of this plan, but in the other high schools very little advantage has been taken of the provision, and it is practically an abandoned and forgotten ruling. Some divergence of opinion was found even among members of the teaching staff, as to whether the rule was in force or had been rescinded. This uncertainty is due to features of administration which will be mentioned later. The rule, however, is still in force.

While the music that is provided for by official action is the main interest of our inquiry, it is impossible to pass by, without comment and praise, the instances of individual contribution that have often been made to the advancement of the subject. The voluntary effort of the superintendent of schools in conducting an orchestra for three years has already been mentioned. In one high school there was a large library of carefully written and skillfully made arrangements of classical pieces, for first, second, and third violins (in lieu of viola), and 'cello, made by the principal of that school. By such means, a string quartette has been maintained for many terms. In another school one of the regular teachers maintained an orchestra of student membership for two years, during which time they met in his own home every Sunday evening for rehearsal from 8 o'clock to 10. This spirit of the teachers is beautiful, but a city should not leave the welfare of its youth, in any particular whatsoever, so unprovided for that the lack calls forth, from those in position to see it, instant response of a self-sacrificing kind.

The branches of music recommended for study in high schools by the Commission on the Reorganization of Secondary Education of the National Education Association¹ are chorus, orchestral ensemble, harmony, appreciation, and the crediting toward graduation of the study of music applied (as voice, organ, piano, violin, or any instrument of the symphonic orchestra) under outside teachers. As a somewhat exceptional offering, counterpoint is recommended; and glee clubs and bands are also mentioned as of value in some schools and classes, conformable to certain conditions of general departmental organization. It is impossible to discuss here the fitting of these courses into diverse high school systems, with regard to suitable proportioning of the work as to years, hours, credits, and comparative emphasis. Those interested must be referred to the report of the committee on music itself, which would need restatement here almost in its entirety if full discussion were attempted. It need be said at present only that chorus practice, orchestral ensemble, harmony, appreciation, and the crediting of outside study are the basic appropriate offerings in almost any city system of high schools under either the four-year or the six-year plan—though the distribution of the courses among the years would necessarily be different in the two types of schools. As San Francisco follows, in effect, the four-year-plan, that plan will be assumed in the following discussion.

It is necessary to condense also the statements of the report with regard to methods and results that should be sought in each of the branches of musical study.

¹ For the work of this commission, see Bull. 1017, No. 2.

In connection with chorus practice the National Education Association report recommends, in addition to purely vocal phases of instruction, that contributory study be made of elementary theory and sight singing (with less advanced groups) and of musical appreciation (with more advanced groups). To quote an additional paragraph entire: "An invaluable activity further is the learning and performing of some suitable standard choral work every semester by the school chorus, assisted by excellent soloists and accompanied by a large orchestra. No surer means can be found to place the student in sympathetic relation to the advanced musical interests in his community."

Musical appreciation is considered, in the report, to be particularly appropriate for the third and fourth year classes, though it is possible to introduce it earlier, perhaps in modified form, and secure results of value. The course requires the employment of the player piano, talking machine, and chorus excerpts and the contribution of many solo and ensemble numbers by local musicians. Each high-school library must also be supplied with a generously equipped music section containing reference works, textbooks, musical scores, and books for general musical reading. A large number of composers should be studied, "in so far as the works of these masters engage the attention of the world to-day." The compositions studied "should represent all important media of expression, as piano, orchestra, chorus, solo voice, solo instruments, chamber music ensembles, etc." They should also "represent all varieties of form and all larger forms, as the song forms, sonata form, rondo, etc., and the opera, oratorio, cantata, mass, etc." They should be characteristic of a "composer's form or style at his best and most individual moments." The compositions should be studied not only in their individual features, but also "in relation to musical esthetics, with regard to the nature and validity of the musical ideals upon which they rest." The "lecture method with library reference is recommended, as textbooks of the exact kind needed are hardly to be found, if at all. When possible, reported concert attendance should be a feature of the work."

Harmony, according to the report, may advantageously be offered in the first two years of high-school work, though it is certainly not inappropriate to the last two years, and could well be left open to the students of those years, especially if the more mature work in appreciation is not offered in the school, or if counterpoint is not offered. "An academic presentation of the subject" is "heartily condemned." Ear training, carried to a point that involves "aural recognition of all the harmonic material used," melody writing, the harmonization of melodies (preferably original) rather than figured basses, harmonic analysis, and, in general, the use of harmonic mate-

rial in tasteful original expression, are features of the course. The aim is obviously to develop artistic musical power rather than to stock the mind with dry and academic knowledge.

Some brief quotations with regard to orchestra ensemble will present the thought of the committee to the present reader. The report says: "The musicianship that results from ensemble playing is more advanced than that which arises from ensemble singing," and enlarges upon the reasons for this statement. It recommends:

First. The instruments should be played in the manner of their solo capacities, the ideals of chamber music and the refined treatment of each part in a symphony orchestra being ever kept in mind.

Second. Music should be selected that, however easy, still recognizes these particular values for each and every instrument.

Third. The orchestra should be considered an orchestra class or orchestral study club.

Fourth. Instruments should be bought by or for the school to remain school property, and these should be loaned, under proper restrictions, to students who will learn to play them. Instruments such as the double bass, timpani, French horn, oboe, bassoon (or any less rare that are yet usually lacking in any particular school), should be bought.

Fifth. Seventh and eighth grade orchestras, similarly conducted and equipped, should be organized as training schools for the high-school orchestra.

The reasons given for recommending the inclusion of outside study of applied music in the high-school course may be summarized as follows:

The musical proficiency gained is likely to hold richer and more practical value for the student in after life than he could gain by the same amount of time spent on an intermural study.

Pupils constantly are constrained, where this provision is lacking, to abandon music entirely, at the high-school age, or else quit the high school. To force a student to such extremes is unreasonable.

The assumption that a person who pursues three "regular" branches and one course in music every year for four years is less educated than one who pursues four regular branches is untenable.

With regard to counterpoint, which is considered to be an exceptional offering, to be included "only under especially favorable conditions" the most important recommendation is that it be preferably included under harmony, if offered at all, in either a two-year or four-year course, and that it follow "the methods that seek to combine these two aspects of tonal organization, such as those of Percy Goetschius."

It is obvious that all the courses above, with one exception, must be treated as electives. The exception is chorus practice. The arguments for and against making this required, on the one hand, or elective on the other, are set forth at length in the report. An excellent plan with the electives, however, is to group them with other

electives and require one year or two years, or more, to be spent on some selection from the group. This plan insures a degree of flexibility that will suit individual needs and yet provides for educational guidance.

The credit for music is in all cases to equal, hour for hour, that given in other subjects, provided that work which requires no outside preparation, like chorus practice with which no contributory study is combined, shall receive only half credit compared with studies which do require outside preparation. Such an evaluation, however, must not be applied to music only, but to all studies alike.

VI. PRESENT METHODS AND PRACTICE IN MUSIC IN THE HIGH SCHOOLS OF SAN FRANCISCO.

The brief outline of high-school music courses given at the end of the preceding section represents a consensus of opinion based upon much experience. The courses in the high schools of San Francisco, but a month old at the time of this survey, can hardly be analyzed with reference to influence and results; but a discussion of their intentions and provisions in comparison with the standard just outlined will doubtless be of interest. To facilitate such discussion the San Francisco outline is presented here entire:

DEPARTMENT OF MUSIC.

First Year.

Major elective course; Harmony!

Major and minor scale forms; Intervals; Triads and their inversions; Chord relations; Seventh chords; Suspensions; Cadences; Harmonizing of melodies; Original composition pertaining to this period of study.

(Four periods per week; four credits per term.)

Minor elective course; Musical appreciation:

Musical history I; Composers and their works from early period to Bach, Handel, and Haydn; Early church music; Madrigals; Simple dance forms; The primitive orchestra; Oratorio.

(One period per week; one credit per term.)

For all students:

Sight reading; Ear training; and Chorus singing.

An orchestra will be formed upon enrollment of an adequate number of players.

Second Year.

Major elective course; Counterpoint:

Simple counterpoint; Figured counterpoint; Counterpoint in quarter notes; Two and three voice movements; Double counterpoint, etc.; Original composition.

(Four periods per week; four credits per term.)

Minor elective course; Musical appreciation:

Musical history II; Continuing composers and their works to 1800; Early opera; Development of musical forms in Italy, Germany, and France; Development of the orchestra.

(One period per week; one credit per term.)

For all students:

Sight reading; Ear training; and Part singing.

Orchestral practice.

Third Year.

Major elective course; Canon and fugue:

Canon in straight movement; Canon in inversions; Canon accompanied by free contrapuntal parts; Canon in three and four parts; Fugue; Themes; Strict and free fugues; three and four parts; Original composition.

(Four periods per week; four credits per year.)

Minor elective course; Musical appreciation:

Musical history III; The Wagnerian cult; Development of the music drama; Fugue and sonata forms.

(One period per week; one credit per term.)

For all students:

Sight reading; Ear training; and Part singing.

Orchestral practice.

Fourth Year.

Major elective course; Orchestration:

The stringed orchestra; Wood-wind choir; Brasses; Instruments of percussion; Contrast and color; Notation; Conducting.

(Four periods per week; four credits per term.)

Minor elective course; Musical appreciation:

Musical history IV; The modern school; The symphony orchestra; Modern opera.

(One period per week; one credit per term.)

For all students:

Sight reading; Ear training; and Part singing.

Orchestral practice.

The strength of this course is at once evident. It is impossible to estimate the advance in musical power that would come to San Francisco in a term of years if the provisions and intentions of this course were faithfully carried out by an adequate corps of high school teachers of music. There would not only be the direct value comprehended in the advance in musicianship on the part of the music students, but musical standards would be advanced all along the line, in school and out of school, by the silent influence of the standards affirmed in the public schools. The introduction of such a course into the San Francisco high schools marks a forward movement of capital importance. The interest and encouragement of the citizens should be extended to it in full measure, in order that greater numbers of students may join the classes and put forth the quality of effort that

only confidence begotten by an intelligent and favorable public opinion can inspire.

It may be predicted with assurance, however, that experience through a few years will point the way to some desirable modifications in the present course, not in the direction of higher, but of different aims. The course, as at present planned, is special and technical rather than general and cultural, and it plans for the doing of more than can be done, unless certain values to the student are lost.

The major elective course provides for one year in harmony, one year in counterpoint, one year in canon and fugue, and one year in orchestration. Only an academic and unfruitful knowledge of these technical subjects can be gained in the time given. A textbook in each subject could probably be covered in a year, but musical power is a thing of much slower growth. Development of musical power is dependent upon long cerebration, the nature of which is application of the knowledge gained to musical experience and in musical endeavor. That this is the result wanted in the present instance is evidenced by the fact that the major course specifically directs "original composition"—and in directing this deserves and will receive the delighted approval of every teacher who has had successful experience in such work in high schools. But to acquire in one year the ability to express one's self gracefully, in good taste, using all the diatonic and chromatic chord material and inharmonic elements such as organ points, suspensions, passing notes, etc., is impossible. The grammar of monophonic expression could be learned, but artistic comprehension and power could not be developed. The same holds true of the other three years. Much richer results would be obtained by running a two-years' course in harmony, even at the expense of the fourth year's work in orchestration. The remaining two years could, in such case, proceed with contrapuntal work, as now outlined, or, better still, be employed in a way to be presently explained.

The subject of musical appreciation is much the most difficult of all to present to high-school students. The range of facts that it must embrace is extremely extensive and varied. A long historical epoch is, of necessity, examined. Within this epoch numerous composers have lived whose lives must be fairly well known to the students. Tonal systems that are intelligible only in the light of acoustical knowledge have been developed, abandoned, modified, and must be known to the student. National characteristics and historical events have colored and shaped the musical results. Esthetic principles of design, of balance, symmetry, unity, and variety must be understood and appreciated. The larger esthetic of musical art as contrasted with other arts must be comprehended. The nature and capabilities of a great number of musical instruments, at dif-

ferent stages of their development, must be known. Numerous musical forms must be studied and numerous examples of each be analyzed. Such mighty topics as classicism versus romanticism, and the music drama as compared with Italian opera, must be elucidated to adolescent minds.

To take one example, the *Eroica* Symphony is not really appreciated until one knows who Beethoven was, when he lived, what manner of man he was, what the French Revolution meant, why individual freedom, entailing responsibility, brings on restlessness and a "soul struggle," what music had been before Beethoven, what classicism and romanticism mean, what a symphony is, what the sonata-allegro form is, what Beethoven's orchestra was as compared with Haydn's and Mozart's, etc. The subject is endless. And in addition to the quantitative difficulty is the qualitative one of asking comprehension of Beethoven of young people whose background of human experience is too slight and untroubled to form a basis for sympathetic understanding of a struggling giant like Beethoven, and who can compass it only through the leap of a thoroughly stirred and yet carefully guarded imagination.

At the same time, while the difficulties are great, the subject has interest and value for a much greater number of people than has harmony, which, by contrast, is technical and quasivocational. No man or woman is very broadly educated or cultured who does not know something of the matters included under this head, and all can gain such knowledge despite the difficulties. On the quantitative side, then, the course in musical appreciation needs much longer time and on the qualitative side it appeals to a larger number. The conclusion is that it should be a major elective, scheduled for four hours a week for two years. So administered, it could advantageously displace even counterpoint, and certainly orchestration. A knowledge of counterpoint that would be of great value and every bit of which would be fruitful could then well be included under harmony, in a two-years' course in contrapuntal harmony; and, similarly, that part of the work of the orchestration class which holds general cultural value could be included, most appropriately and desirably, under appreciation. Such a plan would make wider appeal; and if we assume that wide diffusion of keenly intelligent musical appreciation, rather than provision of vocational training to the few, is the aim of high-school music courses, the plan suggested is much more desirable. At any rate the harmony course should be extended to cover two years, and the appreciation course should be strengthened by giving it four hours a week over two years.

If, after this basic provision is made, a still wider range of study is desired, counterpoint could be added for two years, as an option

with appreciation, following the two years in harmony. Students who wanted professional training rather than general musical culture would thus find their wants provided for. Technical study of orchestration could also be added, as a parallel course for the fourth year, as an option to advanced counterpoint or appreciation; or it could even be added in the third year, as an option with first-year counterpoint.

At the time of the survey, although the two music courses described above were outlined and were presumably in the first stages of operation, only the harmony course was making headway. There was practically no provision at all for the appreciation course. It must not be forgotten that this course requires generous equipment, consisting, for each high school in which the course is offered, of a player-piano and a library of rolls, a talking machine and a library of records, chorus music, a goodly list of books in the high-school library dealing with musical biography, history, form, and esthetics, and (in the library) some musical scores. The provision of such equipment in San Francisco is an immediate need if the course announced is to be really carried into effect.

Only most fortunate results can be anticipated of the chorus and orchestra work. The singing in the elementary schools furnishes an excellent foundation for chorus work in the high schools, for it is excellent in point of vocal practice and admirable in its enthusiastic spirit. The children in the elementary schools love to sing and know how to sing as a matter of voice management. Encouragement of orchestral playing in the elementary schools, because of the comparatively special and irregular nature of the work, is, in San Francisco as it must always be everywhere, less systematic and effective than the encouragement given vocal practice; but it is by no means neglected and the general attitude toward it is favorable. Of course much more might be done. In fact, children and youths are so pliable and responsive that almost anything can be done with them. The only questions are those of desirable aims and provision of equipment for attainment of the aims.

Orchestral development in high schools or grades depends upon the provision of special teachers and conductors, provision of orchestral instruments, and provision of suitable music in sufficient quantity. The pupils will respond anywhere and everywhere in proportion to these provisions. At present the high-school system of San Francisco is committed, it would seem by the implication of its high-school course of study and by its traditions and past experience in high-school orchestral work, to a policy of encouragement and promotion of orchestral playing in its high schools. Teachers it has provided to some extent, and, to some extent, music. Officially it has not provided instruments, and where these were found in the

high schools they had been secured as the result of individual enthusiasm and effort, and even sacrifice. Thus in one school a member of the faculty who is interested and trained in orchestral work bought last year out of his own resources two violas, two basses, two clarinets, one trombone, and one horn. He was afterwards reimbursed for the outlay by the student body of the school. In this same school another member of the faculty had at an earlier period conducted an orchestra of 27 members for some three years. Similar examples of admirable professional and humanistic spirit have been commented upon earlier in this report. If the school system values the results so obtained, it should now, in accordance with its plan of work, officially undertake the activities and provisions that are necessary. Doubtless this is precisely what, as implied by the new course of studies, it is planning to do.

The response of the students to the offerings of the new course of study impressed the visitor greatly. The new course was so late in announcement that students had selected their courses for the opening term on the basis of the old course, which offered no systematic instruction in music. It will be noted, too, that the new courses are yet in a formative period, and were not all operating at the time of the survey. Notwithstanding these adverse conditions, the following numbers of students, classified as to high schools and branches of musical study, were found to be enrolled:

Music in the high schools

	Enroll- ment.	Applied music (out- side).	Har- mony.	Appre- ciation.	O. chestra.	Mixed- voice chorus.	Girls' chorus.	Boys' chorus.	Total.
1.....	1,200		22		43		50	22	147
2.....	650	50	61	(1)	7		108		221
3.....	800		14		22		38	24	98
4.....	1,100		25		20	1,100			1,145
5.....	1,300		70		21		70		161
Total.....	5,050	50	202		113	1,100	261	46	1,772

¹ Included in chorus.

The significant figures are those for harmony, which represents the most advanced work available to students in the present state of organization. The serious attitude of the students toward music is well displayed in the number of elections to this branch, despite inimical circumstances. It is quite justifiable, too, to assume that the largest numbers so electing, in proportion to the total enrollment of the particular schools, are more representative than the smaller numbers; for a large number does not in this case represent artificial stimulation, but rather a small number represents restraint in point of difficulties in recitation schedules, previously adopted courses, and other deterrent circumstances.

The figures for the study of music applied under outside teachers reveal the lack of a well-understood and completely organized plan, and this should be immediately taken up and provided. The difficulties are the usual ones of standardization of such work. Two solutions of this difficulty have often been attempted in districts in which the course was adopted, but neither has been entirely successful. One plan is to have an accredited list of music teachers, the other is to have an accredited list of studies, exercises, and pieces that are prescribed for all. The first plan is objectionable because, since private teachers of music are not examined and empowered by the State as are school teachers, the responsibility for their accrediting is thrown upon the local supervisor of music, whose self-appointed dictatorship is naturally resented.

If private teaching of music could be placed under State supervision, which for many reasons would be highly desirable, this first plan would be very satisfactory. An attempt was made some years ago by Dr. H. J. Stewart to secure for California such State certification of music teachers. There is not space here to present in its entirety the legislative bill which was drafted, but sections 1, 4, and 5 are quoted following. Some provision of this sort should be adopted.

AN ACT to provide for the registration and licensing of teachers of music in the State of California, providing for a State Board of Examiners in Music, fixing fees and compensation.

SECTION 1. It shall be unlawful for any person who is not at this time engaged in the teaching of music in this State to commence such teaching, unless he or she shall have obtained a certificate, as hereinafter provided.

Sec. 4. Within six months from the time that this act takes effect it shall be the duty of every person who is now engaged in the teaching of music in this State to cause his or her name and residence or place of business to be registered with said board of examiners, who shall keep a book for that purpose. The statement of every such person shall be verified under oath before a notary public or justice of the peace, in such manner as may be prescribed by the board of examiners. Every person who shall so register with said board as a teacher of music shall receive a certificate to that effect, and may continue to practice as such without incurring any of the liabilities or penalties provided in this act, and shall pay to the board of examiners for such registration a fee of \$1. An annual registration fee of \$1 shall be due and payable on December first by each person so registered, and failure to pay this fee within thirty days shall forfeit registration. No certificate so forfeited shall be restored, except upon payment to the said board of the sum of \$10 as a penalty for such neglect.

It shall be the duty of the board of examiners to forward to the county clerk of each county in the State a certified list of the names of all persons residing in his county who have registered in accordance with the provisions of this act, and it shall be the duty of all county clerks to register such names in a book to be kept for that purpose.

Sec. 5. The board of examiners shall meet twice each year, in the months of June and December, for the purpose of examining candidates for registration, and said board is hereby empowered to make such rules and regulations

as it may deem necessary for the proper conduct of such examinations. Any and all persons who shall so desire may appear before said board at three meetings and be examined with reference to their knowledge and skill in the art of music or any branch thereof; and if the examination of any such person or persons shall prove satisfactory to said board, the board of examiners shall issue to such persons as they shall find to possess the requisite qualifications a certificate to that effect, in accordance with the provisions of this act. Said board shall also endorse as satisfactory diplomas from any reputable chartered or incorporated university, college, or conservatory when satisfied of the character of such institution upon the holder furnishing evidence satisfactory to the board of his or her right to the same, and shall issue certificates to that effect within ten days thereafter. All certificates issued by said board shall be signed by its officers, and such certificates shall be prima facie evidence of the right of the holder to practice the teaching of music in the State of California.

Another plan which was mentioned above is to standardize the teaching material. The objection to this is that it restricts all teachers to an arbitrary selection of material, and the output of new material is so prodigious that constant revision and extension of the list would be necessary. Freedom as to method, too, would be jeopardized, and factional disagreements would be sure to follow.

A third plan, which seems to be the only one that can be immediately adopted, is to examine and accredit results rather than teachers or material. Monthly report cards are provided the teacher, and upon these teacher, parent, and pupil jointly report the number and length of lessons, the exercises and pieces assigned, the merit of the work done by the pupil upon this material, the number of hours per week devoted to practice and study, etc. The card is made out in duplicate and one copy is left unsigned. At the end of the first month this unsigned card, which gives a full report of every phase of the work undertaken, is presented to a committee of musicians who are competent and authoritative in the special branch reported, and its merit is passed upon by them. There can be no suspicion of personal prejudice or professional jealousy because the identity of neither pupil nor teacher is disclosed by the card. The judgment reached by the committee as to the merits of the course and the fidelity with which it has been studied is then transmitted by the high-school principal to the teacher of music. At the end of a semester the five monthly report cards by that time received are similarly submitted to a committee. If the course, which must have been acceptable as revealed in the first monthly report, has been maintained at the standard shown in that report, the pupil is then examined by the committee in order to ascertain at first hand the progress reported. Again in the examination the identity of the pupil is not revealed; for only the unsigned halves of the reports are submitted, and in the examination the pupil is screened from the view of the examiners. The examination is naturally and properly based upon the work reported on the card forms. The judgment of the examiners

ers is filed in writing, and is typed and transmitted to the teacher of music by the clerk in the office of the high-school principal. The prestige of the private teacher is therefore not impaired, in case minor criticisms are made—as they frequently are—and yet he is given every opportunity to improve the standard of his work. In case dishonest and quite unworthy teaching is disclosed the pupil, rather than the teacher, is promptly warned, and advised that he is not being prepared to meet the requirements of the course. The plan in experience has proven to be sound. The standard of work is efficiently guarded, good teachers are encouraged, poor teachers are disqualified, and the student is stimulated to honest and faithful effort.

Turning again to the table, it is seen that musical appreciation is as yet inoperative. The equipment for this should be promptly purchased, and the work would then probably be begun. Again, chorus singing is required of all, according to the official course of study, but is seen to be not yet systematically practiced. In the one school which reports a form of practice for this feature, the pupils are divided into two large groups which sing in assembly, usually in the school yard. Such community, or assembly singing, in large groups, incidentally attains a valuable social aim as well as the avowedly musical one, and is the proper field for required chorus singing. More technical and advanced voice training and chorus practice should still be open to select numbers in elective or selective glee clubs and special-chorus groups. Doubtless a program will soon be worked out for each school which will insure one or two periods of chorus practice per week to all students in the school, divided into groups numbering, preferably, from 200 to 500 students each. At present even the one school that has begun the practice is as yet quite unsupplied with any music—a fact that emphasizes the formative stage of all the work.

But against shortcomings which are inseparable from the formative stage of any system must be placed several exceptionally favorable considerations. One of these is the admirable spirit toward all the music work manifested alike by pupils, teachers, principals, and higher administrative officers. Everywhere was found a cordial attitude toward music, belief in its value, willingness to cooperate in its behalf and, among high-school principals and high-school teachers of other subjects than music, a quite extraordinary degree of musical knowledge and endowment. The musicianship of the superintendent of schools has already been mentioned; and one of his associates has been perhaps the first and foremost worker toward securing, for the State of California, the adoption of music into the list of required branches for all the public schools in the State.

Another exceptionally favorable condition is found in the policy of the University of California toward high-school credits in music. Great discouragement is constantly put upon the study of music in high schools by the fact that colleges and universities which high-school students hope to enter will not accept as entrance credits high-school credits in music. This policy sometimes reaches an absurdly inconsistent point, as when a State requires music to be taught in its public schools and then, in its State university, refuses to accept, for entrance, credits in music gained in its public schools. But the State of California, in its university, is quite beyond criticism of the kind. A total maximum of nine credits which may be gained in a high-school group of elective subjects is accepted by the university. The group embraces music, manual arts, household economy, etc. The distribution of the nine credits among these subjects is not prescribed; consequently the credits may all be made in any one of the subjects, as music. The branches of music so rated for credit are: (1) Sight-singing and dictation, symbols and terminology of musical notation; (2) elements of composition, harmony and structure; (3) instrumental or vocal technic; (4) history of music. Any teacher who has seen hundreds of high-school students turn aside from music, which they desired, to take other and undesired subjects because these others alone were "college preparatory," will realize fully the exceptional nature of the encouragement given to high school music students in San Francisco by this ruling on the part of the State university. The bearing of these regulations upon the applied music course in the high schools is especially commendable.

A condition peculiarly favorable to the work of the musical appreciation classes in San Francisco is the presence there of not one, but two symphony orchestras, and the activities in the city, traditional and present, in the realm of opera. Not only do the orchestras exist, but, as an additional bit of good fortune, they seem to have acquired an indigenous character, to have become part and parcel of the democratic community spirit that exists in the city, and so to have acquired an intimate and friendly attitude and footing. During the last season an arrangement was made for elementary-school pupils to attend, without paying any admission fee, final rehearsals of the San Francisco Peoples' Orchestral Association. The result was unsatisfactory. Attendance was not required, and elementary-school students, reared on short songs and not yet responsive to the range of moods or the structural sublimities of great music, evinced a preference for staying away. This need not have been disappointing, but it was. In the brief for high-school music, some pages back, the argument for just such necessity for

musical education that should go beyond the elementary school period was presented. But with numbers of students in the high schools in elective classes in musical appreciation, a totally different result might confidently be expected.

Concert or rehearsal attendance, under some special arrangement with the orchestra board that would not make it burdensome upon the students in a monetary way, should prove most attractive, and, indeed, should properly be made an integral part of the class work; and this recent experiment is cited here as giving evidence of the cordial cooperation that the school authorities could unquestionably expect from the orchestra boards. Operatic performances could doubtless be attended under some similar cooperative plan.

VII. MUSIC IN THE PUBLIC-SCHOOL SOCIAL CENTERS OF SAN FRANCISCO.

Through social centers, evening schools, and other forms of extension work a public-school system may make "a contribution to the culture of the citizens over school age," as Supt. Condón, of Cincinnati, felicitously phrases it, that is of vast importance. Here again there is direct and indirect good accomplished. The direct good, of course, is the effect upon the members of the social-center group; the indirect good the effect upon the public-school system resulting from the more intimate knowledge gained of that system by the social-center members, their sense of benefits received, and their recognition of their proprietary responsibilities in relation to this most important institution. All of this improvement in their attitude is promptly reflected in the attitude of the children and youths in the day schools; for they are the children of the members of the social-center groups or of neighbors of the members, and notions and attitudes of these elders are quickly diffused in these days.

Music is peculiarly appropriate in social-center work. It is pre-eminently, especially in its choral and orchestral phases, a friendly, a social, a cooperative art. No surer means of bringing about social solidarity upon a high plane can be imagined than to join the people of a neighborhood together in song. Nor need the social good be the only one attained. Musical intelligence, knowledge, and appreciation can be promoted to any extent, the only limitations being the degree of response from the citizens and the liberality of the taxpayer. Of these the second may be disregarded. If the response is sufficiently large and enthusiastic, funds for maintenance can always be secured.

Response is often made small by the inability of the better class of citizens to understand that a public-school system can possibly hold any benefits for them. The public schools are not regarded as institutions of higher learning, and when citizens gather in them

the juvenile aspect of the rooms and their equipment is likely to imply to the adult that the course is designed to be more elementary than he wishes it. Only a vigorous propaganda, carried on by persons of discernment and high intelligence, will finally remold this now fixed concept and bring recognition of the fact that the public school is to-day prepared, or is preparing, to minister to the most advanced and diverse educational interests of its most advanced citizens; that it does not belong to the unenlightened classes exclusively, but is of use to all; and that "social-center" work carries no implication necessarily of uplift of the submerged classes, but provides equally an opportunity for the play of the most advanced interests held by any higher class. Nor can the board of education carry on this propaganda. They can open the schoolhouse doors and make provision according to the demands put upon them, but the interest, the demand, the promotive energy must come from the citizens themselves.

In the "Rules for the Establishment and Operation of Neighborhood Centers in the Public-School Buildings of San Francisco" provision is made for music centers. What will be done in these centers will be determined by just the influences and factors described in the preceding paragraph.

Exceptional agencies appear to be at hand in San Francisco for promoting a most desirable sort of work in these music centers. These agencies are clubs dedicated to city welfare work, some of which have already been active in encouraging the organization of choruses that it was proposed should meet in school buildings or under some sort of public control. If these organizations will take new heart from the opportunity now provided, will encourage the organizations of choruses and orchestras, and will enlist the interest and cooperation of conductors and teachers, a good work should soon be well begun. It will succeed best ultimately if this criterion is established: Try to promote the organization of groups in which you yourself as member would find pleasure and benefit. It is quite true that groups of all grades of ability must be formed, but the formation of each grade will be properly effected only by those whose personal interest is engaged by the work of that grade, and at present only the higher grade knows what its interests are, is enlightened as to its opportunity, and is informed as to possible steps of procedure. Therefore it must lead the way; it can not proceed so well by precept as by example. We have little joy or enthusiasm in urging others to activities that seem quite unattractive to us. We are likely to appear patronizing, however sincere and altruistic our feeling, and our words lack the final ring of earnest conviction.

What *may* be done in the music centers is this:

In most neighborhoods in which a neighborhood center is established there are probably hundreds of men and women who are interested in music, know something of its notation, and who have either had some experience in singing or playing or would welcome such experience. Some sing, or have sung, in choirs and choruses. Many engaged in choirs would enjoy an evening spent in singing secular choruses; many who have resigned from choirs would gladly rehearse one evening a-week when they would not feel that they could give time on Sundays to the more exacting demands of choir work; ex-members of choral societies have found that the trip down town to rehearsals was a tax which they could ill afford to pay. All these and many more are likely to be interested in a neighborhood chorus, especially if after organization those of equal ability were separately organized and different grades of work were projected.

Orchestras could be similarly formed; sight-singing classes should be numerous; lecture recitals could be given; musical study clubs could be organized; and appreciation classes formed. Teachers in the elementary schools could meet for instruction in music that would be of especial benefit to them, and harmony classes, in some instances, might be organized.

Most of these activities have probably been tried at some time, for a shorter or longer period, in San Francisco. The report of groups and attendance in social centers for 1915-16 records singing in one school by a group of 20 girls one evening each week. Information is also at hand of lectures in music that were given in public-school buildings in the evenings during one season and were well attended. Also, in connection with the evening schools, an orchestra of 18 members rehearsed twice a week in one school under the direction of the principal. It would seem that the agencies are now at hand for making these sporadic activities regular and systematic and vastly increasing their reach. The immediate effort should be to establish a music center, devoted to some branch of musical practice, in every neighborhood center opened.

The plan adopted in Pittsburgh holds many values and may well be cited here. In the Pittsburgh public-school system a department of special schools and extension work is charged with the direction of all evening schools and social centers as well as some special type schools. Social center groups under this plan are groups which are self-directing and self-supporting, though under the supervision of the department. Rooms, light, heat, and janitor service, and some contribution in the form of lectures are the total provision by the board of education.

Evening school groups, on the other hand, are furnished all the foregoing and, in addition, all textbooks and supplies needed and

instructors. A building is opened for social center activities upon the request of 100 or more citizens. An evening school is opened upon the request of 200 or more citizens. Pupils in the day schools are not eligible except for branches not taught in the day schools, and persons under 14 years of age are not eligible.

Upon opening a school the various subjects which may be elected are named and those present then enroll for the subject that interests them most. Twenty or more constitute a class, for which instruction and all equipment will be provided. For chorus 30 or more must enroll if an accompanist, in addition to the conductor, is to be provided, for the accompanist is classified as assistant instructor, and an assistant instructor is not provided for a class of fewer than 30 members. Practically all of the Pittsburgh groups are choruses, and all are under evening school rather than social center classification. The director of music consequently has supervision of the work, selects the conductors, authorizes the purchase of all music and supplies, and can aid in the maintenance of certain standards of work. The principal of the evening school aids in recruiting and maintaining the chorus membership, and in securing for the group pleasant accommodations and conditions.

The best plan for recruiting chorus membership under this system has been found to be the following: From a comparatively small number of persons vitally interested in the organization of a chorus in their neighborhood the principal obtains a mailing list of acquaintances of theirs who are likely to become members. To those on the list announcements of meetings and invitations to membership are sent. General announcements, in comparison with this plan, brought little result, and personal invitation by members of the chorus could not be relied upon. In San Francisco there is no provision for such action on the part of the school officers and the organizations referred to above that must conduct most of the promotive work could not do better than to take over this feature of announcement and invitation by mail. Again, in Pittsburgh all music is bought by the board of education and is returned at the end of each season. There is now a large library of music, and this is circulated on requisition from the chorus conductors among the groups. In San Francisco, where music is not provided by the school system, the cost of music to members might prove deterrent to many persons who might otherwise wish to join; or, if they did purchase music, the work might be seriously hampered by the constant effort at economy. Therefore, if any library of music is available that would supply the chorus even in small part, or if outside funds could be raised to provide such a library, the results from such contribution would amply repay the donors.

VIII. ORGANIZATION AND ADMINISTRATION OF THE DEPARTMENT OF MUSIC.

The foregoing sections have been largely devoted to a review of courses of study in music and methods and practices of teaching it in San Francisco and in general. At times features of practice found in San Francisco were held to be open to criticism, and such criticism was accordingly made. In many such cases, however, the fault was ascribed to unfortunate features of organization and administrative operation. It is to these features that we now turn.

The most astounding aspect of the work in music that was met with in the survey was the dearth of music textbooks and songbooks in the elementary schools. In no single room visited was there a book for each individual student. If there were enough copies of the one book uniformly assigned to a grade to supply the class by seating some of the children in pairs, the situation was deemed to be normal and as satisfactory as could be hoped for. The books used are, at best, greatly lacking in good song material, and this, added to the shortage in the supply, has naturally led to an unheard of amount of mimeographing of songs, placing songs on the blackboard, and teaching songs by rote.

All these methods lead inevitably to the inaccuracy, improvisation, dependence upon memory, neglect of part singing, and finally the impairment of technical power described in an earlier chapter. The loss in morale, too, that results from treating a subject so slightly, is a serious one. Only the natural love of music common to the people of San Francisco and a professional fidelity among teachers and supervisors that could not normally be expected have saved the situation from utter impotence. A further loss is that of the time of the music supervisors. That they should be put to arranging and copying songs, even with such assistance as has been granted, when strong constructive field work from them would yield so much greater value, is a serious practical blunder.

The cause for this miserly provision of books was difficult to ascertain. The State law is decidedly weak on this subject, for it requires music to be taught provided that study "may be oral" and no textbook "shall be required." Lacking a State requirement, action devolves upon local authorities. The local authorities unquestionably have power to purchase and put into use such music books as they may deem desirable, but the apportionment of funds by the San Francisco board of supervisors determines the total amount of expenditure for school purposes and consequently the proportion of expense for music books. It is hardly probable that San Francisco has not enough money to provide her school children with what practically every other city in the country provides, but the responsibility for such expenditure has not yet been definitely

accepted by any official authorized to make it. This condition should be promptly remedied.

The elementary schools of San Francisco should be promptly provided with music books as follows:

1. A basic text, rich in song material, one book for each pupil in second to eighth grades, inclusive.
2. A desk copy of each of at least two rote song books for each teacher of first or second grade classes.
3. A set (40 to 50 copies) in each elementary school maintaining grades hereinafter mentioned of a book for supplementary singing for use in third and fourth grades.
4. A provision identical with that of item 3, except that the books should be suitable for use in fifth and sixth grades.
5. A similar provision of books suitable for use in seventh and eighth grades.

Items 1 and 5 of the foregoing are the most urgent. No progress need be looked for until they are favorably acted upon.

In addition to the books so recommended, a budget item of some few hundred dollars should be allowed annually for the purchase of octave sheet music for use in connection with special school functions, or public programs, and for the purchase of orchestra music for the elementary school orchestras.

A recent rule of the board of education prohibits choruses of school children from participation in public programs. Such participation must, it is true, be guarded against abuse and an excess of demands that would disorganize the scholastic routine and impose a tax upon the strength of children and teachers. To prohibit such participation absolutely, however, is to fall into opposite errors. It is impossible to rise, in the insulated confines of the school room, to so keen a sense of defects in technique or so sensitive a perception of artistic effects as arises quite naturally in the more highly-charged atmosphere of a public performance. Discipline and self-control are also developed by the routine of public performance. On such occasions, too, the child comes in contact with the purposes and modes of action of the world of adults, and, if the practice is properly guarded, with meetings of some importance and civic significance. He may comprehend little of the meaning of such an occasion at the time, but it will be rich with meaning in the future—certainly richer than though he had stayed away. The school, too, is brought to the doors of the people by such participation, and a desirable intimacy between citizens and school system is fostered. All that is necessary in order to conserve these values and avoid onerous impositions is a limitation of participation to affairs of general public interest, or such as are promotive of the general public

welfare, in distinction to occasions that are in the interests of some separate sect, church, society, club, or group.

Instruction in music is conducted in the elementary schools of San Francisco by a corps of teachers organized as follows:

There is a head supervisor and one assistant supervisor, who between them supervise the field at large. In separate schools there are next some 55 special teachers of music, each teaching music to all or to a number of the classes in her one school. Some 35 of these special teachers have passed special examinations in music, and in recognition of this addition to their qualifications as regular grade teachers, and of the semispecial nature of their work, they are paid \$5 per month in excess of the salary that they would receive as regular teachers. The remaining 20 of the 55 special teachers perform the same sort of work as the 35, but because they have not taken the special music examinations they receive no increase in salary. Next in order is a very large number of semispecial teachers, each teaching the music in some two or more rooms of her school. The remaining rooms in the system are taught by the regular grade teachers in charge.

The head supervisor visits every school once each year. The assistant supervisor has no regular schedule, but follows a program of visits dictated by the needs of the situation and directed by the head supervisor. Four times each year the group of special teachers of music meets with the head supervisor for instruction and consultation. All newly appointed grade teachers are also called in to a meeting with the head supervisor at the beginning of each fall term to receive instruction in the course. This same group of newly appointed teachers is subsequently divided into two groups, the one consisting of teachers in grades one to four, the other of teachers in grades five to eight, and each of these subgroups meets with the head supervisor four times per year. All the teachers of each grade in turn are invited to a meeting each fall with the head supervisor, and a similar meeting by grades in February is mandatory. Further, any teacher may, if it is judged advisable, be summoned to a meeting with the head supervisor at any time, and the principals of the various schools advise the head supervisor as to what teachers need the additional instruction of these meetings. A series of five or six lectures on general questions of music pedagogy is given annually by the head supervisor, and to these lectures all teachers are invited. Lastly, teachers may obtain a meeting at any time with the head supervisor or assistant supervisor by making such request of the head supervisor.

So far as meetings are concerned this plan is admirable. The meetings are sufficient in number and are excellently devised in point of classification of the members of the teaching staff. But instruction in meetings, like all normal instruction, can never fill the place

of direct supervision in the schoolroom. More supervisors of music are needed in San Francisco. The plan of having special teachers to do this departmental work has value and has proven, under the conditions, to have saving power; but an objection to the plan is that it decentralizes administrative control and makes it indirect. If it were made complete by the appointment in every elementary school in San Francisco of a special teacher, to whom all the teaching in music would be assigned and who would be directly responsible to the head supervisor, the situation would be improved. The difficulty of unifying and standardizing such work by means of infrequent visits from two supervisors would still be great, but much more complete centralization of direction could be obtained from meetings attended by this select corps than from meetings of the larger bodies of teachers, such as are now held. It would be still better, however, to increase the supervisory corps. There should be a number of supervisors appointed sufficient to provide for a supervisory visit to each and every elementary schoolroom in the city at least once each month, upon an average estimate of not more than 12 rooms per day. This is not in excess of the provision made in most large cities which undertake to do anything approaching successful work in music. The question of continuing special teachers in the separate schools to do such departmental work as is now done would remain open, to be settled without reference to the number of supervisors.

The corps of high-school teachers of music is reasonably large in proportion to the present stage of development of the work, but it is not large enough to promote in full measure all possible further development. Experience has proven elsewhere, and will doubtless very soon prove in San Francisco, that the musical possibilities in a high school are never fully drawn out until a teacher of music is assigned on full time to each school. There are now three teachers engaged for high-school work, and the three teach in five high schools. The feature of itinerancy limits the number of students in music to those whose daily programs do not conflict with it at the hours when it is offered. The teacher of music is not on the ground to hold conferences with students and advise them as to hours and courses suited to their needs and capacities. Occasions arise from day to day that offer opportunity for the cooperation of the music department were its assistance available. Of such nature are assemblies for special lectures, exercises for the observance of holidays or in commemoration of important events, meetings for the promotion of athletics, programs by the English department, and many others. The high-school orchestra and chorus can give valuable assistance on these occasions if they are not fugitive and almost unknown organizations in the school. The musical appreciation classes can give

interesting programs in chapel; the harmony students, in cooperation with the English classes, can write class songs and school songs, and select, arrange, or compose incidental music for plays and other school programs. In cooperating in such ways the department of music soon comes to be indispensable in the school and attracts the notice of all students. The result is that the measure of musical interest and capability that is common to all youth is awakened and given its proper chance for development.

For two reasons no comment was made in the preceding section upon present methods and practice in the various branches of music in the high schools. The forms of practice were in a formative stage, and the features of practice that were most open to question either could be explained as due to this newness or else owed their origin to administrative shortcomings that should be discussed in this present chapter. For instance, in instruction in harmony the methods of the teachers differed greatly, and classes that began the study at the same time were in widely different stages of advancement after a few weeks had passed. The difference was qualitative rather than quantitative, and resulted from the comparative emphasis put upon various features of study and individual musical development, such as melody writing, ear training, exhaustive work with a few trials or a smaller amount of work with a larger array of chords, and countless other phases of work. In part the diversity must be explained as due to the diverse facilities for organization of the classes offered by the different types of schools; the inequalities in capability shown by the students, and resulting from the fact that all students, of whatever year in the high schools, were quite rightly admitted to the beginning classes in this first term of presentation of the subject; and the difference in the number of students in one class as compared with another. But over and above these causes there was yet diversity; and while this diversity, working cumulatively throughout the course, might yet lead to no serious difference in the general musical power developed in the students, it is yet open to this objection, that students under such conditions could not transfer from one high school to another in San Francisco and pick up the work in harmony where they left it. Standardization of the course is necessary. Conditions such as these will also obtain in musical appreciation when that course is fairly begun and similarly, to a small degree, in chorus and orchestra work, until the administrative system is better constituted.

The truth is that there is not a *department* of music in the San Francisco public schools. In the elementary schools there is a degree of organization and standardization that justifies the term for that division, but in the high schools there is not, and in the two divisions

combined, which should stand solid and symmetrical as one system, there is not. There is as yet no head teacher of music in the high schools, no plan for meetings of the teachers of music together, no one among them authorized to call such meetings, no plan of articulation and coordination with the work in the elementary schools, and no one authorized to formulate and put into operation such a plan. This lack of centralization of authority and dearth of cooperation infallibly leads to the diversity noted above; and it will, despite the most devoted and competent individual effort, lead to confusion and serious lack of efficiency. As there is no one officially placed in direct and authoritative control, division of authority follows. The confusion existing with regard to the status of the plan for crediting outside music has already been noted. Such confusion is inevitable when one teacher of music in high schools may be explicitly informed (as was the case) by one in authority over her, that the practice had been unsatisfactory and was therefore discontinued, while the other teachers were either not given any information or were informed to the contrary.

In personal conferences and in a joint conference attended by the supervisors of music in the elementary schools, the high-school teachers of music and the survey member whose field was the department of music, it developed that diverse and sometimes contradictory instructions were being followed that had been given to individuals of the corps by individuals in higher authority solely upon their individual initiative and without the substantiation of concerted and official action. These instructions were naturally accepted as authoritative and were obeyed with the result that the confusion described resulted.

In a well-organized system of public-school music there must be the closest articulation and coordination of the elementary, high school, and evening school divisions. The course of study in the elementary schools must be known to the teachers of music in the high schools; the course in the high schools must be thoroughly known to the supervisors in the elementary schools. The elementary course must lead, by gradual steps and without perceptible break, into the work of the high schools, which, in turn, must scan the foundation laid in the elementary schools and build solidly upon it. In time the product of these divisions will constitute the human material of the evening school and social-center groups, and the activities there must be such as are appropriate in the light of such genesis. Particularly between elementary schools and high schools must the articulation be close. In a well-fermed system the teachers and supervisors of eighth grade classes will classify the students as to their various musical capacities, will make record of their findings, and will transmit this record to the teachers of music in those high

schools to which the students are promoted. There will be a list of pupils who are especially interested in the study of singing or the study of some instrument, who are specializing to a marked degree in such study, and who should consequently enroll in the "outside" applied music courses. There will be a list of pupils who enjoy chorus singing thoroughly, but who are not specializing to any marked degree in music. The voices of these will be classified as to register and described briefly, and any of unusual promise will be especially mentioned. In this number—the largest that will be promoted—will be some pupils whose musical endowment is exceptional but who are undeveloped in point of musical knowledge and power. These will be named as deserving of special attention and enrollment later, perhaps, in the harmony or appreciation classes. Those who should enter the high-school orchestras will be similarly listed, and specification of the instrument played and of each pupil's grade of ability will be made. Pupils who desire to attain general musical intelligence and culture as a phase of education indispensable to the well-educated man or woman will be listed for the appreciation classes. Those who have a gift for composition, a vocational aim in music, or merely an acute mind that interests itself readily in technical and structural phases of music, will be directed into the course in harmony, counterpoint, and orchestration. Any body of high school students will exhibit all phases of musical interest. Any body of high-school students likewise needs guidance, especially at the period of entrance into the high school. But it is at just this point that the students are unknown to the high-school teacher of music who must accordingly be guided by means of the reports handed on by the eighth-grade teachers and supervisors.

Systematization and coordination of work in the three divisions of the public-school system can take place only through centralization of supervision and authority. There should be a directing and controlling force that should have for its purview the whole field of public instruction in music, from the kindergarten to the last step in high schools, evening schools, and social centers, and which should, beyond this, stand in favorable and dignified relation to the musicians in the city, in order to link up public instruction in music with the advanced musical interests of the community, interpreting each to the other and welding the whole into a community of thought and interest. Such a directing force must be informed as to modern methods, material, and practice in teaching music in each and every grade from the kindergarten to the eighth grade, inclusive: in teaching harmony and other theory classes, appreciation classes, choruses, orchestras, and "applied-music" groups in high schools; and in conducting choral, orchestral, and other classes in evening schools. Knowledge of pedagogy, voice, orchestra, and musical

theory are the requisites, together with the most important one of all, intimate and practical knowledge of music in the schoolroom. The simplest and most efficacious way of providing this directing force is to appoint a director of music for the public schools of San Francisco, and such a director, if appointed, should then be given ample liberty and ample support, be freed from interference, except such as might come in the form of necessary official control, and be held responsible for results because of the power and freedom bestowed.

IX. GENERAL VIEW.

Consideration of San Francisco as a setting for a system of public instruction in music brings forth some interesting reflections. Here is a city that supports two symphony orchestras; that has a history of operatic performances at popular prices unequalled probably by any other city in the United States; and that has a club dedicated to the development of artistic activities, which especially fosters the creative impulse in respect to all forms of artistic production, and which annually gives a dramatic and musical production of the highest artistic merit that is the original work of its members.

The project for establishing in San Francisco a California State School of Opera is another evidence of the esthetic interests that spring from the very air and soil in California. A brochure by Mr. B. P. Miller has the following to say on the subject:

If California is ever to have opera as Europe has it, it must be homemade. So long as we have to import companies from far away, opera can be no more than a brief and occasional luxury.

In Latin countries, in Germany, and Australia, music is not merely made for the people; it is made by the people. Chorus and instrumentalists, even the soloists and directors, belong for the most part to the town or Province for which they make music.

We in California are ultramontane; we are cut off from the East by the mountains; we are remote from the great centers of culture. We must work out our own musical salvation. The establishment in San Francisco of a school of opera, adequate in scope, of the highest rank in its ideals and teachers, and generous in its aims and methods is a capital factor in our esthetic growth.

The city, then, possibly by virtue of the ancestry of the people, its history, its climate, and its geographical position, has a life that moves largely on planes of imagination, sensibility, and idealistic endeavor—which is to say, on artistic planes. In this city is a public-school system the teaching staff of which, as may be expected, catches up and emphasizes the salient characteristics of the city at large. The members of the music corps are devoted to the cause of music, enthusiastic in their faith in its value as a subject for study in public schools, are lavish in their expenditure of time and energy in its behalf, and are trained and capable in their duties. The methods pursued, while

open in such details as have been discussed to some criticism, are not by any means so wrong as to cause basic shortcomings or general failure. Outside of the music group we have found that from elementary school teacher to the superintendent there is displayed a degree of musical endowment, knowledge, and interest that is quite unusual in a corps of teachers. We have seen this interest and ability manifest its soundness and fineness by making many unofficial contributions to the encouragement and furtherance of various phases of musical instruction in the schools. We have seen that the State university gives unusual encouragement to the study. We have found many of what may be termed community welfare organizations interested in music and ready to assist in any developing movement. In fact, there was no dissenting voice, no question as to the value of the subject or the validity of its claims to attention, either from persons within the school system or without.

We must add to these favorable conditions one or two more. The preparation for teaching music which the average normal school in the United States gives to its students is so meager as to be almost worthless. No other problem connected with the advancement of instruction in music in our public schools is quite so disheartening. In San Francisco, however, every reasonable endeavor is made by the State normal school to prepare its graduates for successful teaching in music as in other branches. In addition, the head supervisor of music in the elementary schools of San Francisco receives a report from the normal school of the musical ability of every student from that institution who enters the San Francisco school system as a teacher; and the board of education of San Francisco is firm in maintaining music in the list of subjects which an applicant must have studied to be eligible for appointment.

A further advance for the entire State was foreshadowed, during the period of the musical survey in San Francisco, by the action of the California superintendents' convention, in session at Lake Tahoe. In the meetings of that organization a resolution was introduced and unanimously adopted, the text of which is as follows:

Resolved: That the normal schools and the universities of the State be urged to make better provision for training elementary and high school teachers of music.

Under date of November 16, the executive secretary of the California Teachers' Association writes in comment upon this motion: "Since the passage of this resolution there have been similar resolutions passed by various county institutes and other educational organizations in the State. It is evidently the intent to improve this matter of music at once."

In the light of these conditions one would be justified in turning to the department of music in the public-school system with only

the most glowing expectations. Every element, it would seem, that is necessary to the making of an exceptional department of music is present. Why, then, with the elements present, is the ideal department not realized?

The one comprehensive answer is that these many members are not yet one body. In a word, the forces and capabilities that are in the school system and in the city outside of the school system have not yet been consolidated and organized. In consequence we find vagueness of general aim along with much clarity of individual aim, a measure of weakness in total accomplishment along with much efficiency in individual and partial accomplishment, a feeling of being baffled in progress along with an ardent desire to make progress. Organization is needed--organization of the school department that shall then be supported by the well-informed and systematic interest of the community. The city must seek through its department of music in the public schools to develop a civic consciousness musically.

X. SUMMARY OF COMMENTS AND RECOMMENDATIONS.

1. The system of music in the elementary schools of San Francisco implies greater regard for music as vocal expression than for music as aural impression. Most of the undesirable features of practice that were observed would be eliminated by the recasting of thought which would come from acceptance of the principle that music is essentially something to receive through the ear rather than to express through the voice.

2. The vocal practice of the children is in the main most admirable. The quality of such songs as are provided is excellent. The highest musical standards are maintained in this provision.

3. The segregation of boys from girls for part-singing, and the assignment of boys to a low-voice part is a mistake. It is the only serious mistake that is entirely within the control of the music department.

4. The treatment of changing voices in upper grades is bad. The meager quantity and unavoidably inappropriate quality of the music provided for these grades is largely the cause of this failure.

5. In general, part-singing is comparatively undeveloped or poorly treated. Dearth of material and a desire to secure great spontaneity in singing are equally the causes, together with the segregation of boys from girls mentioned in a preceding paragraph.

6. Monotones are very competently instructed and cured.

7. Sight-singing is only fair. The material provided exploits a method that is incongruous with the principles and aims of the department (which are better) and the whole system is therefore divided against itself.

8. Theoretical knowledge is quite thorough and general.

9. The spirit in the singing, both as to its musical and social aspects, and on the part of both pupils and teachers, is beautiful.

10. There is wise recognition of the worth of the musical inheritance that foreign children possess, and this inheritance is made to contribute to their development as American citizens.

11. The development of patriotism, National and State, which is effected by the singing of patriotic songs, is an incidental feature of value, especially in a cosmopolitan city like San Francisco.

12. Broadly speaking, the system of practice in the elementary schools tends to the attainment of general social and humanistic ends rather than to the development of specific musical culture and appreciation.

13. The time given to music in the elementary schools is insufficient. San Francisco gives 60 minutes per week. This is below the average of practice in the United States. A minimum of 75 minutes per week at least should be given.

14. The greatest shortcomings arise from conditions that lie partially or wholly outside of the sphere of departmental authority:

(a) Orchestral playing receives academic approbation but no material and systematic official support.

(b) The children in the elementary schools are on a starvation diet with regard to the quantity of musical material provided them: a large provision of musical material for the elementary schools is a plain and urgent duty.

(c) The corps of supervisors in the elementary schools is insufficient in numbers. The number of supervisors should be increased to a point that would insure the visit of a supervisor once a month to every elementary schoolroom in the city.

(d) There is division of authority in the overhead control of the department of music. Individual members of the board of education or of the superintendent's staff should not issue instructions or seek to modify practices in the department of music unless action to such effect has been taken in a regular meeting and in an official manner. Instructions in such case should be issued from headquarters, as an officially authorized proceeding. The board of education, to protect itself and the work of the department, should itself issue a notice that only such deliberate official action, regularly taken and officially announced, shall be recognized as authoritative.

15. The adoption of the new course in music for the high schools is a most fortunate step. The course is probably too ambitious, but will rapidly find its level in accordance with the teachings of experience.

16. Much equipment for the musical appreciation classes should be provided.

17. Close watch should be kept upon the development of the work in high schools that now receive only part of the time of a teacher, and the probable early need for two or more teachers should be promptly anticipated.

18. The teachers of music in the high schools are not organized as a corps, and methods are likely to become unfortunately divergent in consequence. The high-school teachers should be organized within their own group and should then be organized in relation to the group of supervisors in the elementary schools. At present the two divisions are out of touch with each other.

19. The same confusion as to what are official and what unofficial instructions that disturbs elementary school work in music disturbs, in like manner, the high school work. The causes and the remedy in both cases are the same.

20. Orchestral playing has had an inspiring history in the San Francisco high schools, and given new adequate encouragement and support, it should soon reach quite extraordinary attainments.

21. The crediting of the study of music under outside teachers is favorably conditioned by both the interest in such study in San Francisco, and by the attitude of the University of California toward the credits so gained. It is extremely unfortunate that confusion as to the status of the practice should have arisen. Definite official announcement of the status of the practice should be made, and steps be taken to encourage what is likely to be, in San Francisco, a notable development of a valuable phase of school music.

22. Music should have greater place in the evening schools, especially in the social center work. Interest in music as a social center activity must be developed in the community, outside of the school system. The school system should be provided with funds sufficient to enable it to provide instructors and music for social center groups when these are of reasonably large membership.

23. Every worthy activity in this and all other divisions of the system that arises spontaneously and moves forward without official support (as was the case with an orchestra in an evening school during the past year) should be given official support. The school system should not only do this as a duty but should guard it as a prerogative; otherwise ill-advised or illy-guided activities, that may do harm rather than good and that may bring discredit upon the school system; may readily arise and gain a foothold.

24. To protect the system thus, and to guide and guard the activities, it is necessary that the department have a responsible head. The appointment of a director of music whose recommendations would be followed would help in large measure to develop the sort of music system that San Francisco deserves and might easily have. The appointment of such a director and a corps of assistants is recommended elsewhere (see p. 109).

Chapter XI.

INSTRUCTION IN ART.

Few communities have for the development of art the background afforded by California's romantic history, natural beauty, and creative spirit.

Indian chiefs, Spanish dons, Catholic missionaries, gold-hunting pioneers, merchant adventurers, trappers, lumberers, farmers, poets, workers and dreamers of every sort have combined to create for California a wealth of legend, story, and song of extraordinary character. Beauty is everywhere. From the serenity of green pastures to the splendor of glittering deserts; from the loveliness of brookside flower beds to the solemnity of primeval forests; from the gentle glory of wooded hills to the thrilling grandeur of snow-clad mountains—all the forms and moods of beauty are displayed with an oriental prodigality.

The creative in art has already asserted itself in California. The jewelry and silverware of Los Angeles, the tiles of Pasadena, the paintings of Santa Barbara, the bungalows and cottages of Berkeley and Oakland, the inns of San Bernardino and Monterey, the college buildings of Palo Alto, the Exposition buildings of San Diego and San Francisco—these are but the first fine fruits of California life, a life that is destined to make an expression of itself in terms of such beauty that a radiance as of Greece and Italy will appear some day beyond the mountains of the West.

In San Francisco the physical features of the entire State are recapitulated in sample. The bay with its picturesque islands and mountainous shores, Tamalpais, the high-piled city, the Golden Gate—these are some of the things that make possible an influence which may be directed through education to foster, to promote, and to bring to abundant fruition in the arts the whole life of California.

The art-educational ideal for the city of San Francisco that has gradually formed itself during this survey may be set forth in a few words:

- (1) Tasteful schoolrooms throughout the city, equipped with instructive and stimulating material.

(2) Orderly courses of study, so interrelated with one another and to the daily life of this favored region that continuous progress is possible to all pupils, without loss of time or lapse of skill, from the lower grades throughout.

(3) An adequate teaching force, organized for efficiency in securing results.

(4) Free tools and supplies for all children.

(5) Provisions for discovering and training talent and for placing it where it may be of the greatest possible service to all.

Just how closely the art-educational conditions in the city approximate this ideal it is the purpose of the following report to indicate.¹

I. SCHOOLROOMS AND EQUIPMENT.

It is now widely believed that the environment of children is a potent factor in establishing ideals. Therefore, a first-class schoolhouse is attractively designed; its yard is tastefully laid out; the schoolrooms exhibit a color scheme appropriate to the amount and quality of light received; and works of art, suitable to the grade of the room, are placed on the walls to produce the best possible effect. Such an environment for school children was found to be rare in San Francisco. The school grounds are seldom inviting. The walls of the rooms, if tinted at all, are usually a rather strong cream color. The shades are almost uniformly a strong crude green. The rooms contain no works of art furnished by the school board, and a rule of the board prohibiting the collection of money from the children makes it practically impossible for them to assist in making their schoolrooms attractive if they would. In some cases the principal, with the assistance of a mother's club or some other local organization, has been able to secure a few pictures, not always well framed. As a rule these are to be found in the office of the principal, where the pupils seldom if ever see them. Here and there an ambitious teacher has acquired some small pictures of her own. These she takes with her when, as frequently happens, she is transferred to another room. Some schoolrooms have window gardens, usually much neglected. Some teachers have flowers upon their desks, but seldom well grouped, or used to cultivate taste or skill in flower arrangement.

The schoolrooms of the city are almost a desert, so far as reference material is concerned. They have practically no books on drawing, color, design, or the history of art and craft; no charts nor examples of fine work, not even such as drawing books furnish.

¹ This report is based upon data gathered through visits to 158 schoolrooms in 27 school buildings, the State normal school, two museums, and the Institute of Art, and from 33 conferences, each with two or more people, school officials, supervisors, principals, teachers, members of the chamber of commerce, and other citizens of San Francisco.

The grade teachers hardly ever draw for the children, and the special teachers and supervisors seldom if ever make, in the presence of the children, finished drawings to inspire good work. The supervisors frequently bring charts and other reference material with them when giving a lesson, but such things are not allowed to remain.

Some rooms have a few vases and other objects, purchased by the teacher, or given by friends, for use in object drawing, but these are seldom utilized as decorative furnishings for the room. The school board supplies practically nothing in the way of illustrative material for art instruction.

Even when the work of pupils in previous years is displayed, it is not mounted or hung with the purpose of teaching tasteful mounting and hanging. The many opportunities to cultivate taste through the use of the things of the schoolroom seem to be habitually overlooked or neglected.

The reference material offered so lavishly by nature—flowers of unique beauty, trees of rare distinction (like the eucalyptus), birds of brilliant plumage, insects of iridescent color—are not made use of so generally as they ought to be.

The city is rich in pictures, textiles, and other objects of art from the Orient, and from Europe, and the amount of such valuable reference material is constantly increasing. Much of it is crowded into the Golden Gate Museum where few children ever see it, while the schools are practically without reference material for use in art instruction.

RECOMMENDATIONS.

(1) The school grounds should be improved. An expert interior decorator should be employed to tint properly the walls of existing schoolrooms, in oil color (that they may be kept clean), flat finish, of a hue and value of color adapted to the amount of light the room receives. The windows should be fitted with adjustable window shades of approved color. In all new buildings the proper tinting of the walls should be provided for in the original contract. Window gardens, if installed, should be kept in good condition, through the cooperation of the children.

(2) In each building should be a constantly growing collection of work done by the children. This should include ultimately fine drawings, in outline and in color, of all the common plants in the immediate vicinity, of the principal kinds of local trees, insects, fish, birds, and animals, and of the best designs that have been drawn and worked out, all arranged for ready reference. Such a collection would acquaint children with their environment, would stimulate both pupil and teacher to fresh endeavor each year, and enable each school to compete with itself and thus to make solid progress. The

best work each year, under every topic, should be added to the school collection.

(3) The schoolrooms should be furnished with pictures appropriate to the grade of the room in the lower schools and to the subject of instruction in the high schools. Through the cooperation of the children, their parents, and their teachers, this can be done gradually, to the delight and benefit of all concerned. The school board should cooperate by framing the pictures, if not to the extent of sharing the initial cost.

(4) A school library should be started in every building. For purposes of art instruction it should contain reference books on color, drawing, design, and the history of art and craft, sets of standard drawing books, and current art educational publications.

(5) Each school building should have a collection of beautiful things. This should include shells, insects, mounted birds and animals, samples of wall papers, dress goods, textiles, embroideries, prints, posters, and beautiful objects of every kind. This collection, like that previously mentioned, would grow slowly but surely, through constant additions by the children themselves, through interested friends, through alumni associations, through local women's clubs and improvement societies, and through the cooperation of the school board.

(6) The astonishing amount of invaluable reference material now stored in the various museums of the city, especially the museum in Golden Gate Park, should be made available for use in the schools.

One hundred strong boxes, especially designed for the purpose, could easily be filled with nature specimens and works of art and handicraft of every sort, each box containing things in one class and circulated from school to school, with comparatively little expense. Such exhibits would not rob the museum, would be an inspiration to good work in the schools, would educate the children in many ways, open their eyes to the museum itself, and help to develop civic spirit. The experience of St. Louis and Chicago with circulating exhibits of this nature has proved their feasibility and value. The museum authorities have expressed themselves as willing to cooperate with the school board in this matter, and undoubtedly the cooperation of the custodians of collections could be secured.

II. COURSES OF STUDY.

There are in the city 12 unrelated units, so far as courses in art instruction are concerned, as follows:

1. The lowest-grade primary schools
2. The Jean Parker School.
3. The Crocker Intermediate School

4. The Hamilton Intermediate School.
5. The Horace Mann Intermediate School.
6. The elementary schools, Grades II to VIII.
7. The High School of Commerce.
8. The Girls' High School.
9. The Lowell High School.
10. The Mission High School.
11. The Polytechnic High School.
12. The evening schools.

A thirteenth unit should properly be included, namely, the Lick-Lux-Wilmerding group of endowed schools, because they are free to San Francisco pupils.

The courses of instruction in art for these schools seem to have been formulated by different groups of people without relation to each other. The supervisor of drawing, who should naturally have direction of the art work in all of them, was allowed to state what should be taught in the elementary schools, Grades I to VIII; but that course was revised by the school board, without consultation, and printed for distribution with this note: "All the work in drawing for the first grade is to be exclusively by the class teacher under the supervision of the principal." The course of the supervisor (or so much of it as remains after revision by the school board) is administered in Grades II to VIII, except in the Jean Parker School and in the three intermediate schools, each of which has an independent course of its own.

As this school board course stands, it does not furnish a sufficiently detailed outline to give definite constructive guidance month by month to the grade teacher; nor does it make sufficiently emphatic the relations that should be maintained between drawing and design and the daily life of the pupil both in school and out.

The course for the Jean Parker School seems rather fragmentary and disjointed, unrelated to the other work of the school, and to the daily life of the pupils.

The courses in the three intermediate schools, while new and somewhat tentative, have the merit of being individual and vital. They reflect a real relationship with other school topics, and with the school and community life of the children.

The published courses of the five high schools are so brief and so diverse that they deserve to be given in full for comparison. They read as follows:

High School of Commerce.

No instruction in drawing.

An "interlocking system" makes it possible for a student to obtain permission "to take in any school offering it, any subject (not a 'major') not given in the school in which he is registered, whenever, in the judgment of the principals of the two schools concerned, such permission is advisable."

First and second year free-hand and geometrical drawing are possible on this basis, during the third and fourth years in this school. No pupils in the Commercial High School were found availing themselves of this opportunity, nor is it probable that they will ever do so under present conditions:

Girls' High.¹

First year: Free-hand drawing; Clay modeling.

Second year: Free-hand drawing--Pen and ink, charcoal; Art metal work; Leather work.

Third year: Sketching; Theory and application of color; Applied arts, differentiated; Tiling.

Fourth year: History of art and artists.

Lorrell High.

First year: Free-hand drawing.

Second year: Free-hand drawing.

Third year: Geometric drawing (first year); Free-hand drawing (third year).

Fourth year: Geometric drawing (second year); History of art.

Mission High.²

First year: Drawing--Free-hand, geometric; Clay modeling (second half); Art metal work (second half).

Second year: Drawing--Free-hand, geometric, pen and ink, charcoal; Clay modeling and advanced clay modeling (half-year each); Art metal work; Wood carving; Leather work; Bookbinding.

Third year: Mechanical drawing; Architectural drawing; Civil engineer's drawing; Mining drawing; Marine drawing; Color and wash; Applied design, differentiated; Sketching; Tiling.

Fourth year: Mechanical design; Architectural design; Civil-engineer's design; Mining design; Marine design; Composition.

Polytechnic High.³

First year: Free-hand drawing; Clay modeling.

Second year: Free-hand drawing, differentiated; Geometric drawing, differentiated, pen and ink, charcoal; Advanced clay modeling; Art metal work; Wood carving; Leather work; Bookbinding.

Third year: Mechanical drawing; Architectural drawing; Civil-engineer's drawing; Mining drawing; Marine drawing; Applied design, differentiated; Sketching; Tiles or pottery; Advanced art metal work; Advanced wood-carving; Advanced leather work; Advanced bookbinding.

Fourth year: Mechanical design; Architectural design; Civil-engineer's design; Mining design; Marine design; Trades' art, differentiated; Composition; History of art and artists.

It will be seen that all these courses are very general. The real character of the course can not be determined from such outlines nor by questioning teachers. It may be fairly judged only by the work

¹The Girls', the Mission, and the Polytechnic offer "Home Building Plans and Environment (half-year), Interior decoration and Furnishing (half-year)," during the second year, under the "Home division" of the domestic-science courses.

of students. But little of such work was to be found. In fact, frequently under certain topics none whatever had been retained by the school, nor could it be discovered by inquiry.

The evening-school courses, determined largely by the immediate needs of the students, are far more definite and practical. The courses in art instruction in the endowed schools are thoroughly interrelated with the other courses in those schools, are orderly, vital and fruitful.

With the 13 diverse courses of these 13 distinct groups, each course so individual and in several cases so loosely formulated that it may become anything or nothing, according to the knowledge or ignorance of the unsupervised individual teacher, the steady progress of pupils in art instruction from grade to grade and through the high schools is simply impossible.

RECOMMENDATIONS.

7. An orderly and well-defined course of instruction should be formulated for all the schools of the city. This course should be at once rigid and flexible; rigid enough to insure sequence in knowledge and progress in skill every year, and flexible enough to admit of great variety in the application of principles and processes on the part of both teacher and pupil.

8. In view of the now well-known characteristics of the child mind, such a course will emphasize, during the first six years in school, the importance of putting the children into possession of the tools, the elements, and the fundamental processes of delineation.¹

They will learn to use the pencil, the crayon and the brush, the ruler, the compasses, the scissors, and the knife, with ever increasing skill. The occasions for such activity will arise daily out of the lessons in observation, language, number, and the other school topics. They will become familiar with all the common terms employed in describing the colors and form of things, and the arrangements of their elements. They will acquire good habits of thought in determining directions of lines, relative proportions, shapes of areas, hues of color, etc., and skill in expressing themselves graphically, in orderly fashion.

9. Recognizing that in general a response to esthetic relations and the development of appreciation is characteristic of the adolescent rather than of the child, an orderly course will lay increasing emphasis in the upper grammar grades and in the intermediate and

¹ "Never again will there be such susceptibility to drill and discipline, such plasticity to habituation, or such ready adjustment to new conditions. It is the age of external and mechanical training. Reading, writing, drawing, manual training, musical technique, foreign languages and their pronunciation, the manipulation of numbers and of geometrical elements, and many kinds of skill, have now their golden age; and if it passes unimproved all these can never be acquired later without a heavy handicap of disadvantage and loss." From *Youth: Its Education, Regimen, and Hygiene*. By G. Stanley Hall.

high schools upon exercises which deal with the elements of beauty, such as subtlety of proportion, refinement of line, gradation of value, modulation of color, and harmonious relations of parts, calculated to develop discrimination and taste.

10. Recognizing that these can not be presented abstractly, and that they have to be considered in dress, in house furnishing, and every other phase of selective art; and recognizing also that "The fundamental trades, such as those of the carpenter; mason, blacksmith, wheelwright, painter, hand leather worker, shoemaker, the potter and the weaver, have provided immensely valuable education for the human race, indeed have been the chief means of raising barbarous peoples to a condition of approximate civilization,"¹ an orderly course will insist upon a perpetual and vital interrelation between all lessons in drawing, design, and color, and the enjoyments and activities of daily life, and the common handicrafts. An additional reason for this insistence lies in the fact that the modern commercial history of France, of England, and of Germany, has proved beyond the slightest possibility of doubt, that success and supremacy in any of the industries based on the trades depends primarily upon the art-educational training of workmen.

In the high schools, therefore, an orderly course means well-defined groups of topics of the most practical nature. With the present plan in force of arbitrarily differentiated high schools, the groups might be somewhat as follows:

Girls' High.

Dress and household decoration, closely articulated with domestic art; nature drawing and decorative design (including the arrangement of flowers) and the appreciation of works of art.

Lowell and Mission.

Free-hand drawing, composition, and structural design, related to the science courses, to house building and furnishing, to civic betterment, and to the history of art.

Commerce.

Design and representation as related to office work, to business printing, commercial advertising, goods display, etc.

Polytechnic.

Costume design; interior decoration; printing and bookbinding; mechanical and architectural drawing; commercial modeling, and design for manufactured objects; the history of handicraft.

11. Advisory committees of business men, artisans, artists, and other especially interested persons should be formed to consult with the director of art instruction and the supervisors as to the courses offered; a committee of printers and engravers for courses in print-

¹ From *Changes Needed in American Secondary Education*. By Chas. W. Elliot, Bur. of Educ., Bul., 1910, No. 10.

ing; of architects and builders for courses in architectural drawing; of mechanics and engineers for courses in mechanical drawing; of manufacturers and merchants for courses in commercial design and advertising; of home makers and housekeepers for courses in costume design and domestic art. Only through such cooperation are the best courses possible.

12. In the evening schools opportunities for such practical instruction as that now being offered by the Humboldt evening school should be greatly extended. In the recent survey of industries in Minneapolis¹ it was found that people in the following trades all saw the need of instruction in one or more of such topics as mechanical drawing, free-hand drawing, lettering, color, and design, in evening continuation schools:

Advertising men	Milliners.
Architects.	Ornamental plasterers
Carpenters.	Paper hangers
Cabinetmakers	Photographers.
Contractors.	Photo-engravers
Commercial designers	Plumbers
Dressmakers	Printers.
Electricians.	Publishers
Glassworkers.	Salesmen.
House painters.	Sheet-metal workers
Interior decorators	Steam fitters.
Jewelers.	Stonecutters.
Lithographers	Window trimmers
Machinists.	Wood finishers.
Masons.	Woodworkers.

Undoubtedly representatives of these trades in San Francisco would agree in this matter with their fellow workers in Minneapolis and welcome any extension of the evening courses the board might be able to offer.

III. ORGANIZATION FOR INSTRUCTION.

The supervisor of drawing is now directly responsible for the character of instruction in the elementary schools, Grades II to VIII only, which contain about 57 per cent of the pupils of the city. The supervisor has but three assistants. She is allowed to hold one general teachers' meeting each semester for each of the seven grades. While attendance upon these meetings is supposed to be compulsory, the rule is not enforced.

Meetings are also held by the supervisor and assistants every Monday afternoon for the benefit of all grade teachers who need special individual help or instruction. While drawing is among the

¹The Minneapolis Vocational Survey. Bur. of Labor Statistics, Vocational Education, Series No. 1.

required subjects of examination for certificates to teach in the schools (School Law of California, sec. 1772), this part of the law is practically disregarded. As a result a large percentage of the new teachers each year are not qualified to teach even the most elementary topics in drawing. Such teachers are supposed to attend these Monday meetings. For one reason or another a majority of them do not attend. It is reported that the attendance averages less than 20 per cent of those who most need such instruction.

The teachers in the other individual groups classified in Section II, namely, the first grades, the Jean Parker School, the three intermediate schools, and the five high schools, receive no expert supervision, hold no conferences for mutual help, seldom if ever visit one another's classes, and apparently know little about what is done in the city outside their own schoolrooms. Here and there teachers may be found who read, study in summer classes, or travel occasionally, or practice some form of art or craft, and try to keep in touch with the outside world, but the number of such teachers seems to be small.

Under these conditions it is not surprising to find the widest possible range in the results of instruction.

In the first grades work in illustrative drawing, paper cutting etc., varies, according to the teacher, from that which is very good to that which is of slight value. There seems to be but little drill upon the elementary facts, terms, and processes, without which a foundation for good habits in drawing can not be established.

In the intermediate schools some good work is to be found, especially in mechanical drawing. It has a definite aim, and is related to other school work. The freehand drawing in these schools is far from what it should be, partly because its aim is not well defined, and partly because of the method of teaching it; namely, by dictation rather than by actual demonstration before the class. The work in design is weak because the pupils do not see enough good design to have ideals and because the fundamental principles of design are not inculcated.

While in the past as good nature drawing has been produced in some of the supervised elementary schools of the city as is likely to be found in similar schools elsewhere, at the present time hardly any of that grade of work is produced except in the Jean Parker School and in a few others where individual grade teachers have a special liking for nature drawing or a conviction of its value. In the supervised elementary schools where the teacher in charge is capable, willing, and enthusiastic, extraordinarily good results have been secured. In some exceptional cases the spontaneous story drawing, the plant drawing, the design (especially that applied in booklet making) and the dec-

orative coloring, have seldom if ever been surpassed in schools of similar grade. But such results are not common. Under existing conditions it is not surprising to find the work in these elementary schools as a whole far from satisfactory. The children seem to lack a clear perception of what they are after; they have difficulty in expressing themselves by means of drawing; their work in drawing seems unrelated to other school topics and to anything outside school. In other words, it does not have the vital relation to the every-day activities of the pupil in school and at home that it should have, nor is it related to the high-school courses in such a way as to be most helpfully preparational. It is only fair to say that these defects are by no means confined to the work of San Francisco children. They appear wherever the courses and methods of instruction lack unity of aim and purpose.

In the high schools the results vary as day and night. In one the mechanical drawing, so far as mere technic is concerned, is above criticism; in another the freehand drawing has scarcely a single good quality to commend it. In one the topics of instruction are admirable; in another the children have been held week after week to unreasonable and difficult tasks. In one the design is technically excellent, but practically useless because uninfluenced by the requirements of manufacture; in another not a single sheet of drawing was found that showed a grasp of even the first principles of representation.

On the whole the weakest art work in the city was found where the strongest should appear; namely, in the high schools. With the exception of the work of two or three teachers it is far behind the best work of such schools elsewhere, and the results so far as they could be observed have little practical or cultural value.

The best results of instruction in drawing and design were found in the endowed schools. The reasons are not far to seek. The courses in these schools are interrelated, the problems are vital, and the well-trained teachers cooperate heartily with one another.

RECOMMENDATIONS

13. For properly administering the courses of instruction in art in a city of the size of San Francisco there should be a complete organization of the teaching forces somewhat as follows:

(a) A director of art instruction, who should be held responsible for the courses of study in art for all schools, and who should have general oversight of the work of all teachers throughout the city who have anything to do with art instruction.

(b) The director should have the assistance of a corps of at least five broadly trained efficient supervisors. These supervisors would constitute an advisory board, cooperating with the director in the

making of courses of study for the various groups of schools, and in specifying required supplies for art instruction; visiting regularly all the schools of the city; and promoting by every possible means the efficiency of special, departmental, and grade teachers.

(c) In the three intermediate schools and in all the high and evening schools there should be well-trained special teachers of drawing and design, themselves able to produce the kind of result required of their pupils.

(d) In all other buildings containing pupils above the sixth grade the departmental system should be extended to include art instruction. In each building a departmental teacher of art could be developed within a year from the present teaching force, especially if a little additional compensation were offered in recognition of increased efficiency.

(e) Instruction in drawing in the first six years should be given by the grade teachers, under the oversight of the supervisors. This means that the law requiring adequate preparation in drawing on the part of those who receive teachers' certificates should be rigidly enforced, and that attendance upon the grade teachers' meetings, one during each semester, should be required by the rules of the board.

(f) The classes for individual instruction and practice for teachers now held by the director or supervisors should be continued. The attendance of grade teachers now in the employ of the city who are notably inefficient in drawing should be made compulsory, and all others should be encouraged to attend who wish to improve their work or to become departmental teachers of drawing.

IV. FREE TOOLS AND SUPPLIES.

Notwithstanding the School Law of California, issued by the superintendent of public instruction, section 1620, which specifies that "writing and drawing paper, pens, ink, crayons, lead pencils, and other necessary supplies for the use of the schools, must be furnished under the direction of the city board of education . . . and charges therefor must be audited and paid as other claims against the county school fund of their districts are audited and paid," the city and county of San Francisco furnish only drawing paper for the use of pupils. The pupils are required to buy for themselves such necessary material as rulers, erasers, crayons, drawing inks, water colors, drawing boards, T squares, drawing instruments, and materials for working out any practical problem in drawing or design. In the annual report of the board of education for 1914-15, issued in typewritten form, drawing supplies were not listed in the table of disbursements for the year. Upon request, the department of

education kindly furnished the following memorandum of the cost of drawing supplies for the fiscal year:

Elementary schools (under Miss Katherine M. Ball, supervisor of drawing), as to drawing.....		\$434. 21
High schools:		
Girls'.....	\$14. 75	
Lowell.....	101. 90	
Missiou.....	51. 84	
Polytechnic.....	130. 62	
Commerce (omitted).....		
Intermediate schools:		299. 11
Crocker.....	\$40. 71	
Hamilton.....	16. 36	
Horace Mann.....	44. 36	
		101. 43
Total		\$838. 75

RECOMMENDATION.

14. Provision should be made to enable the board of education to comply with the law. School children throughout the city should have equal privileges. This is possible only on the basis specified in the School Law of California.

V. TALENTED CHILDREN.

The school system of the city makes no provision for discovering, encouraging, and training talented children. Talented children are of such immense consequence to any community that a city is justified in making special provision for them. They are quite as likely to appear among the poor as among the well to do. In any case they should be found early and nurtured persistently. They are the city's chief asset.

RECOMMENDATIONS.

15. For this purpose (a) there should be hearty cooperation between teachers and supervisors in discovering talented children; (b) extra work should be provided and extra time set apart for such children; (c) special classes for such children, after school hours or on Saturdays, should be established in various parts of the city under the joint direction of the director of art instruction for the city and the director of the Art Institute. To make such classes

¹ This means less than 2 cents per pupil in the elementary schools, less than 7 cents per pupil in the intermediate schools, and less than 9 cents per pupil in the high schools for 1 year.

² Not in drawing and design only, music and every other useful activity.

possible the city should furnish rooms in certain specified school buildings and appropriate money for special instruction. At the outset the sum of \$500, to be expended in the form of 100 scholarships at \$5 each, would be sufficient. These scholarships should be awarded to pupils of the seventh and eighth grades throughout the city who win them through good work in drawing and design; and the money should be turned over by the city to the Art Institute, which would furnish the special instruction; (d) these pupils should be given credit for this work in whatever high school they may attend and therein be given extra time for pursuing still further their specialty. Certain courses in all the high schools should be coordinated with courses in the Art Institute in such a way that work done in the high schools could be accredited at the Art Institute. Four years' work in the local high school might count as the equivalent of the first year's work in the art school. Art-school scholarships for high-school students should also be established by the city.

16. In all this cooperation between the public schools and the Art Institute the pupils in the normal classes at the Art Institute might be of great service to the city if allowed to teach for practice, under the supervision of the director of art instruction, in the city schools.

To secure these opportunities for talented children the trustees of the Art Institute have expressed themselves as ready to cooperate with the city in every possible way.

CONCLUSION.

A program of reconstruction and enrichment such as these recommendations suggest can not, of course, be carried out all at once. But the beginning once made, progress would be rapid, if the entire school system could be established upon the basis outlined elsewhere in the report. Under such conditions all the children of San Francisco would be led to appreciate their heritage of natural beauty, to enjoy the wealth of beautiful things stored in their city, and to exercise taste in the selective art which every person has to practice. The gifted children would be discovered and trained to add to the wealth of the city through creative participation in its art industries and to increase its prestige through enhancing its civic beauty. Moreover, through the development and utilization of its Art Institute, as the crown of its art educational system, the city would become the goal of ambitious talent throughout the whole region and play its logical leading part in transmuting the glories of the State and the genius of its people into works of fine art that would add new honors to California.

SUMMARY OF RECOMMENDATIONS.

INSTRUCTION IN ART.

1. The school grounds should be improved, and an expert interior decorator employed to improve the interiors of school buildings.
2. In each school building there should be maintained a constantly growing collection of work done by the children.
3. Schoolrooms should be furnished with pictures appropriate to the grade of the room in the elementary schools and to the subject of instruction in the high schools.
4. A school library for purposes of art instruction should be started in every school building.
5. Each school building should have a collection of beautiful things.
6. The valuable reference material now stored in the various museums of the city should be made available for use in the schools.
7. An orderly and well-defined course of instruction should be formulated for all the schools of the city.
8. During the first six years in school such a course should emphasize the importance of putting the children in possession of the tools, the elements, and the fundamental processes of delineation.
9. After the sixth year, emphasis should be placed upon exercises which deal with the elements of beauty, such as subtlety of proportion, refinement of line, graduation of value, modulation of color, and harmonious relations of parts, calculated to develop discrimination and taste.
10. The course of study should insist upon a perpetual and vital interrelation between all lessons in drawing, design, and color, and the enjoyments and activities of daily life, and the common handicrafts.
11. Advisory committees of business men, artisans, artists, and other specially interested persons should be formed to consult with the director of art instruction and the supervisors as to the courses offered.
12. In the evening schools opportunities for practical instruction in the drawing related to the various trades should be greatly extended.
13. The organization of the art department should include: (a) A director, responsible for all courses of study in art in all schools, and for general oversight of the work of all teachers having to do with art instruction; (b) a corps of at least 10 broadly trained supervisors; (c) in all intermediate, high, and evening schools there should be well-trained special teachers of drawing and design, themselves capable of producing the results expected of pupils; (d) in all other buildings containing pupils above the sixth grade the de-

partmental system should be extended to include art instruction; (e) during the first six school years instruction in drawing should be given by the regular grade teachers under the oversight of the supervisors; (f) the classes for individual instruction and practice for teachers should be continued; and attendance of teachers notably inefficient in drawing should be made compulsory.

14. Provision should be made to enable the board of education to comply with the law requiring that "necessary supplies for the use of the schools must be furnished" free to pupils.

15. Adequate provision should be made for discovering, encouraging, and training specially talented children, by (a) hearty cooperation among teachers and supervisors, (b) extra work and extra time for drawing for such children, (c) special classes for such children after school hours or on Saturdays, (d) school credit for special achievements of this character.

16. The possibility of utilizing students in the normal classes at the Art Institute as special part-time teachers in the public schools under the supervision of the director of art instruction should be considered.

Chapter XII.

HOME ECONOMICS EDUCATION.

PART I.

A discussion of home economics education in the public schools of San Francisco necessitates a résumé of conditions as they existed at the time of the survey committee's visit; a statement of ideals in regard to this phase of education; and a series of recommendations for immediate modifications and the ultimate development of courses, instructional corps, and material equipment.

Vocational training for wage earning will not be considered in this section of the report, though many of the wage-earning occupations for women are closely related to the subjects included in home economics courses.

Home economics education includes instruction in those subjects which relate to home making and its coordinate activity, housekeeping. It is prevocational in so far as it acquaints the student with many household employments, especial proficiency in one of which may later be developed and become a wage-earning occupation. It is vocational to the extent that it actually prepares a student for effective discharge of duties within the home and gives scientific preparation for efficient administration of household affairs. Home economics contributes in large measure to the general education of the student, leading to accurate perception and intellectual development.

Modern civilization tends to place upon women the economic functions of consumers, and, to a less degree than in former times, those of producers of wealth. The concrete knowledge gained in handling materials, estimating cost, and considering time values becomes of direct value in training intelligent distributors of family incomes. The management of a modern sanitary home involves many operations and demands much power of adjustment. The school must supply both knowledge and skill.

Home economics, therefore, finds its place in the school curricula because it furnishes vocational training in that occupation in which

93 per cent of all American women ultimately engage; because it gives prevocational training leading to the industries in which the majority of all women wage earners enter; and because it contributes to that training which develops mind through sense development and awakens intelligent interest in problems relating to good citizenship.

In considering the children of San Francisco certain facts must be borne in mind:

(1) The city is at the point of a peninsula with excellent transportation facilities to the mainland by rail and by water. So good and so swift are these methods of transportation that great numbers of those employed in the city commute and keep their families in the near-by cities of Oakland, Berkeley, Alameda, Sausalito, and San Mateo. The very poor can afford neither the time nor the expense incident to this daily travel. This condition of life affects the school population and deprives it of many children belonging to families of men of moderate means. Many of the wealthy send their children to private schools.

(2) The city is built up and down abrupt hills, some of which do not permit of street railways. In the outlying districts the building operations have been limited to the lower levels, and the streets over the hills are still unopened. These geographic conditions react upon school conditions and necessitate school accommodations somewhat different from those which may be considered best in cities located differently.

(3) San Francisco's living conditions show marked contrasts in different sections of the city. The northeast section is congested. Of 3,073 children reporting, 1,889 lived in tenements, flats, or apartments. This region includes the oriental settlement and receives the majority of the newly-arrived foreign people. About the same number of children reported from the western section of the city, 4,035, and of these only 885 lived in dwellings housing two or more families. In the first region many mothers work and the children carry much of the responsibility for home work and household financial management. The Mission section is another congested district and in contrast with it is the south section, where but 233 out of 4,364 children live under tenement conditions. Uniformity of instruction concerning food and living conditions under such diverse home experiences is evidently unreasonable.

(4) In the school population of San Francisco may be found children of every race and nationality. Many of these children come from homes in which no word of English is spoken and where the older members of the family do not understand school attendance laws or laws relating to child labor. These adults, many of whom came from the rural sections of Europe, meet new conditions of living when housed in tenements for the first time and ignorant.

they often are, of the fundamental laws of sanitation, the health of the children is greatly affected by the family's changed mode of life in the new country.

(5) San Francisco presents a peculiarly unstable school population. Not only do the foreign parents move from one section of the city to another, but the American population coming into the State from the East uses San Francisco as a "port of entry" for much of the Pacific coast and they remain in San Francisco a few months or years, until a choice has been made for permanent residence. An illustration of this changing population may be taken from the John Sweet School. In this school in 1915 there were 606 pupils entered, 262 transferred, and 344 that merely disappeared from the school without record of their later whereabouts. This shifting school population seriously complicates school administration.

(6) Because of foreign parentage and existing economic conditions, many children in the San Francisco schools are over age. In groups taken at random the following ages were given:

In low seventh class (just entering seventh grade) 1 was 11 years; 5 were 12 years; 10 were 13 years; 4 were 14 years; 3 were 15 years. The normal age for students entering the seventh grade is 12 years. These would require two entire years to complete the elementary schools.

A high seventh-grade class questioned reported, as follows: Six were 12 years of age; 12 were 13 years; 7 were 14 years; and 5 were 15 years. These had one and one-half years of elementary school time ahead, making two-fifths of the class reach ages from 15½ to 17 years before finishing the elementary schools.

Table 23, page 34, exhibits this condition most clearly.

(7) Another condition affecting the teaching of home economics is that large numbers of girls enter the upper elementary grades from Catholic schools and "homes" in which a considerable degree of skill in handwork has been developed, and these students are classified only with difficulty.

(8) The climate of San Francisco varies little throughout the year, and the extremes of heat and cold which have in other parts of the country determined the length of the school are not here existent.

These factors of racial inheritances, geographic and climatic environment, and economic status must not be overlooked in any detailed study of school conditions.

COURSES OF STUDY IN HOME ECONOMICS.

Regular elementary schools.—Domestic science, i. e., food preparation, is required of all seventh and eight grade students in the ele-

mentary public schools. The course of study consists of a logical sequence of lessons wherein the student's attention is chiefly centered on cooking, though discussion of food values and the economical purchase of foods are not omitted. The course is rigid and makes little provision for choice either as to food material or method of preparation, because the course has had to be planned with economy of food materials as the dominating principle. Every girl, no matter what her race, religion, or economic status, cooks exactly the same articles in the same way at a certain period of her classwork. The cost of food materials used per pupil for the entire year of 1915-16 was less than 44 cents.

The domestic-science or food-preparation course for the three intermediate schools follows the general outline of that used for the elementary schools, but is modified by the teachers directly in charge of this work. Since each of these three schools is a law unto itself, even the time allotment is not necessarily uniform. Small quantities of food are used because of the small expenditure permitted. In general, the sixth-grade girls have one lesson of 85 minutes each alternate week, though at times they may have a lesson each week for one-half year in the sixth grade or a lesson weekly for the entire grade. The seventh and eighth grade students have one lesson per week—from 85 to 120 minutes—in these intermediate schools. However modified, the course still includes only small recipe cookery. It tends to develop along lines of better housewifery practice.

Sewing in the elementary schools has not been provided by the school authorities. Practice teachers from Lux School are permitted to teach sewing to the children in the lower grades in certain schools, and four regular domestic-science teachers who have free hours are also used. The course of study in sewing had been in use but a few weeks at the time of the survey committee's visit, and was, as the supervisor of domestic science (under whom this instruction is given) frankly stated, "on trial." Since this course is but tentative and must of necessity be adjusted to the age of students who in the various schools are permitted by the principals to take this work, and modified by the opinions of those in authority over the Lux students, a discussion of the course is not here necessary, though there was evidence that it had been planned with care and along the most approved lines.

Sewing in the three intermediate schools.—For the three intermediate schools in which sewing is taught, there is no uniform course of study. Each teacher plans her work independently and in no way consults the supervisor of domestic science or her fellow teachers of sewing in other schools.

The Jean Parker School is for girls only. The cooking follows the usual course, but handwork and sewing extend through all the

grades and follow a carefully planned and consistent course of work. Sewing is taught by the room teachers and is, until the eighth grade, limited to very small articles. Millinery is taught in the Jean Parker School. The pupils report voluntarily and after the regular school hours. This is the only grade-school millinery class in the public schools of San Francisco.

There is no provision for teaching the care of the home, the care of the sick, home sanitation, or child welfare, except as the teachers of domestic science are able to give some little instruction of this kind in connection with the cooking lessons.

The absence of classes for boys in camp cookery is particularly noticeable in a community from which go so many boys into summer camps of foresters, fruit pickers, hop pickers, and workers in fisheries and canneries.

High-school courses in home economics.—There is no uniform course in home economics in the high schools of the city. Where work of this nature occurs, it follows a course arranged by the teacher in charge.

The courses offered in the Polytechnic High School are newly organized and are undergoing modifications. The food-preparation course is detrimentally affected by the necessity of preparing foods only such as are demanded for use in the school lunchroom. The noon lunch furnished groups of teachers is a development in the right direction.

The sewing and millinery courses are of accepted standards, but are not closely coordinated with the art courses. The sewing courses in the other two high schools are unrelated to each other or to that of the Polytechnic High School.

Evening-school home economics courses.—There is for the evening-school work a course in cookery, one in sewing, and one in millinery. The course in cookery is very similar to the course used in the elementary day schools—all small quantity cookery, with brief talks by the teachers on purchase, use, and the food value of articles at hand.

A definite sewing course can not be advantageously followed in the evening schools as now organized, owing to the necessity of adaptation to the needs, experience, and materials of the various students enrolled, who may be young or old, experienced or untrained, American or foreign.

The millinery course is well planned and consistently followed.

Evening classes meet for two hours. Dressmaking and cooking classes meet twice a week, while the millinery classes meet but once. The students pay \$1 for materials used in the millinery classes, 15 cents for thread and needles used in sewing, and 25 cents per month for materials used in cooking classes.

There were 12 evening classes, averaging 25 mature women students per class, or a total of 300 women in all San Francisco receiving instruction in household arts at the expense of the city. This evening-school work is offered at but four centers—Juan Packer Bernal, Irving M. Scott, and Haultain. It is reported that there is always a waiting list equal to the enrollment.

Courses for the unusual child.—There are no courses especially arranged for retarded or overaged children, or for children handicapped by such physical defects as deafness; nor are there courses planned for the working girl who has free time on Saturday, nor for the housekeeper who has afternoon hours available. Four girls from the oral school report to a class in cooking.

Teaching force.—San Francisco has in all 23 teachers of home economics subjects in the regular day schools. Of these, 13 teach cookery in the elementary and intermediate schools; 3 teach sewing in the intermediate schools; 4 teach in the Polytechnic High School; 2 teach sewing and millinery in the Girls' High School; and 1 teaches sewing in the Mission High School. In addition, there are 3 teachers of evening schools who are paid per evening of work, and 2 part-time teachers of cookery in the elementary schools. There were at the time of the visit of the survey commission 17 Lux School students teaching sewing in the schools.

Home teachers.—In recognition of the great burden of responsibility that rests upon coast cities in receiving foreign people and training them for American citizenship, the legislature of California made legal the employment of "home teachers." To teach the foreign or unfortunate mother how better to care for her children, how to obtain for her family sanitary conditions, and how to conserve her meager income, is of evident importance to the entire community.

San Francisco has but one "home teacher" and that one is supported by the Council of Jewish Women. In less than two months she visited the homes of 78 absentees and investigated the causes of the children's nonattendance at school.

In many cases she found that the newly arrived parent did not know the meaning of the compulsory education law, and often she found illness due to ignorance. Is it strange that those who have never lived in apartments or congested districts should find it difficult to adjust their habits of life to these new conditions in a foreign country?

The teaching force employed for instruction in home economics is manifestly inadequate to give the quantity and type of instruction which a city school system of the size of San Francisco needs.

TABLE 153.—Home economics in five cities.

Cities	Population	Home-economics teachers employed.	Comments.
Cincinnati, Ohio.....	361,391	42	Instruction begins in fifth year.
Pittsburgh, Pa.....	544,000	73	
Minneapolis, Minn.....	391,408	30	These employed in teaching cooking only.
Los Angeles, Cal.....	319,198	80	In elementary schools, others in evening and high schools.
San Francisco, Cal.....	416,912	24	

Table 153 shows that San Francisco lags far behind the following cities:

Cincinnati, Ohio, a city of somewhat similar size, employs 42 teachers in the regular home-economics classes, and the instruction begins in the fifth grade.

Pittsburgh, Pa., a city but one-fourth larger than San Francisco, employs 54 teachers in the elementary schools, 2 in the industrial, and 17 in the high schools, besides special teachers for trade work: a total of 73 teachers regularly employed, in comparison to San Francisco's 24.

Minneapolis, Minn., has 38 centers and 30 teachers of cookery in the elementary schools alone, besides 26 centers for teaching sewing.

Los Angeles, Cal., employs 1 supervisor, 4 assistant supervisors, and 75 special teachers of cooking and sewing in the elementary schools, besides a full corps of teachers of home economics in the high schools and others for night-school work.

Teaching conditions.—The majority of the teachers of cooking in the elementary schools of San Francisco have entered by examination. The system of examination now in existence seems to be fairly administered, and the selection of teachers by that means has been satisfactory. The teachers indicate in their reports that they realize the difficulties under which they work, which are due to overcrowding, mixed classes, insanitary rooms, and the enforced economy of materials which precludes cooking in quantities comparable to those used in a home.

The salaries for the cookery teachers vary from \$3 per day for the substitute teacher to \$1,224 for the teacher longest in service. Length of service should not determine amount of salary paid. Ability, preparation, successful teaching, and continued intellectual growth should be controlling factors in salary rating.

There is an average of 300 students to each teacher. That this condition of an excessive number of students being instructed by one teacher is common to many other city schools does not prove that it is desirable.

A home-economics teacher should know her pupils and also their home conditions. To expect that she shall inform herself with respect to the conditions existing in 300 different homes and become helpfully acquainted with 300 children, each of whom she sees but once each week, is to expect the impossible. The teachers in the high schools average larger salaries and more extended preparation. They instruct fewer students per week, but often have excessively large classes.

In the Polytechnic High School there are 4 teachers of household arts. They average 39 teaching periods per week, with an average of 25 students in each period, an average of 965 individual lessons taught a week. This is about 8 hours' work per day per teacher and is an unreasonably heavy load. These teachers report earlier and stay later than the average high-school instructor, and one of these has in addition to this burden the responsibility of the school luncheon and the luncheons prepared for groups of teachers.

The sewing teachers in the Mission and Girls' High Schools labor under the added difficulty of attempting to teach sewing in forty-five-minute periods. This arrangement does not permit more than 80 minutes a day of clear time for sewing. This short time with large classes makes progressive instruction impossible.

The evening-school teachers are women selected because of their special fitness as instructors of mature women. These teachers are paid \$3.50 per evening of work.

Supervision of home economics.—The present supervision of cooking in the elementary schools is good. Stimulating conferences of all subordinate teachers are regularly held; new information in regard to foods is placed at their command; sources of exhibit materials are discussed; and general matters relating to lesson costs and presentation are considered. Besides these conferences, the supervisor is actively interested in the instruction given in each center and visits all centers regularly.

There is no supervision of the sewing in the three intermediate schools. While these schools are, in a sense, experimental, and the advantages of added time spent on vocational subjects are under discussion, some uniformity should be maintained and a consistent course should be administered in order that conclusions may be based upon the results of fair experimentation. With the present lack of supervision of sewing there is no similarity of methods or plans in the three schools, and a transfer of a student from one to the other would greatly confuse the student in this line of work.

The Jean Parker School, as elsewhere mentioned in this report, gives a sewing course entirely different from any given in any school in the city.

The Irving Scott School begins sewing in the fourth grade, and this is under the cooperative direction of the Lux School teachers and the supervisor of domestic science.

The home-economics work in the high schools is unsupervised; hence no consistent scheme of progressive instruction is possible; nor can uniform work be established in the various high schools. Theoretically, one member of the teaching force in the department of home economics in the Polytechnic High School is in charge of all home-economics work given in that school; but, in actual operation, it amounts to no supervision since she is so overloaded with class teaching and other responsibilities that she is unable to assume even the limited authority supposedly delegated to her.

The Mission High School sewing instruction is unsupervised, the periods are of 40 minutes' length each day, and the students are withdrawn from the class for other duties, so that no class is the same throughout the week. Some of the same conditions exist in the Girls' High School, but the difficulties under which the work is given are not so great. The absence of supervision permits the sewing in these different schools to be wholly unlike and would make credit adjustments difficult were students to change from one high school to another.

Adequate supervision would remove these evils of inequality and lack of standards and would make a consistent, progressive course possible.

EQUIPMENT AND SUPPLIES.

Food preparation.—In the elementary schools the cooking is taught at "centers." These centers are so situated that one-fourth of all girls in the seventh and eighth grades must leave their buildings to go to others in which the required instruction in cookery is given. Some instances of this are the following: One hundred and sixty-five Fairmount School children walk 15 blocks in all kinds of weather. No street cars are available. The Francis Scott Key School children are 35 blocks from the Laguna Honda center, to which they are supposed to report. Ninety-one Farragut School children travel by unopened streets, over sand hills. The Visitacion Valley School children travel 30 blocks where the car service is poor and the children are of a class that can ill afford car-fare expense. These are foreign children for whom there should be a sense of special responsibility. It is unnecessary to call attention to the amount of school time lost to the pupils and to the special teacher of cooking because of this time-consuming travel from school to school.

For giving instruction in cooking to all girls and young women in San Francisco there are 28 kitchens in the elementary and intermediate schools and 2 in the Polytechnic High School.

The quality and condition of equipment varies from that of the Polytechnic High School, which is of the most elaborate, up-to-date type, to that of the Hearst and Horace Mann Schools. To the latter 401 students come weekly. All cooking utensils are exposed to dust and dirt and the desks are insanitary and wholly inadequate. In the Hearst, Bay View, and other schools the floors are dirty and illy kept and furnish a poor example to the children of what a kitchen should be.

In the Crocker, Everett, Glen Park, Hearst, and five other schools there is no provision for heating the kitchens except by lighting the open gas flames of the hot plates. From other schools come classes often wet, many times cold, to these unheated rooms. "Too cold to write" is a common expression. In an effort to make the rooms reasonably warm the gas burners are lighted and the room is filled with the gas waste products and the windows drip with moisture.

In the new buildings the home-economics rooms have been put in the basement, and the only means for ventilation of these rooms is through small upper sections of the windows. When 24 gas hot plates are burning and 24 kettles of cooking food are boiling, the air is laden with moisture and gas products. The smallness of these openings may insure against the ingress of the food thief, but the openings do not provide for the egress of those gases which steal the health of the children.

Ten of the 15 teachers of cooking listed screened windows as one of the conditions most desired by them, for even where the kitchen is flush with the street and in a position to attract the flies from the gutters unscreened windows were found in the school kitchens.

Personal cleanliness can not be easily achieved where 30 or more students come to a laboratory equipped for 22 or 24, and supplied with but two sinks. These sinks are used as places for hand washing, obtaining water for cooking, and for emptying all dishwater. It is not surprising that hands are not clean, that hair is disarranged, and that teachers are unable to oversee the personal appearance of the children when there are so many in the room that every desk is occupied and still enough children must be crowded in to half fill another room. The consensus of opinion among expert home economics teachers is that 20 students are all that any one teacher can properly care for in one sewing or cooking class. In some centers classes from different grades and different schools report at the same time and the teacher is forced to give two lessons at once.

Each of 4,365 homes sends a dish towel to school each week to be used by a child from that home. Will all those 4,365 towels be from homes uninfected with disease germs? The dishes wiped by each towel are left to be used by another child. The latter child may

come from the most cleanly and sanitary home, while the former may come from the most undesirable neighborhood.

All food material in the San Francisco cooking classes is purchased in quantity and distributed to the various kitchens. The estimates of needs are made twice a year, except for butter and eggs, which are supposed to be bought once a year and preserved for future use. With modern methods of commercial cold storage, it is to be doubted if this annual purchase of eggs and butter is advantageous.

A revolving fund of \$100 per month is provided for the purchase of meats, vegetables, perishable fruits, and fresh milk for 4,365 pupils. Two and one-half cents per pupil per month!

From necessity the children handle the most minute quantities possible in their cooking lessons.

Exhibit material is an essential in teaching home economics. In many of the kitchens the teachers have secured through their own efforts and at their own expense excellent exhibit material, but this is not so abundant as it should be nor so varied as it might be if there were some school fund available for its purchase.

In one high school—the Polytechnic—there is provision for food-preparation classes. The two laboratories provided are well lighted, well ventilated, and provided with modern equipment for small recipe cooking.

The lack of a dining room makes necessary the use of the center of the laboratory on any occasion of meal service. The storerooms are unnecessarily large. There is no small kitchen or dining room where meal preparation can be conveniently taught under approximately home conditions. All food materials come from the storeroom of the cafeteria, and the prepared food is sent back to the cafeteria for sale. This arrangement provides for the consumption of articles prepared, permits of preparation of larger quantities, but affects the work disadvantageously to some extent, since salable articles must always be produced.

There are sewing rooms in the three intermediate schools in San Francisco. The room in the Crocker School is good, well lighted, and large enough for ordinary classes. This had just been occupied at the time of the visit of the commission and new machines had been purchased for the classes. In the Hamilton School the conditions are fair, but the room is unsuited on all dark days, since there is no provision for electricity, and there are too few windows to furnish adequate light, except when the sun shines. The third sewing room, the one in the Horace Mann School, is unsuited to its purpose and poorly equipped. Partial partitions divide it from other rooms. It is long, narrow, dark, and cold. There are 161 girls in the graduation class from this last intermediate school, and 161 graduating

dresses to be made on two machines! In the Jean Parker School there are sewing machines for the use of the upper-class girls and night-school students, and there are sewing machines at the Bernal Heights School and Irving Scott School for students and night-school classes in dressmaking. The rooms in these schools are not suited for sewing classes. In one there is no heat. In another the adult women sit and work at the ordinary day-school desks, which are both uncomfortable and inconvenient.

Excellent rooms and equipment for sewing and millinery are available in the Polytechnic High School and the Girls' High School, but the room in the Mission High School is in the basement, reached through the furnace room, unheated except by a gas radiator, damp, dark, and cold; nor has this room enough machines, tables, or other necessary supplies.

There are no housekeeping rooms, or apartments, or practice cottages for the teaching of home economics in any San Francisco school. There are no small-sized kitchens or dining rooms in which meals can be prepared under approximately home conditions. Housekeeping or household management can only be taught incidentally in connection with the food-preparation classes. For these classes there is nothing that the children can learn to buy, nothing they can plan, since there is no money to spend and no opportunity for original work.

An excellent room for the teaching of the home care of the sick is furnished in the Polytechnic High School. This room might also become a laboratory for students in housewifery and be made use of by night-school students. There is no other provision for teaching the care of the sick, either to children or to adults, in any public school in San Francisco.

Lunch rooms.—The entire absence of school lunch rooms in the elementary schools is noticeable. The teachers remaining at the school during the noon period usually obtain some food from the janitress or cook a lunch for themselves. The children buy from near-by stores when they have the money. The Polytechnic is the only high school having adequate lunch-room facilities.

OPPORTUNITY FOR TEACHERS TO STUDY.

The present schedule for teachers of home economics in San Francisco and the custom of deducting from their pay for days absent is almost prohibitive of summer-school courses for them. Educators consider it in all ways advantageous for teachers actively engaged in school work to attend university summer schools, but San Francisco school authorities, it seems, do not encourage this practice. If a teacher enters summer school, she sacrifices her pay for the last

week or two of the school year, which she of necessity misses; furthermore, the school gains financially in this, since the supervisor usually assumes the work of the absent teacher without receiving extra compensation. When, in order to increase her efficiency, a teacher takes a leave of absence for advanced courses, she not only spends her own time and money, but further sacrifices a portion of her following summer's vacation. Since it is assumed that advanced courses of study do improve a teacher's efficiency and make her services more valuable to the community, some plan should be evolved whereby the teacher's willingness to add to her preparation may be recognized and conditions developed that will make a leave of absence for such a purpose possible for her without additional and unnecessary sacrifices.

TABLE 154.—Location of centers for teaching domestic science, with date of installation of equipment, type of equipment, and students in attendance.

Name of school:	Date of equipment.	Type of equipment.	Students in attendance.	Remarks.
Olen Park	1909	No. 3	Local..... 57	
Hamilton	1915	No. 1	Sunnyside..... 16	
Hancock	1912	No. 1	Local..... 275	
Hearst	1900	No. 4	do..... 84	
Irving M. Scott	1900	No. 5	do..... 89	
James Lick	1911	No. 1	McKinley..... 26	
Jean Parker	1911	No. 2	Local..... 178	Students from Fairmount walk 15 blocks.
Horace Mann	1900	No. 5	Fairmount..... 165	
John Swett	1912	No. 1	Local..... 192	
Laguna Honda	1909	No. 2	do..... 401	
Mission Adams	1910	No. 1	do..... 94	
Bay View	1912	No. 1	do..... 105	
Bryant	1912	No. 1	Gratian..... 76	Francis Scott Key children excused 35 blocks away.
Bernal	1913	No. 1	Jefferson..... 17	
Crocker	1908	No. 3	Francis Scott Key..... 1	
Denman	1912	No. 1	Local..... 138	
Everett	1912	No. 1	do..... 77	
Franklin	1912	No. 1	do..... 106	Visitation children travel 30 blocks; bad walking, poor car service, foreign children.
Frank McCoppin	1912	No. 1	Visitation..... 38	
McCarroll	1909	No. 2	do..... 145	
Oriental	1915	No. 1	Columbia..... 198	
Pacific Heights	1911	No. 1	Local..... 374	
Portola	1914	No. 1	Oral..... 4	
Rosevelt	1911	No. 1	Local..... 130	Fremont children walk 4 blocks over steep hills.
Sherman	1911	No. 1	Freemont..... 59	
Spice Valley	1912	No. 1	Local..... 91	McKinley children walk 8 blocks.
Sutra	1912	No. 1	McKinley..... 44	
			Local..... 37	
			Lincoln..... 37	
			Local..... 68	
			do..... 124	Longfellow children walk 16 long blocks; can not afford car fare.
			Longfellow..... 28	
			Local..... 18	
			do..... 68	
			Grant..... 45	These children travel 7 to 13 blocks over the steepest hills in San Francisco.
			Sherman..... 53	
			Winfield Scott..... 13	
			Yerba Buena..... 48	
			Local..... 64	
			do..... 65	
			Madison..... 57	
			Local..... 47	Farragut children travel over sand hills; street not out through.
			Farragut..... 44	
			Local..... 79	
			Headline..... 49	
			Local..... 82	
			Cl. Penney..... 28	
			Lafayette..... 30	
			Rockaway..... 67	Children travel from 8 to 28 blocks.

In the above list Type 1 is the most recently installed. This equipment is good, but is not always well arranged in the rooms, and in all cases more sinks are needed.

Type 2 was introduced in 1909. Old millwork has often been used in this and in Type 3, and much of this equipment is poor and should be replaced in the near future.

Type 3 first installed in 1900.

Types 4 and 5 were installed in 1900 from old millwork and were emergency equipment at the time of construction. This equipment should be replaced immediately by clean, modern, sanitary desks, sinks, and desk equipment.

SUMMARY.

See Table 154 for location of centers.

The children of San Francisco have need of courses in home economics adapted to their varying economic conditions and their racial inheritances.

The courses in home economics are inadequate. Cookery is given only once a week in the seventh and eighth grades, except in the three intermediate schools, and in one or two others where the principals are unusually progressive.

Sewing is given by school board support only in the three intermediate schools and in four others where the principals have taken an especial interest in the subject.

Housewifery is not recognized in any course.

Home nursing instruction is available for Polytechnic High School students only.

Food preparation is not included in any high school course except in the Polytechnic High School. There are sewing classes in three high schools, but the work in each is independent of that in other high schools.

No determined effort has been made to correlate the art instruction with that of home economics.

The classes are very generally overcrowded.

The teachers in home economics are interested in their work and ambitious for its further development. With few exceptions they are reading the newer educational publications and making all possible use of summer-school courses.

The office of supervisor carries with it authority for the supervision of cooking classes in the elementary schools, sewing classes in charge of the Lux practice students, and the sewing in the three other elementary schools. The high-school courses are not under uniform supervision. The night schools are separate in supervision.

The allowance for supplies to the cookery class is so meager that only minute quantities of food materials can be used.

There is no provision for sale of food prepared by elementary schools, though there is evident need for school lunches and lunches for teachers.

Much of the equipment used in elementary cooking classes is old and in bad condition. It is located in "centers" which necessitate much traveling by children from their regular schools to these "centers" and causes loss of school time and exposure by the children to the vicissitudes of a damp winter climate.

Two high schools and one intermediate school have good sewing rooms and sewing equipment. All other sewing is done under difficult conditions.

There is need of more liberal allowances for ambitious teachers who desire to take advanced courses in home economics.

PART II.

Progress in home-economics instruction in public schools has been retarded by efforts to adjust it to the traditions of the older type of public-school education. Liberation from these traditions and a fearless consideration of the subject as one meriting a place in the school curriculum because of its own worth result in much more effective methods of teaching.

Courses in home economics.—An ideal course in home economics is prevocational, as it introduces the child to the needlecrafts, food-preparation industries, millinery trade, laundry management, and the paid occupations connected with household administration. It is vocational in that it prepares a girl or woman to assume the responsibilities and to discharge the duties devolving upon the maker of a home; training in the choice, purchase, preparation, and service of food in the home; the purchase of fabrics and their manufacture into suitable garments and articles for family use; the sanitation and care of the house; the care of children and of the sick; the appreciation of that which is beautiful; and the management of the financial affairs of the household.

It is a legitimate part of every girl's education, and it should be properly correlated with the usual academic studies and thus make education interesting and vital. Home-economics studies not only give increased manual skill, but stimulate appreciation of scientific knowledge and awaken the social conscience within the student. It trains in the accurate observation of the phenomena of plant and animal life and the commercial activities of the community in which the student lives.

RESULTS OF HOME-ECONOMICS INSTRUCTION.

The girl completing the eight grades of school should be able to plan, purchase, prepare, and serve a simple meal for a family of average size having a moderate income. She should be able to choose food materials with discrimination, recognizing those which give adequate food value in proportion to the price asked, and deciding intelligently the quantities suitable for the use of the family for which she buys. She should be able to wash dishes neatly, keep a kitchen in order, care for floors and windows, make a bed, and dust a room properly. She should know how to use a commercial pattern in garment making, manipulate a sewing machine effectively, and do hand sewing neatly; this skill with needle, machine, and patterns should amount to an ability to make all of her own plain garments. The girl finishing the academic or business course in a high school should know all that has been listed as a reasonable attainment for an eighth-grade graduate and should not only have increased in skill, but should have grasped the fundamental principles relating to nutrition, personal hygiene, care of the sick, household accounting, purchase and use of textiles and dressmaking. The student having an opportunity to complete an entire line of home economics in any high school may be required to familiarize herself with the basic scientific principles concerned in administering a household. She should have been given courses in color and design, chemistry, physics, biology, economics, and sociology, and her skill and dexterity should have increased in the use of her needle, the sewing machine, and all household utensils and equipment.

Extension courses should provide opportunities for the wage-earning girl to complete her preparation for home making and for the housekeeper to perfect her skill in discharging household duties and her understanding of the reasons for methods used in household tasks.

Especially should afternoon and evening courses offer instruction relating to the careful purchase and use of household supplies, since the financial safety of the family so largely depends upon the efficient management of the family's income.

ADAPTATION OF COURSES.

No rigid course in home economics can be planned that may be applied to all sections of a large city. All courses in home economics should be adapted to the needs of the communities in which these courses are offered. The end attained should be the same, but the means used should vary with the condition of the neighborhood where the work is given.

From the poorer sections the children of foreign parentage are often older than the average student in their grades, and since many of them leave school before completing the eighth grade, and since also they are particularly appreciative of the practical phases of education, and thereby may be induced to continue in school, it is usually necessary to adjust the home-economics course to meet their conditions and to stress the practical phases of the work. In sections of the city, the school population of which usually continues throughout the elementary grades and enters the high-school courses, a home economics elementary school course somewhat less intensive may be best adapted to their needs. This latter course may logically lead directly to the high-school courses in the same subject and be so arranged that the one becomes the basis of the other.

Every girl in the city high schools should be required to pursue one year of home economics. This course should be equivalent to a full unit¹ of work and is most effective if it consists of two recitation periods and three double periods for laboratory each week. This course meets the needs of the students in the courses leading to university entrance, and of those who pursue such vocational courses as are offered in the business high school and trade high schools.

Elective home-economics courses should be in every high school except business and similar vocational schools, while specialized vocational home economics courses should be offered in one or more high schools.

Specially adapted courses of home economics designed to meet the natural limitations of the blind, deaf, or mentally subnormal are an essential unit of all large city school systems. Deaf children become expert in any or all household activities and through these courses may be led to vocational courses affording agreeable occupations and assuring adequate self-support.

These variations and adaptations of courses do not indicate that each teacher is to plan her own work or modify the course given; indeed, just the opposite, it means definitely and carefully-planned courses which are consistent throughout and which lead the student to a predetermined goal in her training by methods adjusted to social and economic needs, these methods being uniform in similar sections of the city.

Classes in food preparation should be established for boys of the sixth, seventh, and eighth grades. If time can not be found for these during the usual school hours, they should be offered at hours convenient for the boys. While these courses are approved for all school systems, they are particularly needed in the cities of the Pacific Coast States, where so many boys go into camps of various kinds during the summer months.

¹ Equivalent of a five-hour course carried through one entire year.

CONTENT OF COURSES IN HOME ECONOMICS.

A satisfactory home-economics course includes lines of work in sewing and garment making, in costume design and dressmaking, in color and design, in house furnishing, in marketing and food preparation, in elementary dietetics and food service, in home sanitation and the care of the house, in laundering and housewifery, in household accounts and home administration, and in personal hygiene and the home care of the sick.

The foundation for the home-economics instruction is laid in the primary schools during the first four years when the child has been trained in the manipulation of materials through work in paper, cardboard, textiles, basketry, weaving, and drawing. It is supplemented in the elementary schools by the training in art and by the coordinated work in language, geography, arithmetic, elementary science, etc.

In high schools the science courses in chemistry, physics, botany, bacteriology, and zoology, and the art courses in color and design are the basis of the courses given in the home-economics department.

Several types of home-economics continuation courses are needed in all school systems. Of primary importance are courses designed for foreign mothers who need instruction that will enable them to adjust their mode of life to their changed environment. These courses must emphasize home sanitation, the intelligent purchasing of textiles and clothing, and especially should these courses assist in familiarizing the mothers with American schools and creating among them sympathetic interest in school activities.

Almost all home makers desire to extend their knowledge in the arts and sciences related to home administration. For all desiring such instruction courses should be arranged.

The employed young woman should find school courses open to her during her leisure hours wherein she could prepare herself for efficient administration of her future home and also enable her to improve her present living conditions, that she may be more adequately nourished, more satisfactorily clothed, and more capable of securing for herself sanitary surroundings.

The needs of the girl who has dropped out of school and remains at home should not be overlooked.

COURSES OF STUDY.

A. *Time.*—Elementary-school home-economics instruction should begin in the fifth grade. Through this grade and the sixth grade the subject should be given four 45-minute periods of student time per week; through the seventh and eighth grades, from seven to

ine 45-minute periods per week should be the minimum for home-economics instruction. The 45-minute periods should be grouped so that the actual work shall be 90 minutes twice each week for fifth and sixth grade children. It is possible with the usual arrangement of school schedules to arrange two classes of this type before the noon recess and two classes in the afternoon.

The seventh and eighth grade students should report to home-economics work in half-day periods twice or three times per week. Two of the eight periods in the ninth-grade work should be given to recitations, and laboratory classes should be arranged for three double periods each week. Selected groups of children in the fifth, sixth, seventh, and eighth grades can with advantage spend from one-third to one-half of their entire school hours in these home-economics classes.

High-school girls should be able to elect courses in home-economics and related sciences up to one-half of their entire school time.

B. *Details of home-economics courses in the elementary grades.*

Fifth grade.—Housewifery once each week throughout the year. Sewing twice a week for one term. Cooking twice a week the second term. The housewifery will include bed making, sweeping, dusting, table setting, care of silver, dish washing, and care of table linen, window draperies, etc.

The sewing should include both hand sewing and the use of the small commercial pattern. The articles made must be of actual use, but should be small enough to be finished before the child becomes weary of them.

The cooking will be of the small individual recipe, since at this time the child's hands do not permit of the use of larger utensils or greater quantities of materials.

Sixth grade.—One-half year in sewing and one-half year in cooking. The sewing should consist of three lessons per week of about one hour each; the cooking of two lessons each week of about one and one-half hours.

Both the cooking and the sewing should be a logical continuation of the instruction given in the preceding grade, and, in both, stress may be placed upon the purchase and economical use of materials and upon the comparative value of different types available. No opportunity should be overlooked for instructing in habits of personal neatness and quiet orderliness. The use of the sewing machine will be introduced in this grade.

Seventh and eighth grades.—Of the time spent in home economics by the seventh and eighth grade girls at least one-fifth should be devoted to recitation periods in which the subjects of food produc-

tion, food economics, home sanitation, marketing, home management, house furnishing, choice of textiles, etc., are arranged in progressive order. All cooking done in the food-preparation classes should be with family-sized quantities. Meal service should be emphasized daily and use made of the food cooked by service to teachers as a noon lunch, by supply of penny lunches, by use in the school lunch room, by special meals for the anemic and tubercular children, and occasionally by sale of products to the children or to friends of the school.

The instruction in housekeeping and home sanitation must be applied directly to the care of a practice house.

The sewing must lead not only to garments made by the girls, but to lessons in the selection of materials, with attention directed to suitability, durability, economy, and real beauty. To attain this in garment making, dressmaking, and elementary millinery, the closest of cooperation must exist between the department of art and the department of home economics. No course in home economics is complete without arrangements for visits to stores, markets, manufacturing, and to houses under construction.

The principles and processes learned during the previous year in housewifery should be applied in the food-preparation classes.

There must be a logical sequence of work and a certain amount of previous study required as preparation for each class session.

Fifteen minutes at the beginning of each lesson used in group instruction will make the work much more effective than it is when students are allowed to begin work immediately upon entering the rooms.

Ninth grade.—The ninth grade, which is the upper grade of the junior high school, or the first grade of the present type of high school, may well complete the home-economics course for the girl preparing for a business career and for the girl reasonably sure of entering a college or university.

Not less than eight hours per week should be given to home economics throughout this year. Theory should be stressed while the increase of technical skill is not neglected.

The food preparation taught in high schools should emphasize speed and efficiency and business management applied to the household. No high school can install a satisfactory course in home economics that does not offer opportunity for the student to care for rooms in a housekeeping apartment, care for household linen and supplies, cook and serve real meals at moderate cost, and assume responsibility in the use of money.

In all high schools, excepting only the ones devoted to a commercial course or other really vocational course, elective courses in ad-

vanced dressmaking, advanced food preparation, human nutrition, elementary dietetics, care of the sick, care of children, and household furnishing and home administration should be offered. In all these the theory underlying the practice should be stressed.

Continuation courses.—The short-unit course of 10 or 12 lessons is especially to be recommended for all continuation courses for housekeepers and mothers. It is often inconvenient for a mother to enroll in and attend a course of one-half year's duration, while it is entirely possible for her to take a course of five weeks with lessons twice each week, upon some phase of home-economics work which is of especial interest to her.

These short-unit courses should be arranged in logical sequence, and this same consistent development should extend into a second or even third year course of study, and may well result in the earning of a certificate at its close.

Continuation courses in home economics which are intended for employed young women should be of one-half year length and may with advantage receive high-school credit for work of high-school grade.

Correct classification of continuation students in these afternoon and evening classes is necessary. Not always the instruction that the student wants, but that of which she is prepared best to make use, should be assigned her.

Unit courses for continuation classes are suggested as follows: In foods—vegetable cookery, meat cookery, bread making, inexpensive desserts, marketing, etc. In clothing—children's undergarments; children's outer garments; dyeing, cleaning, and making over garments for children; making wash dresses; handwork; household supplies, etc. Similar unit courses should be arranged in the care of the sick, sanitation of the household, household accounting, house furnishing, etc.

The longer courses for employed young women should follow closely the regular courses of the schools. Since one out of every three young women is a wage earner between her fifteenth and twenty-fourth years, and since a majority of these are employed in pursuits evolved from employment formerly carried on within the home, it is desirable that the prevocational function of home-economics courses should not be at any time overlooked.

Supervision and instruction in home economics.—To administer properly the various courses in home economics, there must be one director. To her must be given authority to organize and direct all phases of this subject in the entire school system. Only by thus centralizing authority and responsibility can a consistent and progressive program for home-economics instruction be maintained. As in all large cities, the director of home economics will need

assistants, and she should be given as many as are needed to administer the work satisfactorily. To the assistant director, or supervisors, responsibility should be given for certain phases of the instruction.

As suggested elsewhere in this report, the division of duties may be made geographically for sections of the city; perpendicularly for certain lines of work—for instance, all instruction in clothing and textiles; horizontally, for all work below or above a certain grade—for instance, all home-economics instruction in the fifth, sixth, and seventh grades; or, all instruction in these subjects when given in continuation classes.

To the director should be delegated the authority to nominate her assistants and the teachers on the home-economics staff. Upon the director will naturally fall the authority to organize the courses in home economics in elementary schools, in high schools, in night schools, and in any special schools that may be established. She will detail the teachers to work in the parts of the city where their services will be most adapted to the needs of the locality. She will hold councils to which will come all teachers of home economics from all types of schools under city control, and she will help in all community matters in which women's organizations are interested.

If she be worthy of the position as a guide to the development of the children, she will certainly be worthy of trust in the material growth of the department in her care; hence, she will be recognized by the school architect as one to be consulted before the completion of the final plans for buildings, and considered by the committee of the school board as one to be intrusted with the selection and purchase of school equipment and supplies. The assistants will be women in sympathy with their superior officer, and especially adapted to their work. One of the most important of these assistants will be the one in charge of afternoon and evening classes.

The director of home economics should be a woman of broad culture, with thorough training in home economics. That she have executive ability, business sense, tact, physical strength, and an agreeable personality is absolutely essential, since she must administer her office, delegate duties to assistants and teachers, establish cooperation with various social and philanthropic organizations in her city, maintain cooperative relations with the various school principals, secure the support and sympathetic advice of intelligent home makers, mothers, club women, business women, teachers, and social workers, and transact efficiently the business affairs of her department. It is also desirable that she be able to speak agreeably before clubs and various educational and business associations. She must have had teaching experience before assuming the more difficult position of director, and if added to these qualifications she has had experience

in the conduct of a home, her value to the community will make her worthy of an adequate salary, and such clerical help as will relieve her of routine office work and leave her free to advise with her assistants and teaching force and cooperate with the other socializing factors of the community.

The assistant should have most of the qualifications expected of the director. If one is to have supervision of extension courses, it will be well if she be a woman with especial experience in the actual administration of a home, and if to this she has added trade experience, her value to the schools will be greatly increased. High-school teachers of home economics should be required to be graduates of four-year home-economics courses in standard colleges or universities. Elementary school teachers of home economics should have had at least the equivalent of a two years' normal school course in home economics, based upon completion of a four-year high-school course of established standards. Night school and other continuation course teachers should be chosen with extreme care. Trade experience, home experience, teaching experience, and special preparation for these should be overlooked. It is not sufficient that these teachers know their subject both theoretically and practically; they must also have received pedagogical training which enables them to impart information and understand the psychology of the mature student and the temperamental condition of the employed girl.

Since the corps of home economics teachers changes frequently in all schools, much instruction of teachers and careful supervision is necessary if a high quality of teaching is to be maintained.

Where it becomes necessary to require room teachers to teach home-economics subjects these teachers should be prepared for this added burden, and such time as is necessary for them to be prepared should be granted to them and compensation for this extra preparation should be provided. Grade teachers giving home-economics instruction should become a portion of the home-economics staff in so far as necessary supervision extends.

There is no question that better work can be done in home economics when special teachers are employed for all instruction of this type, but if the financial condition of the city will not permit of adequate school support, then some of the sewing can be taught by grade teachers. The average grade teacher is herself too often unskilled in the use of the needle and must be carefully taught before she can teach; moreover, she is often not interested in industrial education of any type and considers the added burden of equipping herself for teaching sewing an imposition. Therefore it is advisable for many reasons to provide, whenever possible, special teachers in home economics for all classes.

The successful teacher of home economics must not only know her subject and be familiar with the better methods of giving instruction, but she must also know the local conditions existing in the neighborhood wherein she teaches. There is no quick process by which she can familiarize herself with the status of the homes from which the children come, nor can she suddenly induce the mothers of the community to cooperate with her in developing a spirit of home making in the girls of her classes. Long terms of service are therefore desirable, and every encouragement possible should be given the teachers in their efforts to grasp their opportunities to improve the living conditions of those among whom they teach. In the foreign sections of the city, and in the less prosperous localities, no more profitable use of one afternoon each week of the time of the home-economics teacher could be made than in visiting the homes of the girls in her class or in meeting the mothers of these girls at the school or in the settlement house.

School authorities should not fail to encourage by all available means further study by their teachers, and they should make possible pursuance of graduate courses and attendance at summer schools.

LIMITATION OF NUMBERS IN HOME-ECONOMICS CLASSES.

No teacher in the elementary or high schools should be permitted to enroll more than 20 students in a laboratory class in either food preparation or garment making. Extension class teachers can not properly instruct more than 15 pupils in any one class. If a strong teacher is given an inexperienced assistant, the two together can instruct 25 students in extension classes.

Extension-class students are less used to receiving class instruction and enduring necessary class restraint and are more unevenly graded than are regular school pupils. They are often weary from the work of the day and consequently require more individual attention from the teacher in charge. For these reasons all classes for adult students should be kept down to the number above given.

Lecture and recitation classes may, if necessary, be extended to include 30 students, but all in excess of 20 will tend to weaken the discipline of the class and decrease the efficiency of the instruction given. Classes arranged for the unusual student, students of over age, of special economic need, of subnormal girls, of mutes, or of those not thoroughly familiar with the English language should be limited to 12 pupils, and, under certain conditions, reduced to 8.

This limitation of home-economics classes can be conveniently arranged in the elementary schools if the teacher of the room from which the girls come be made an assistant to the regularly employed

home-economics teacher for the period in which her students are in the laboratory; and it also is easy of accomplishment if large classes can be divided between the teachers of food preparation and the teachers of garment making.

Further discussion of details of departmental administration is unnecessary, since a capable supervisor receiving the cooperation and assistance of school principals and room teachers will find the solution for overcrowding that is best adapted under her local conditions.

BUSINESS ADMINISTRATION.

The business transactions necessitated by the maintenance of a department of home economics are somewhat complicated and laborious.

Staple supplies for food lessons may be bought in quantity, but the perishable food materials should be purchased as needed and by the local teacher. This gives opportunity for the teacher to acquaint herself with local market conditions and also makes it possible to instruct the children in marketing.

Equipment should be selected by the director after conference with the teachers.

The sale of products increases responsibility and bookkeeping, but the benefit derived by the students in handling larger quantities and assisting in business affairs more than justifies methods making this necessary.

LABORATORIES AND EQUIPMENT.

Rooms in which food-preparation lessons are taught should be sanitary in every respect—well warmed, well ventilated, well screened, well supplied with hot and cold water, furnished with properly laid and finished floors, and well provided with good cooking tables, sinks, ranges, and cooking utensils. A kitchen of this type should have light and attractive wall finishes, ample blackboard space, good cupboards, and cool storage closets. The seats for the children should be comfortable. Exhibit material should be abundant. Since some valuable exhibit material is expensive, it should be arranged so as to be conveyed from school to school.

The large laboratory in which cooking instruction is given becomes a place where much is taught with little, but food-preparation training should never end in that type of room; it may begin there. Home economics to be at its best must be given within a home. This "practice" home should be similar to the best type of home possible for the families from which the school children of that neighborhood come. It may be a little frame house of but three rooms and a bath; it may be in all respects like a city apartment; or it may be a house with cellar, yard, garden, and chicken pens. Of its kind it must be good, sanitary, economical, and in good taste. If it meets all these

requirements, it becomes a bond between the home of the child and that child's school life.

School practice houses are in actual use in many cities. Sometimes houses have been built, sometimes cottages have been rented, and sometimes attics or basements have been modified, which would have otherwise been waste room. The "practice" house supplies the kitchen of family size, where two or four girls can work with ease and effectiveness, where labor-saving devices may be used and labor-saving methods practiced. It affords a dining room in which meal service can be taught under normal living conditions and where standards of simple good taste and cleanliness can be established; it makes practical housekeeping instruction possible, and it makes the teaching of home nursing practicable.

Too much of the sewing taught in schools appeals only to the girl's love of personal adornment. The "practice" house makes the sewing upon house linens, draperies, and bedding possible, and offers an opportunity for utilizing the products of classes in rug weaving and other handicrafts.

Laundries.—Since much home laundering must be done in all neighborhoods, there should, where practicable, be laundry equipment in the school.

Where it is possible to secure teachers who have sufficient tact and ability to establish cooperative relationships with the homes of children, it may be possible to grant credits for work done in the home under the supervision of such a teacher, but full teaching service within the school can not be expected from a teacher so occupied, and under no circumstance is it recommended that credit be given for unobserved home work. Home practice of school exercises should be required and acquired proficiency should be recognized, but definite credit for unobserved home work is not conducive to either high-grade work or honest reports.

SUMMARY.

Adequate provision for training young girls and women necessitates:

- (1) Strong courses in home economics well organized and adapted to the varying needs of the students for whom these courses are designed.
- (2) An effective organization, of an adequate, well-prepared, liberally paid and not overworked instructional corps.
- (3) Kindly cooperation maintained between principals of schools, teachers of academic subjects, local organizations of citizens, business men, and the teaching force interested in home economics instruction.

- (4) Suitable, satisfactory sanitary rooms, modern and adequate equipment, correct adjustment of the business affairs of the department of home economics, and the correlation of the department of home economics with the activities of the child in her home.

PART III.

RECOMMENDATIONS.

INTRODUCTION.

It is assumed in the offering of the following recommendations that it is desired by the citizens of San Francisco that an adequate course in home economics be established in their schools—a course which will train the daughters of the city in the art of home-making and make of them women who are skilled in the use of their hands, intelligent in their choice of materials, appreciative of the beauty of orderliness and cleanliness, and awake to the financial and social responsibilities of women within the home.

Coast cities, with their large per cent of foreign-born, adult population, have peculiar burdens and responsibilities in transforming this great cosmopolitan group into an intelligent American citizenship. Such transformation can not be hastened unless the home life of the foreign workman be touched by American ideas of good living, sanitary dwellings, liberal educational opportunities, and social responsibilities. In the accomplishment of all these changes, there is no more potent means than a strongly organized, well-supported department of home economics.

SUGGESTED COURSES.

The school curriculum in San Francisco needs to be changed in order to make allowance for more time in home-economics subjects. This recommendation does not necessitate the sacrifice or elimination of any of the essential subjects, but requires the compression of some work into fewer hours and the adjustment of some to altered conditions.

New courses in home economics should be established. Sewing instruction and lessons giving information concerning simple house-keeping processes should be installed in all fifth-grade classes in the city of San Francisco. Food and sewing preparation should be given in all sixth, seventh, and eighth grade classes.

The inauguration of required high-school courses in home economics is needed in the Girls' High School, the Mission High School, and the Commerce High School. Reference has been made hereinbefore to the conditions in the Polytechnic High School. It is here recommended that a one-year course of home economics be required in all high schools now established in San Francisco and in all hereafter established.

This one year of required work should be equivalent to one full five-hour course; i. e., double periods for practical work and single periods for lectures and recitation. It should be a survey course, giving instruction in the furnishing and care of the house, planning and preparing meals, and in buying clothing, and making dresses and hats.

Advanced elective courses should be established in all high schools except those that are distinctly vocational.

San Francisco needs Saturday afternoon classes in the downtown districts for the great number of shop and office girls who are not employed at that time. It needs classes for mothers at the high schools just after the close of regular afternoon classes. Many women can easily attend such classes when they can not leave home at night. Night schools are needed for those who work during the day, and should be opened in various parts of the city in well-warmed, well-ventilated, and comfortable rooms where good equipment exists.

The home care of the sick should be taught in the upper grades of the elementary schools, with courses more strongly scientific offered as electives in the high schools.

Especial stress should be placed upon this phase of home economics in the extension courses for employed girls and home makers.

This instruction, while classified under home-economics teaching, need not be given by members of that staff, but may, with advantage, be given by the school nurses or by members of the city board of health.

Since many men on the Pacific coast spend considerable time in the mountains, or at sea, a simple knowledge of food values and food preparation is greatly needed by them. Where instruction in camp cookery has been offered to boys in other cities, it has been popular and of great value. Work of this kind can be given after school hours, in night classes, or on Saturdays. It is a type of instruction well-worth giving during the summer vacation and can easily be correlated with the Boy Scout work done in the city.

The courses of study in home economics used in San Francisco need to be revised, and to be so arranged that adjustment to peculiar community needs may become possible. The major courses should be so arranged that there may be established a logical sequence of lessons from the first lessons of grade five to the last lesson of the senior high school.

The special courses should be so planned that the peculiar conditions and needs of the student may be met and a predetermined result obtained.

See page 141, Part II, under Courses of Study, for a more complete discussion of this subject.

SUPERVISION OF HOME ECONOMICS.¹

Such courses as are above discussed are only possible of administration when there is one capable, responsible head of all home-economics instruction in the entire school system; hence, the director of home economics should be given authority and responsibility for the conduct of all home-economics instruction in the elementary and secondary schools and in classes for employed and adult women. To retain a woman of the type needed will necessitate a willingness to pay liberally for her services.

At least four assistant supervisors of home economics are needed in San Francisco. None of the above officers should be expected to teach except in times of emergency or when necessary to train properly a new and inexperienced teacher.

Clerical help should be supplied, so that no time of experts may be wasted upon labor more cheaply done by clerks.

To secure and retain really capable teachers of home economics, adequate salaries must be paid, opportunities for professional progress must be made available, and classes must be reduced in number of pupils enrolled. Those teachers who are selected for the responsible positions of instructors of children from foreign homes and children needing special instruction should receive greater pay and find time to acquaint themselves with the homes and families of the pupils.

¹ A questionnaire in regard to the supervision and teaching of home economics was sent to 25 home-economics women. Fourteen women answered, of whom 7 were university and college teachers in charge of teacher-training classes; 4 were supervisors of home economics in public-school systems; 1 was an ex-supervisor in a large city; 1 had served as public-school teacher, supervisor, and finally professor in charge of teacher-training courses; and 1 had been a teacher in a noted public-school system.

1. Should there be one supervisor of all home economics with an adequate number of assistant supervisors? Yes, 13. Doubtful, 1.
2. Should the supervisor nominate or recommend and the board appoint her assistants and teachers? Yes, 0.
3. Should she have full appointive power? Yes, 5.
4. In what grade should home-economics instruction be introduced--

Below the fourth grade?-----	Yes, 2
Fourth grade?-----	Yes, 7.
Fifth grade?-----	Yes, 4.
Sixth grade?-----	Yes, 1.
- All agreed that handwork of some kind should be given from the first grade up.
5. Would you introduce home economics in the same grade in all parts of the city? Yes, 3. No, 11.
6. Would you increase the amount of time devoted to home economics in cosmopolitan sections of a city? Yes, 13. No, 1.
7. Would you recommend cooking in family recipes in the grade classes? Yes, 14.
8. What do you consider the minimum time that should be given home economics? Answers vary from 90 minutes once a week to 90 minutes daily in the grades. All agree that three double laboratory periods and two recitation periods are desirable in high school.
9. What is the most desirable size for a class in home economics?

10 to 20-----	Yes, 9
10 to 15-----	Yes, 2
12 to 18-----	Yes, 2.
20 to 24-----	Yes, 1.
10. Do you approve of an apartment or practice house as an addition to the regular home-economic laboratories? Yes, 14.

IMPROVEMENT IN EQUIPMENT.

When knowledge of the part flies play in the spread of disease is so general, it seems strange that so many unscreened kitchens should be in use in the public schools of San Francisco. All such rooms should be screened immediately. In the newly constructed buildings, better provision should be made for ventilating the food laboratories. The present system of oiling down the dirt on the kitchen floors should not be longer permitted, and attractive, clean floors should be provided—such floors, as the children are taught to desire for their own homes. Hereafter, as the new buildings are constructed, the supervisor should be consulted both as to the location of the home-economics classrooms and as to plans and equipment for them. A food preparation room is badly situated when placed in the basement; it catches much dust and dirt, is difficult to ventilate properly, and the odors rise from it to other portions of the building. A room on the top floor of the building is for all reasons more desirable.

INTERMEDIATE SCHOOL SEWING ROOMS.

Of the sewing rooms in use in the three intermediate schools, the one in the Horace Mann School should be abandoned. It is in every way unsuitable and ill equipped. As elsewhere suggested, if this school were supplied with a practice house in which to teach home making, room could be arranged for the sewing classes.

The Hamilton School sewing room should be immediately equipped with electric lights, for which the building is wired, and enough sewing machines should be purchased to make effective teaching possible.

The Crocker sewing room was just occupied at the time of the visit of the survey commission and was receiving new machines and tables. This particular school receives many children from near-by "homes" and should be made more nearly like conditions in a good American home, and as far away from institutional conditions as possible. Small classes, individual instruction, sympathetic understanding, and homelike conditions are greatly needed by these children. A practice house is an immediate need.

New cooking rooms are most badly needed at Fairmount, Columbia, Grattan, McKinley, Rochambeau, and Yerba Buena Schools. Fairmount has 165 girls in the seventh and eighth grades. These, if given as much instruction in home economics as they should receive, will require all of the time of one teacher of food preparation and of one teacher of sewing. The James Lick pupils are numerous enough to use effectively the present equipment were the Fairmount students removed to a laboratory of their own.

A similar condition exists in other schools, and when the food-preparation instruction is extended downward to the sixth grades, other laboratories will be needed.

It is the consensus of opinion that each school should be complete in itself and that girls should not be sent from one school to another for portions of their instruction. If home economics were taught from the fifth grade through the eighth, as it should be, then each school would fully use one practice house, one food laboratory, and one sewing room. Especially would this be true if no class exceeded 20 pupils, which is agreed to be the maximum size possible where good instruction is given.

PRACTICE HOUSES.

The Spring Valley School, which is in an apartment-house region, has an excellent attic or top floor that could, with little expense, be partitioned and equipped as a small apartment. In this, instruction could be given in house furnishing and home care. The teachers' lunches prepared here would make possible preparation of food in quantities sufficient to establish standards for the girls doing the work. One-half day spent twice a week by a small group of girls would give them helpful knowledge of sewing under home conditions, care of the house, meal preparation, and laundering of household linens. While it is always undesirable for children to travel from one school to another, yet for a time this housekeeping center could be used by other near-by schools. Since this is a school having very large classes in the lower grades and very small classes in the seventh and eighth grade rooms, it is suggested that this special instruction be open to children of the fifth and sixth as well as the seventh and eighth grades.

The room at Pacific Heights is one of the worst used for cooking classes. It is long and narrow and reached by an outside stairway. It is over the boys' runway, which means that the floors are cold and damp. This room is one of several in which the children have to light the hot plates in order to warm their fingers enough to be able to write. This school needs a new laboratory for cooking and new equipment throughout. This is a locality in which a practice house would supply all present needs.

The Portola School neighborhood is one in which a practice house could easily be secured and would be of great service. This is a Jewish section and one in which the Jewish Council of Women stand ready to lend hearty cooperation, and with their aid such a practice home could be made of inestimable value to the community.

Bernal Heights School, with its old building where the kitchen is reached through the furnace room, should be immediately supplied with a small, clean, inexpensive practice house and new laboratories

for both sewing and food preparation. This is an American neighborhood where there are small frame dwellings. The practice house should be no better than the best that the people of the neighborhood could hope to attain and no more expensively furnished than the incomes of the families represented would justify, but it should be sanitary, convenient, and attractive. The instruction given should be thoroughly practical.

The Irving Scott School is another one in which there should be an immediate adaptation of instruction to the needs of the locality. There should be a housekeeping center constructed and housekeeping instruction given. In the low seventh grade there were 3 students 15 years of age, 4 who were 14, and 10 who were 13 years old. Girls of this age should be made proficient in simple home making and the school should supply this knowledge.

The three intermediate schools are all in need of practice houses. With these centers in which to begin this work it could be gradually developed until, in some form, it reached all the girls in the city, giving to each girl some actual knowledge of household administration, family meal service, and general housewifery.

These practice houses or apartments make the service of a noon lunch to teachers possible and afford opportunity for the students to have actual experience in the choice, purchase, and service of food in family-sized quantities.

A complete housekeeping suite can be provided for the Polytechnic High School with little expense. There is now a large room used for teaching home nursing, and adjoining this is a needlessly large storeroom. A bathroom is already furnished. One partition and one new door would change these into a complete apartment, with small kitchen, bedroom, bathroom, and dining-living room, and make meal service and housekeeping possible.

In the Girls' High School there are now rooms used as cloak rooms that could easily be converted into an apartment and a food laboratory.

The Mission High School needs immediate provision of rooms for sewing, food preparation, and housekeeping. The building now used is so overcrowded and the sewing room so insanitary and unsuitable that new rooms should be provided in some other building.

TOWEL SUPPLY

In order to insure sanitary conditions, all dish towels should be furnished by the school and paper towels should be in every laboratory.

There should be suitable basins and towels for the sewing class girls.

TEACHERS

With the recommended increase of time given to home-economics teaching, the present teachers of food preparation will be unable to handle all classes in this subject. It is also recommended that classes be reduced to 20 students; that new courses be organized for adult women and wage-earning women; that boys be given opportunities for lessons in camp cookery; and that the retarded girls be given especial attention in classes organized for them. All this means increased teaching force and increased expense, but if the girls of San Francisco are to be prepared for the proper discharge of their duties when they become wives, mothers, and homemakers, the city must pay the price.

Special teachers should be employed to give instruction in sewing to the seventh and eighth grade students and to teach the care of the home. If financial conditions make the employment of special teachers for all sewing impossible, then the sewing of the fifth and sixth grades can be given by room teachers or left to Lux students. These grade teachers will need special instructions, and to the extent that they assist in this teaching they should be considered a part of the home-economics department. Equipment will not be necessary for the sewing classes in the fifth and sixth grades during the first year.

This arrangement will leave whatever money is at present available to be used for bettering the conditions of cooking laboratories and for establishing housekeeping centers and seventh and eighth grade sewing rooms. During the year following, sewing rooms can be furnished with tables, chairs, and machines, and additional special teachers employed for the then seventh and eighth grade sewing classes; fifth and sixth grade students can be taught again by room teachers or Lux students, and by the third year conditions will be enough better so that more special teachers can be employed and more housekeeping centers developed, until at the end of the five years every child finishing the eighth grade will have become dexterous in handling cooking materials and equipment, skilled in sewing by hand and machine, and developed in efficiency to an extent that will make her able to prepare in reasonable time a plain but palatable meal, make a simple garment, care for a bedroom and sitting room, and give first aid to anyone injured or ill.

SCHOOL LUNCHES

The continued use of minute quantities of food is uninteresting to the child and has no real educational value. As stated by one successful supervisor of home economics, "after girls have shown pro-

iciency in the small recipe work, unless given more practical work, the interest is apt to become lost." "Outside criticism through sale of large quantity cooking (family quantity) is very stimulating and often puts the girls on their mettle through the responsibility given them."

Yet the other extreme—cooking for sale only—is quite as objectionable as limiting food work to very small quantities. No class should be forced to cook only that which is salable, nor should any class be excluded from tasting the product of its work. To adjust these matters perfectly is difficult, but not impossible, and effort to adjust them should not be abandoned merely because it requires extra effort upon the part of the teachers and administrative officers.

In every school where there is a food-preparation class, there should be provision for serving teachers' lunches by the students in the cookery classes. This is one of the few ways by which children can be taught to cook in family-sized quantities and to serve food nicely. That such a lunch is of advantage to the teachers, there can be no question. It is not impossible to so arrange class schedules that the class needing this instruction can have their work arranged to come immediately before the noon hours.

In certain schools the children are evidently underfed. Underfed children do not develop into valuable citizens. It is feasible to have the food preparation classes prepare inexpensive and nourishing foods and to have these sold to the children at small cost. The commission was impressed with the large number of children remaining around the school at noon, eating unattractive, inadequate lunches, or running to the near-by stores. It is quite possible that the parents of many of these children are away from home at noon. Other cities have found that school cafeterias and noon lunches for the children have had a marked effect upon the general health and vigor of those so fed.

It is true that school or teachers' lunches increase the cooking teacher's work and responsibility. Such increased work should be recognized either by slightly increased pay or shortened hours during the week. One afternoon free each week would equalize the burden.

BUSINESS METHODS.

The present method of purchasing equipment and supplies is a detriment to the home-economics division of the schools. Much better arrangement could be made if an expert were consulted and her plans accepted. The method of ordering and saying "or just as good" is sometimes amusing. A green plate to match a blue set may be "just as good," but far from satisfactory. The director of home economics should be able to select definite articles and on them

receive competitive bids and from the bids make her purchase, whether of food supplies or equipment. There are many times when food supplies bought near the schools would be more certainly received than by the present methods of purchase, and at the same time serve to establish a friendly relationship between the school and the local taxpaying storekeeper. A larger revolving fund is necessary, for the children must learn to purchase food supplies and the teachers must be able to buy certain perishable food materials in larger quantities.

COOPERATION WITH OTHER AGENCIES FOR SOCIAL BETTERMENT.

Since an effectively organized division of home economics is one agency for social betterment in the life of the city, there should be developed active cooperation between this work in the schools and other agencies for social betterment. The city board of health, Nurses' Association, Child Welfare League, Council of Jewish Women, Collegiate Alumnae, social settlements, and other organizations are all working for improving the living conditions of those whose homes are in the city of San Francisco, and their help is needed in developing home economics to its fullest community service.

The material for home economics instruction can never be included within the covers of textbooks as may that of arithmetic or spelling or history. The factories, the shops, and the markets of the city, even the streets with their newly laid systems for water supply, sewage pipes, and gas mains become laboratories for the child in home economics. When this is understood by the grocer, the butcher, the dry-goods merchant, and the dealer in household furnishings, all will be willing to do their share in educating the future house mother and will gladly instruct visiting classes in the art of buying to meet household needs. When this cooperation between tradesman and school is accomplished the education of the child will be greatly enriched and in time there will be a favorable reaction upon the trade conditions of the city.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

1. All courses in home economics need reorganization. Instruction in this subject should be given in the fifth grade, and logical sequence of lessons should be arranged for the fifth, sixth, seventh, and eighth grades, and the first year of the high school.
2. Sewing should be introduced in all seventh and eighth grade classes, and special teachers for this subject should be provided in these grades.
3. Sewing should be given in fifth and sixth grade classes by grade teachers or by Lux School students. Provision should be made for

giving grade teachers the preparation needed to enable them to teach sewing.

4. The teaching staff in home economics should be reorganized and placed under a director who should have control of home-economics work in the public schools of the city and the assistance of a group of not less than four competent supervisors.

5. The teaching staff in home economics should be increased and arrangements made for each teacher to have one afternoon each week for neighborhood work.

6. Teachers should be encouraged to take summer-school courses, and they should be able to do this without loss of salary.

7. Centers of training in housekeeping should be provided in a few carefully selected districts.

8. The number of night classes in home economics should be increased. Afternoon classes for women and Saturday afternoon classes for working girls should be opened. These courses should be open for a quarter, a half, or a full year, as may be found advisable at each place.

9. Methods of purchasing food supplies should be so changed that the director and teachers may make all purchases under general rules and regulations.

10. The director of home economics should purchase all equipment after bids are made and accepted.

11. Architects should consult the director of home economics before buildings in which home economics is to be taught are planned.

12. Provision should be made for permanent exhibits of home-economics work and for a traveling exhibit that can be taken from school to school.

13. The sewing rooms in intermediate schools are not adequately equipped. Lights should be installed in the sewing room in the Hamilton School and temporary quarters for home economics in the Horace Mann School should be constructed or rented at once until permanent quarters can be provided.

14. All food-preparation rooms now in use should be put in clean and sanitary condition by screening windows and door openings; by refinishing floors with a surface which can be kept clean; by replacing worn and antiquated equipment; by heating damp, cold rooms; and by supplying towels for use of students.

15. New centers should be equipped for teaching home economics, and practice houses should be provided in certain localities.

16. In the Polytechnic High School a small practice kitchen and dining room should be provided by putting in inexpensive partitions, and classes in household management should be organized.

17. In the Mission High School sewing should be taken from the insanitary places and sewing rooms. Food-preparation rooms and housekeeping rooms should be equipped elsewhere in the building.

18. In the Girls' High School, rooms on the first floor not now used to advantage would make satisfactory rooms for food preparation and housekeeping.

19. In the Commercial High School a sewing room, food-preparation room, and housekeeping suite should be equipped. If there is insufficient room in the building, a near-by practice suite or house should be rented or an inexpensive building should be put up.¹

20. In all schools now teaching food preparation and in all schools hereafter supplied with cooking equipment, teachers' luncheons should be prepared. Home-economics teachers should receive credit for time spent in the preparation of these luncheons.

21. The preparation of certain foods in quantities and the sale of the same should be permitted.

22. Cooking and sewing should be scheduled for the same morning in the seventh and eighth grade classes, so that work time may be exchanged.

23. Home-economics classes should not contain more than 20 students, and in cosmopolitan and special schools not more than 12 students.

24. Courses offered in the several schools should be varied to meet the needs of the locality in which given; that is, instruction should be adapted to the children's needs.

25. Cooperation between the home-economics departments of the public schools and the homes of the children, the business men of the city, and all organizations interested in the social betterment of the city of San Francisco should be encouraged.

¹ The theory that students may go to the Polytechnic High School does not work: and since the laboratories of this school are full, this theory need not be considered.

Chapter XIII.

MANUAL TRAINING.

The quality of the work done in manual training is good, so far as it goes. The very limited amount of money available appears to have been spent to good advantage, and the kinds of work undertaken can not be seriously criticized in view of controlling circumstances.

With the exception of a small amount of handwork in paper, cardboard, and other inexpensive materials, carried on for the most part without supervision or assistance by certain of the more energetic and progressive grade teachers, the work in manual training for boys in the elementary schools in San Francisco is limited to the seventh and eighth years in the regular grammar schools and to the sixth, seventh, and eighth years in the three intermediate schools.

I. TIME ALLOWANCE.

In January, 1912, a 12-page pamphlet was published, containing instructions for the regular classroom teachers in grades 1, 2, and 3, for "primary manual work." The time allowed for this work was given as one-half hour per week, but it was clearly indicated that the work was to be regarded as "busy work," more or less incidental to the real business of the school. The results secured under this plan are as good as can be expected under the circumstances, but are far from being the equivalent of what might be secured through the introduction of a systematic and well-organized scheme of handwork.

In the three intermediate schools sixth-grade boys are given one lesson per week, 80 minutes, of manual training; seventh-grade boys, two lessons per week, total 120 minutes; eighth-grade boys, one lesson per week, 80 minutes, for 20 weeks, and two lessons per week, total 160 minutes, for 20 weeks. This program provides a maximum possible aggregate of 213½ hours (less than 27 days of 8 hours each,) spread over a period of 3 years or about 9 days per year.

In the other elementary schools during the seventh and eighth years the time allowed for manual training is one lesson per week, varying in length from 60 to 120 minutes. At an average of 90 minutes per week the aggregate amount of time is 120 hours (15 days of 8 hours each), spread over a period of 2 years, or 7½ days per year.

When it is considered that even these small amounts of time are subject to curtailment through the observance of holidays and other interruptions, it is clear that maximum benefits from manual training in the elementary schools can not be realized.

2. LABORATORY EQUIPMENT.

The equipment for manual training in the sixth, seventh, and eighth grades consists of 27 shop centers for woodwork and 2 shops arranged for introductory courses in art metal work. These centers are located as follows:

Shop centers for woodwork (27): Crocker Intermediate School, 2; Hamilton Intermediate School, 2; Horace Mann Intermediate School, 2; Bay View School; Bryant School; Ethan Allen School; Everett School; Fairmount School; Franklin School; Frank McCoppin School; Glen Park School; Hancock School; Irving M. Scott School; John Swett School; Laguna Honda School; Mission Grammar School; Monroe School; Oriental School; Pacific Heights School; Roosevelt School; Sheridan School; Spring Valley School; Sutro School; Washington Grammar School.

Shop centers for metal work (2): Hamilton Intermediate School and Horace Mann Intermediate School.

The shops are fitted up with workbenches and a selection of tools adapted to the kinds of work that may be profitably undertaken with classes of boys in the time allowed. Some of the newer shops are better lighted and more adequately equipped than are some of the older ones. Any line of work that is sufficiently dignified and worth while to be undertaken in the schools at public expense should be assigned to quarters that are properly heated and lighted and otherwise adapted to conserving the health and comfort of teachers and pupils, and that are adequately equipped to accomplish the objects in view. These advantages can not be claimed for all of the manual-training shops in the San Francisco schools.

The manual-training staff is to be especially commended for voluntarily organizing several classes for selected groups of boys who are 12 years of age or over but are enrolled below the sixth grade. The valuable results of work of this kind with retarded pupils have been demonstrated repeatedly. This type of work should not only be encouraged and recognized, as recommended by the supervisor of manual training, but facilities should be provided which will make possible substantial extensions.

The supervisor of manual training reports that a motor and wood-turning speed lathe have recently been ordered for one of the intermediate-school shops. San Francisco has been very backward in providing even a minimum of power machinery for each important shop center.

8. THE COURSE OF STUDY.

The course of study, especially in the three intermediate schools, gives some attention to the construction of small working models of machines and transportation units, such as crane, pile driver, steam shovel, flat car, semaphore. For this part of the work a considerable variety of materials and processes is necessary, and considerable individual ingenuity is developed. For the most part, however, the projects undertaken consist of series of small objects for personal or domestic use, which call for a more or less carefully graduated sequence of tool processes. The aim in all cases is a useful product, and no unnecessary time appears to be spent upon exercise pieces merely for the sake of practice. Nevertheless, if more time could be given to the work some of the more inconsequential models might be supplanted by others that would prove more interesting as well as profitable.

A statement as to the aims and purposes of manual training, prepared by the supervisor, emphasizes the introduction to fundamental tools and processes as applied to woodwork. The effort is made to train pupils in habits of order, neatness, industry, perseverance, and economy. The aim is to present the work in such a way as to inculcate appreciation of good workmanship, construction, and design; to develop social feelings and relations by encouraging projects of value to home and school; to encourage the spirit of initiative, originality, and experimentation by permitting a wide latitude in selection of individual and personal projects. The use of other materials than wood is encouraged so far as possible.

These aims, which relate chiefly to the place of manual training in general education, are realized in most of the shops as well as can be expected under existing conditions. Provided unwarranted expectations are not entertained with respect to the extent to which the values of this training are carried over into other studies or other departments of life, these are commendable aims for manual training in the elementary school. But these aims are not sufficient. The department should be encouraged to look beyond these aims, at least for certain groups of pupils, and should be provided with better facilities and working conditions.

To a limited extent the prevocational aim receives some theoretical consideration in the intermediate schools, but not much more is accomplished in this direction here than in other schools. More flexibility, freedom of action, and willingness to experiment are necessary before notable results along this line can be expected.

4. ORGANIZATION.

The manual-training department consists of 1 supervisor, responsible to the superintendent of schools, and 17 men teachers. With the exception noted, instruction is limited to woodworking, mechanical drawing, and a few lessons in elementary metal work in copper and brass. The grades from which pupils are received are the eighth, the seventh, and the sixth (in the three intermediate schools), in addition to a few irregular classes of retarded pupils. The average salary of manual-training teachers in San Francisco is \$1,260 for the school year of approximately 40 weeks.

A part of the work in mechanical drawing is taught by women teachers, who are not under the direction of the supervisor of manual training. Some of this work is more or less unrelated to the conditions of practical shopwork in respect to content, method of teaching, and conception of purpose.

The elementary handwork in the primary grades is taught by the regular grade teachers, without supervision or assistance except such as an interested principal may give. The supervisor of manual training has no responsibility for this work nor for any manual training in the high schools.

5. THE MANUAL-TRAINING STAFF.

The following study is based upon information supplied by the members of the staff.

TRAINING AND EXPERIENCE

Of the 18 members of the staff 4 report having had no special schooling above high-school grade in preparation for their work of teaching. Of the remaining 14, 10 report having had some normal-school training, 8 having had two years or more; 7 have had some college or university work, 4 being graduates and 1 a postgraduate student; 4 have studied one or more years each at a technical or engineering school.

The 18 members of the staff have taught on an average 8.7 years each. Further study of the individual figures, however, shows two well-defined groups: (1) Eight men have had an average experience of 16 years each; (2) 8 men have had an average experience of 2.1 years each. The 2 remaining individuals have had an average of 6 years' experience each.

The staff, therefore, is made up of about equal parts of (1) experienced teachers who entered the service before the most significant current tendencies in manual-arts education were fully developed, who were, for the most part, without special professional prepara-

tion, and who, as appears hereafter, have not as a body made special effort to keep abreast of educational developments in their chosen field; and (2) a group of relatively inexperienced teachers, whose special training is not so extensive as might be demanded under a more liberal salary schedule, but who may be reasonably expected to represent the newer point of view in education. Like all similar generalizations, this must not be regarded as rigidly conclusive, for some of the most progressive members of the staff are to be found among those of mature experience, and not all of the younger members have yet demonstrated a thorough grasp of their work.

EXPERIENCE IN OTHER OCCUPATIONS.

Some indication of the latent possibilities for the development of vocational courses is disclosed by the record of experience in occupations other than teaching which members of the manual-training staff have had. Only 3 of the 18 men report no experience in other occupations, 7 have had experience in one other occupation, 4 in two occupations, 1 in three occupations, and 3 in four occupations other than teaching. The average number of years of experience in other occupations reported by 15 teachers is 10. The complete list includes 23 different occupations, and the length of time ranges from one-half year to 20 years. The occupations, with the number of individuals by whom reported, is as follows:

Assaying, 1; blacksmith, 1; bookkeeper, 1; bridge construction, 1; building construction, 3; business promoter, 1; business (not specified), 1; cabinetmaker, 2; carpenter, 4; contracting and real estate, 1; draftsman, 2; machinist, 1; manufacturing jeweler, 1; mason, 1; millman, 1; newspaper work, 1; pattern-maker, 1; plasterer, 1; salesman, 1; stationery and book store, 1; steam engineer, 1; trade (not specified), 1; wireless telegraph operator, 1.

TRAINING SINCE ENTERING THE SERVICE.

Evidently conditions in the San Francisco schools do not afford much stimulus or encouragement to professional growth on the part of teachers while in service. In response to the question, "What courses have you taken in normal school, college, university, correspondence schools, etc., for the purpose of improving your work, since entering the service of the San Francisco schools?" 10 of the 18 members of the manual-training staff report no such courses. Of the remaining 8, 1 has spent a year in a State normal school, 2 have taken summer-school courses, 2 have taken private lessons, 4 have taken correspondence courses, 2 have attended evening school, 1 attended a university extension course of lectures, and 1 reports home study. It must be admitted that this is not an impressive showing for a staff of 18 teachers reporting approximately an

average of 9 years' experience in a special subject which has been passing through an evolution truly remarkable. The importance of constant study and research in any line of educational work as a means of personal growth can scarcely be overemphasized. In the field of the manual arts the disposition to study the new problems and to endeavor to keep abreast of progress is indispensable.

PROFESSIONAL READING

In common with all the members of the teaching force in San Francisco the manual-training teachers were requested to "mention the titles of a few of the most important books on education which you have read during the past two years." In response to this request, 28 different books were reported as having been read by members of the manual-training staff. The titles of books reported, arranged in two groups, with the number of teachers by whom read, are as follows:

1. *Books on general educational topics:*

- McMurry—How to Study, 1.
- Smith—Teaching Mathematics, 1.
- Charters—Methods of Teaching, 1.
- Windt—Psychology, 1.
- Spencer—Education, 1.
- Kipling—The Day's Work, 1.
- Chancellor—School Administration, 1.
- Johnson—Plays and Games, 1.
- Sisson—Essentials of Character, 1.
- Rugh—Moral Education, 1.

2. *Books on the manual arts, vocational education, and related topics.*

- Bloomfield—Youth, School, and Vocation, 1.
- Vocational Guidance of Youth, 2.
- Readings in Vocational Guidance, 1.
- Puffer—Vocational Guidance, 1.
- Smith—Education of All the Children of All the People, 1.
- Dewey—School and Society, 3.
- Ritchey—Course in Woodworking, 2.
- King—Woodwork and Carpentry, 1.
- Rudd—Cabinetmaking and Designing, 1.
- Leake—Industrial Education, 2.
- Bachelder—Design in Theory and Practice, 1.
- Principles of Design, 1.
- Pabst—Handwork Instruction for Boys, 1.
- Crawshaw—Manual Arts for Vocational Ends, 1.
- Noyes—Design and Construction in Wood, 1.
- Wood and Forest, 1.
- Griffith—Correlated Courses, 1.
- (Author not known)—Period Styles, 1.

This does not represent a wide range of reading for 18 educators, nor can it be considered noteworthy concentration for 18 specialists. A study of the lists gives additional ground for the conclusion that

there has been no systematic guidance or stimulus to the professional growth of the members of the staff. Of the 18 members, 7 report no educational books read during two years; 2 teachers report having read one book each; 3 teachers, two books each; 4 teachers, three books each; 1 teacher, four books; and 1 teacher, 9 books. The total number of books read during the two years, including duplications, is 33, an average of 3 books each for the 11 teachers who report some reading, or less than 2 for each of the 18 members of the staff. Further, only 7 of the 18 teachers report having read any of the books in the second list, which contains the titles of those which are more or less closely related to the special problems of the department.

The teachers were also asked "What educational periodicals do you read regularly?" The replies to this question indicate a more commendable attitude of professional alertness and progressiveness. Of the 18 teachers, only 2 report the regular reading of 1 magazine only; 4 teachers read 2 magazines; 5 teachers read 3 magazines; 4 teachers read 4 magazines; 1 teacher read 5 magazines; and 2 teachers read 6 magazines. The aggregate number of magazines read, including duplications, is 58, an average of more than 3 per teacher. The titles include 15 different magazines and are given below arranged in two lists, together with the number of teachers by whom read:

- 1. General educational periodicals:*
 - National Geographic Magazine, 6
 - School and Society, 1.
 - Sierra Educational News, 7.
 - Teachers College Record, 1.
 - Western Journal of Education, 1.
- 2. Special or technical educational periodicals:*
 - Craftsman, 5
 - Forest Review, 1.
 - Furniture Manufacturer and Artisan, 4.
 - Industrial Arts Magazine, 4.
 - Manual Training Magazine, 11.
 - Popular Mechanics, 5.
 - Popular Science Monthly, 3.
 - School Arts Magazine, 6.
 - Scientific American, 2.
 - Technical World, 1.

Still further light is thrown on the question of the professional activities of the members of the manual-training staff by noting the reported memberships in educational organizations. Of the 18 teachers, 5 report that they are not members of any educational organization; 7 are members of 1 organization; 2 are members of 2 organizations, 2 are members of 3 organizations; 1 is connected with 4 different organizations; and 1 is connected with 6 dif-

ferent organizations. The aggregate number of memberships, including duplications, is 26, an average of two for each of the 13 teachers who report memberships. The list includes eight different organizations, and with the number of teachers reporting membership in each is as follows:

- National Education Association, 3.
- California State Teachers' Association, 9.
- California Council of Education, 1.
- California Schoolmasters' Club, 3.
- California Association of Applied Arts and Sciences, 3.
- Scholia Club, 1.
- Council No. 1 of Men Teachers, 5.
- California Vocational Guidance Association, 1.

RECOMMENDATIONS OFFERED BY THE STAFF.

That some members at least of the manual-training staff have given thoughtful consideration to the possibility of improvement in the quality of their work is indicated by the response to the request for suggestions as to ways in which the work of the department might be improved. Of the 18 members of the staff, 2 offered no suggestions. The remaining 16 men offered a total of 60 recommendations, an average of nearly 4 apiece. The list of recommendations, with the number of persons by whom made, is as follows:

I. Relating to organization and administration (31):

1. Increased time allowance for the manual arts, 6.
2. Extension of manual-arts work through the lower grades, 5.
3. Smaller classes, 5.
4. Better support from class teachers and principals, 4.
5. Higher salaries, 3.
6. Better classification of pupils according to ability to do the work, 2.
7. More frequent shop periods (now too far apart), 1.
8. Mechanical drawing taught by special teachers or by shop teachers, 1.
9. Mechanical drawing taught elsewhere than in the shop, 1.
10. School credit for manual training on a more equitable basis, 1.
11. More efficient examination of qualifications of shop teachers, 1.
12. Easier access to books and magazines relating to the work, 1.

II. Relating to course of study and methods (9):

1. Introduction of materials and processes other than woodwork, 3.
2. A progressive and more practical course of study, 3.
3. Supervision which will inspire boys through actual demonstrations, 1.
4. More emphasis on good design, 1.
5. Opportunity for more individual instruction, 1.

III. Relating to physical condition in the shops (20):

1. More and better equipment, 8.
 2. More liberal supply of materials, 6.
 3. Shop laboratories larger and better lighted, 5.
 4. Assistance in care and sharpening of tools, 1.
- No recommendations offered, 2.

Analysis of the suggestions offered shows that they may be grouped conveniently under three heads, relating to improvements in (1) organization and administration, (2) course of study and methods, (3) physical conditions. The weight of opinion on the part of the teachers themselves with respect to needed improvements in the plan of organization as it now exists, and in the actual working conditions that prevail in the shops, is impressive, and should appeal to the authorities as conclusive evidence that there has been neglect in not making use of the expert knowledge available within the school system. Practically every suggestion in the list is worthy of serious consideration.

SUMMARY.

The most significant impressions produced by this study of the manual-training staff may be briefly summarized as follows: (1) As is to be expected, there is a wide range of individual qualifications in respect to professional training and experience; nevertheless the staff represents two well-defined groups, including the older and the newer points of view, which, under efficient leadership, should make for that much-to-be-desired balance between the conservatism of experience and the enthusiasm of ambition. (2) In general, the staff is not characterized by breadth or thoroughness of special professional preparation for the work in manual training, or for the newly developing problems of vocational education and vocational guidance so closely related to the interests of this department. (3) With due allowance for individual merit, the staff as a whole is not conspicuous for professional zeal or active interest in the special educational problems of the department. (4) Collectively, the members of the staff represent a considerable fund of hitherto unutilized resources in practical experience in a variety of occupations, which may be drawn upon in the development of a program for vocational education and vocational guidance of the youth of San Francisco. (5) The character and extent of the suggestions looking toward the improvement of the work of the department, offered by the staff when given an opportunity, appear to fortify the conclusion that the relative lack of progressiveness and professional spirit noted is probably due in large part to working conditions within the system, which do not provide that encouragement to growth which is the reasonable duty of educational leadership.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

1. Time allotment.—The first need of the manual-training work in San Francisco is a conviction on the part of those in authority of the importance of the manual arts in education and a recognition of the

necessity for adequate provision for the work in all public elementary and high schools. The reorganization of the course of study recommended in other sections of this report is not an original or novel suggestion, but is in line with educational tendencies that have been clearly defined in this country for some years past. Such reorganization, when put into effect, will make possible the much-needed increased allotments of time for the manual arts.

In grades 1 to 6 not less than one-tenth to one-eighth of the present school time should be set aside for elementary handwork—that is, from two to three hours per week, divided up into from three to five periods according to program conditions.

In grades 7 and 8 (and 9, if the junior high-school plan be adopted) the manual arts should receive not less than one-fifth to one-fourth of the present school time, or five to seven hours weekly. The program should be flexible enough to provide an even larger proportion of time for this purpose, up to one-third or one-half, for groups of selected pupils under special conditions on an elective basis.

In all the high schools elective courses should be offered, in which the amounts of time assigned to the manual arts vary from none at all to one-half of the total school time, or even three-fourths for special groups. For further explanation, see the discussion of vocational courses elsewhere.

2. Extension of scope.—Steps should be taken immediately looking toward the extension of the work in the manual arts downward through all the grades in all the elementary schools and upward in all the high schools. The objective should be a well-organized and well-articulated scheme of handwork running through the entire system, incorporating the best features applicable to local conditions that have been developed by progressive cities, with lines of work of sufficient variety and scope to meet the approval of modern educational thought, and adapted to the capacities and needs of children at successive stages of growth. The work should connect up intimately and efficiently with the activities of the kindergarten and the training of the home, on the one side, and with the practical demands and actual conditions of the life careers into which young people go when they leave school, on the other.

3. New aims.—With the extension of the work throughout the entire system, and with more liberal allotments of time, there should be something more than merely an elaboration or multiplication of what is being done on the present basis. It should be expected that the entire school system will be affected by a new point of view, and in the manual-arts work there should become evident the inspiration of new aims and purposes.

The service rendered to children by the manual arts should not be limited exclusively to its contribution to general education even in the elementary school, though this may properly be the primary motive. So long as children are permitted to abandon permanently their birthright of school privileges at the immature age of 14 or even 16 years there can be no adequate defense of an educational policy that neglects the responsibility of offering in the school some rational preparation for the life struggle which these children are allowed to enter. At 14 or 16 years of age boys and girls are not qualified to appreciate the significance of the deprivation, or the severity of the handicap upon their future, involved in a termination of the period of formal schooling.

Unquestionably, therefore, beginning at the latest with the seventh year of school, the prevocational aim for most children, and the vocational aim for some children, should be given definite recognition in the public schools. While the influence of these aims should not be limited to the work in the manual arts, it is here that the most favorable conditions will be found for its expression and development.

By "prevocational aim" is understood the attempt to assist boys and girls to study their own capacities and the possibilities of their environment, to "find themselves," and to make an intelligent choice at the right time of a future career based upon some adequate understanding of these considerations, instead of drifting helplessly into whatever chance and ignorance may offer.

The "vocational aim" will be served by any course or line of activity which may be carried on in the school or which may be encouraged elsewhere under the supervision of the school that assists boys and girls to make some progress in preparation for an occupation that is definitely looked forward to.

4. New lines of work.—If the increased allotment of time is to be justified, and if the proposed aims are to be realized even in part, the introduction of a greater variety in shop equipment, processes, and materials is essential.

The work in the first four years should be adapted as closely as possible to the requirements of the reorganized course of study and should involve the manipulation of materials and processes in paper and cardboard, textiles, basketry, weaving, and drawing. Beginning with the fifth year the lines of work may well diverge with the varying interests of boys and girls, and for the boys should include opportunities for work in thin wood and elementary processes in bookbinding, printing, clay, cement, plaster, and such other groups as further study of conditions may indicate. In the seventh and eighth years the boys should carry still further the problems in printing and bookbinding, and to these should be added suitable work in copper, brass, iron, leather, cement and concrete, electricity,

bench work in wood, and mechanical drawing. The woodwork might well include some simple framing and carpentry. All of the shopwork should be made as practical as possible. The corresponding work for girls is discussed elsewhere in this report.

More systematic and determined effort should be made to study and provide for the needs of special groups of children, such as those who are for any reason retarded in physical or intellectual development or in their progress through the grades.

With the increase in amount of time available, it will be possible to devote a sufficient amount of attention to mechanical drawing in the elementary schools to insure to all boys the ability to make and read simple working drawings and to provide for a few an introduction to the elements of architectural or machine drafting. All of the mechanical drawing should be practical in character and in accordance with approved standards of draftsmanship. This work should be under the direction of the supervisor of manual training and taught by shop teachers or by teachers who are familiar with shop conditions and who keep in close contact with the school shopwork.

5. Equipment.—The equipment and arrangement of the shops under the new régime will need to be somewhat different from those of the usual shop center at present. The type of shop that has existed in the past has developed under the influence of traditional school ideals of class units and rigid programs, and while there has been much more freedom and flexibility in the shop than in the usual classroom, it has become evident that there is need of still further provision for these desirable conditions.

The new type of shop is conceived of as a laboratory in which real problems may be considered and solved by the pupils. Such problems may frequently involve other processes than those found in woodworking; consequently it is desirable to provide equipment in sufficient variety to prevent the work from being confined to too narrow lines. The transformation in shops and equipment should be brought about gradually, as teachers prepare themselves for dealing with the new conditions, since nothing would be gained by adding tools or materials which teachers are not qualified to use advantageously and efficiently.

It is not necessary for the accomplishment of the ends in view that all of the desired lines of work be carried on in any one shop, though a considerable variety of work may be thus provided for. The object in view is to provide pupils with as wide a range of useful experiences as may be practicable, and undoubtedly this may be accomplished in various ways.

6. Course of study.—It will be noted that the suggestions made herein contemplate changes more radical than merely the addition

of new kinds of manipulative processes with new materials. It is intended that more emphasis shall be placed upon problems in the manual arts which require constructive thought on the part of the pupil and which stimulate the development of ingenuity and initiative in dealing with new situations, which insure the formation of correct habits of technic and craftsmanship, and which provide situations demanding cooperative effort in which the students work together in groups on a single project. Too often school training has tended to repress independence and resourcefulness in the child and to discourage the cooperative spirit, through the teacher's preliminary analysis of processes and through refinement in details of directions for procedure. These faults in method have often necessarily resulted from the teacher being overburdened with responsibility for too many pupils, and from the utterly inadequate amount of time available.

To conduct a manual-training department on the basis of providing problems which are to be solved by the pupils instead of by the teacher is much more difficult than the outlining of "courses" of models or exercises. Nevertheless, it is an ideal toward which public-school work in the manual arts is tending, and as an ideal it has the advantage of representing a type of work that involves the maximum amount of interest and profit for both teacher and pupil.

At the same time, supervisor and instructor must not be permitted to lose sight of the value, to both teacher and pupil, of careful analysis of every individual problem, and of definite and orderly progression in the year's work. Too much enthusiasm for the freedom and fascination of the "practical-problem" method of work, unrestrained by insistence upon thoughtful analysis and systematic procedure, can not be expected to produce results of educational value commensurate with the amount of energy displayed. The best teachers will be found to depend much on the analysis of each problem into its successive steps, and a study of the history of manual training will show that the content value, or educational value, comes only after such analysis has been made, or in the process of making it. For this reason, successful teachers endeavor to have the work of analyzing the problem done by the pupil so far as possible, though they recognize that in the earlier stages it must necessarily be done by the teacher.

7. Supervision.—The adoption of the recommendations made herein will involve a new type of supervision as well as a new type of teaching. Not only will many of the regular grade teachers need practical assistance and sympathetic guidance in the introduction of lines of work for which they have had no systematic preparation, but some even of the shop teachers will feel the need of supplementing their training in various particulars. The new supervision will necessarily take the form of training for teachers in service, directing

their reading and study, providing for conferences to deal with special problems, demonstration lessons, and other specific helps. It should also insure continuous and systematic study of the work of the department, including its relation to other departments of the school system, with the view to maintaining a progressive spirit and increased efficiency.

In order to secure satisfactory results, provision should be made for a limited period, for special study classes for teachers during school hours.

8. *Organization.*—It is recommended that under one deputy superintendent of schools there shall be centered responsibility for all activities in the manual arts (drawing and design, elementary handwork, home economics, shopwork, mechanical drawing), vocational guidance, and vocational education in elementary and high schools. Under the immediate direction of this deputy superintendent, who should have had special training and experience for the work, there should be grouped a staff of specially qualified directors of special subjects, including at least the following: (a) Fine arts—free-hand drawing and design; (b) home economics; (c) manual training; (d) vocational education, including vocational guidance. Each of these supervisors should be responsible for the work specified in the upper grades and the high schools. All of these lines of work, so far as they are carried on in grades 1 to 4, should be placed under the direction of a capable supervisor of primary grades.

In certain cases assistants to these supervisors will be required, to divide the work upon some practicable basis, either (a) horizontally, as an assistant supervisor of manual training for grades 5 to 8, and another for the high schools; or (b) vertically, as an assistant supervisor of cooking and food work, and another for sewing and textiles; or (c) territorially, dividing the city into two or more districts, with an assistant supervisor for a given line of work responsible for the activities in each district.

Provision should be made for the payment of higher salaries than those that now prevail for teachers and supervisors of the special subjects. Other cities have in the past attracted capable and progressive teachers away from San Francisco by offering more remuneration and better working conditions, and will continue to do so, so long as existing schedules are maintained.

Promotion should be based on performance of meritorious service rather than on length of service. Teachers should be expected to give evidence of growth in service, and of continuous study of the many problems connected with the newer conceptions and ideals of education which are now in process of evolution, and in the development of which their special contributions are so much needed.

Chapter XIV.

VOCATIONAL EDUCATION.

The fact that there is a real demand for vocational education in San Francisco is shown by the existence of not fewer than 164 schools not under the control of the city school system, of which number at least 106 offer courses that are more or less definitely vocational in character. (See Table 155.) The existence of a large number of privately managed schools is in itself a reflection on the adequacy and efficiency of a public-school system. The fact that there is a large number of private vocational schools not only shows a neglect of important groups of educational needs, but raises the question of the consequences of permitting private enterprise to engage in the business of supplying these needs.

TABLE 155.—*Educational institutions in San Francisco not under the control of the city public-school system.*

1. GENERAL.

NOTE.—In this list are included schools offering courses the primary object of which is general education.

1. Academy of the Immaculate Conception, 1212 Guerrero Street.
2. Academy of the Sacred Heart, 2700 Jackson Street.
3. Anglo-Japanese Training School, 1350-63 Pine Street.
4. Ashbury Heights Academy, 881 Ashbury Street.
5. Baldwin's (Miss) Montessori School, 3445 Washington Street.
6. Bible College, 1975 Post Street.
7. Brackett's Academy, 1221 Cole Street.
8. Briscoe College, 759 Howard Street.
9. California Academy of Sciences (museum and lectures), Golden Gate Park.
10. Chinese Catholic Mission for Children, 1195 Stockton Street.
11. College of Notre Dame, 345 Dolores Street.
12. Convent of the Holy Name (St. Joseph's Girls' School), Howard and Tenth Streets.
13. Convent of the Immaculate Conception, Guerrero and Twenty-fourth Streets.
14. Dennis College, 908 Market Street.
15. Hamlin School, 2230 Pacific Avenue.
16. Kingdom of Heaven School, 1163 Golden Gate Avenue.
17. Kramer School, 701 Seventh Avenue.
18. Lyceum Preparatory School, Phelan Building.
19. Mechanics Institute (library and lectures), 55 Post Street.
20. Mission Dolores Parish School, Sixteenth and Church Streets.

21. Montessori Open-air School, 3576 California Street.
22. Outdoor School, Nineteenth Avenue and Wawona Street.
23. Pacific-English Preparatory School, 864 Pacific Building.
24. Potter School for Boys, 1827 Pacific Avenue.
25. Presentation Convent, 401 Baker Street.
26. Presentation Convent, 1404 Mason Street.
27. Randall School, Shreve Building.
28. Raymond School, 2700 California Street.
29. Sacred Heart College, Ellis and Franklin Streets.
30. Sacred Heart School, 735 Fell Street.
31. Sacred Heart School, 940 Hayes Street.
32. San Francisco University School for Boys, California and Buchanan Streets.
33. Sisters of the Presentation School, 281 Masonic Street.
34. St. Agnes Presentation Academy, 545 Ashbury Street.
35. St. Anthony's Catholic School, 3215 Army Street.
36. St. Boniface's Parochial School, 133 Golden Gate Avenue.
37. St. Brigid's School, Broadway and Van Ness Avenue.
38. St. Francis Convent, Central Avenue and Waller Street.
39. St. Francis Girls' Directory, Buena Vista and Central Avenues.
40. St. Francis Presentation Convent, Pacific and Mason Streets.
41. St. Francis School for Boys, Sixteenth and Church Streets.
42. St. Ignatius High School, 2211 Hayes Street.
43. St. James Catholic School, Fair Oaks and Twenty-third Streets.
44. St. John's German and English Day School, 3130 Twenty-second Street.
45. St. John's Parochial School, Sixty-first and St. Mary's Streets.
46. St. Joseph's School, Divisadero and Greenwich Streets.
47. St. Joseph's Boys' School, 250 Tenth Street.
48. St. Paul's School, Twenty-ninth and Church Streets.
49. St. Paulus School, Gough and Eddy Streets.
50. St. Peter's Convent School, Alabama and Twenty-fourth Streets.
51. St. Peter's Boys' School, Alabama Street, between Twenty-fourth and Twenty-fifth Streets.
52. St. Rose Academy, Pierce and Pine Streets.
53. St. Theresa's Parochial School, Nineteenth Street and Pennsylvania Avenue.
54. Star of the Sea Convent, 252 Tenth Avenue.
55. Star of the Sea School, Ninth Avenue and Geary Street.
56. Trinity School, 846 Stanyan Street.
57. West's (Miss) School, 126 Twentieth Avenue.
58. Zion's Day School, A Street and Ninth Avenue.

2. SPECIAL.

NOTE.—In this list are included schools offering various types of special courses, such as special training in languages, home making, arts, music, fine arts, technical and professional courses. Each of these institutions offers one or more courses with the expectation that the training given will have vocational value for students who enroll with that object in view.

1. American School of Music, 988 Hayes Street.
2. Arrilaga Musical College, 2315 Jackson Street.
3. Bassett Institute (for cure of speech defects), Nevada Bank Building.
4. Beringer Conservatory of Music, 920 Pierce Street.
5. Best's Art School, 1625 California Street.
6. Bon Ton School of Millinery, 908 Market Street.
7. Burke's (Miss) School, 2310 Broderick Street.
8. Business Men's Law College, Mills Building.
9. California Academy of Dramatic Art, 876 Sutter Street.

10. California Barber College, 145 Third Street.
11. California Chiropractic College, Grant Building.
12. California College of Chiropody, 980 McAllister Street.
13. California College of Optometry, 948 Market Street.
14. California College and Conservatory of Music, 1500 Gough Street.
15. California School of Fine Arts, California and Mason Streets.
16. California School of Hairdressing, 967 Market Street.
17. California School of Mechanical Arts, Sixteenth and Utah Streets.
18. Carpenter School of Shorthand, Typing and Spanish, 68 Post Street.
19. Chicago Business College, 2416 Mission Street.
20. Christensen's Navigation School, 263 Market Street.
21. Christian Brothers College, 925 Franklin Street.
22. Christofferson Aircraft Manufacturing Co. School, Redwood City.
23. Church Divinity School, 1051 Taylor Street.
24. Cogswell's Polytechnic College, Twenty-sixth and Folsom Streets.
25. College of Accounting, 1930 Van Ness Avenue.
26. College of Law, Grant Building.
27. College of Physicians and Surgeons, 344 Fourteenth Street.
28. Cortina Academy of Languages, Hearst Building, Market and Third Streets.
29. Cotton Studio of Expression, 101 Callaghan Building.
30. Drew's Coaching School, 2901 California Street.
31. Dudley's Business College, Sixteenth, near Valencia Street.
32. Ecole Parisienne, 1709 Gary Street.
33. Expert Shorthand School, Chronicle Building.
34. Gallagher-Marsh Business College, 1256 Market Street.
35. Genns Academy of Music, 2312 Clay Street.
36. George School of Languages (Berlitz system), 2531 Washington Street.
37. Gerson Dramatic School, 210 McAllister Street.
38. Gordon-Detwiler Institute, Kohler and Chase Building.
39. Gregory School of Music, 1455 Sacramento Street.
40. Hahnemann Medical College of the Pacific, Sacramento and Maple Streets.
41. Hastings College of Law, Pacific Building.
42. Heald's Engineering and Automobile School, 1220 Post Street.
43. Heald's Business College, 1215 Van Ness Avenue.
44. Hiles Watchmaking and Engraving School, 717 Market Street.
45. Hyams Penmanship and Engraving School, 610 Pacific Building.
46. International Correspondence Schools, Humboldt Bank Building.
47. Kellar-Fox Conservatory of Music, 62 Baker Street.
48. Kent Law School, Phelan Building.
49. Larcher and Moe School of Languages, 162 Post Street.
50. Larcher School, 180 Sutter Street.
51. La Salle Extension University, Hearst Building.
52. Lick School of Mechanical Arts, Sixteenth and Utah Streets.
53. Lux School of Industrial Training, Seventeenth and Hampshire Streets.
54. McDowell School of Dressmaking and Millinery, 121 Geary Street.
55. Merrill-Miller Business College, 733 Fillmore Street.
56. Modern School of Business and Correspondence, 525 Market Street.
57. Moler Barber School, 710 Howard Street.
58. Munson School for Private Secretaries, 150 Post Street.
59. National Conservatory of Music, Phelan Building.
60. National Salesmen's Training Association, Phelan Building.
61. Pacific College of Law, 681 Market Street.
62. People's Place and Social Settlement, 555 Chestnut Street.
63. Pittman Shorthand Studio, Hearst Building.

64. Raymond Coaching School, 2650 California Street.
65. Roth Memory Institute, Pacific Building.
66. San Francisco Business College, 908 Market Street.
67. San Francisco Law School, 126 Post Street.
68. San Francisco National Training School and Deaconess School, 120 Haight Street.
69. San Francisco Polyclinic and Postgraduate School, 1535 Jackson Street.
70. San Francisco School of Expression, 2127 Broderick Street.
71. San Francisco School of Hairdressing, 2006 Fillmore Street.
72. San Francisco School of Show Card Writing, 915 Van Ness Avenue.
73. San Francisco Veterinary College, 1818 Market Street.
74. School of Accounts of San Francisco, 995 Market Street.
75. Southern's Stagecraft Studio, 628 Cole Street.
76. St. Ignatius University, 2211 Hayes Street.
77. St. Peter's Academy, 1245 Alabama Street.
78. St. Vincent School and Business College, Fifth and Clementina Streets.
79. Standard Commercial School, 126 Post Street.
80. Stanford University Medical School, Sacramento and Webster Streets.
81. Success Commercial Academy, 935 Buena Vista Avenue.
82. Taylor's Nautical School, 510 Battery Street.
83. Vienna Dressmaking and Millinery School, 177 Post Street.
84. Western School of Cartooning, Phelan Building.
85. Wilmerding School of Industrial Arts, Seventeenth and Utah Streets.
86. Young Men's Christian Association, 220 Golden Gate Avenue.
87. Young Men's Hebrew Association, 1562 Ellis Street.
88. Young Women's Christian Association, 1249 O'Farrell Street.

STATE INSTITUTIONS.

89. California State Normal School, Waller and Buchanan Streets.
90. University of California College of Dentistry, Arguello and Parnassus Streets.
91. University of California College of Pharmacy, Arguello and Parnassus Streets.
92. University of California Extension Division, Lick Building, 62 Post Street.
93. University of California Medical School, Second Avenue and Parnassus Street.

TRAINING SCHOOLS FOR NURSES.

94. Children's Hospital, 3700 California Street.
95. City and County Hospital, Potrero Avenue, between Twenty-first and Twenty-third Streets.
96. German Hospital, Fourteenth and Noe Streets.
97. Hahnemann Hospital, California and Maple Streets.
98. Lane Hospital, Webster and Clay Streets.
99. McNutt Hospital, Pine and Hyde Streets.
100. Mount Zion Hospital, Post and Scott Streets.
101. St. Francis Hospital, Bush and Hyde Streets.
102. St. Luke's Hospital, Twenty-seventh and Valencia Streets.
103. St. Mary's Hospital, Stanyan and Hayes Streets.
104. St. Winifred's Hospital, 1065 Sutter Street.
105. Union Labor Hospital, 1055 Pine Street.
106. University of California Hospital, Second and Parnassus Avenues.

One approach to the problem is through a study of the occupations of the people. Table 156 shows the distribution of persons engaged in gainful occupation, by age periods, comparing California with the United States as a whole. (See also fig. 69.)

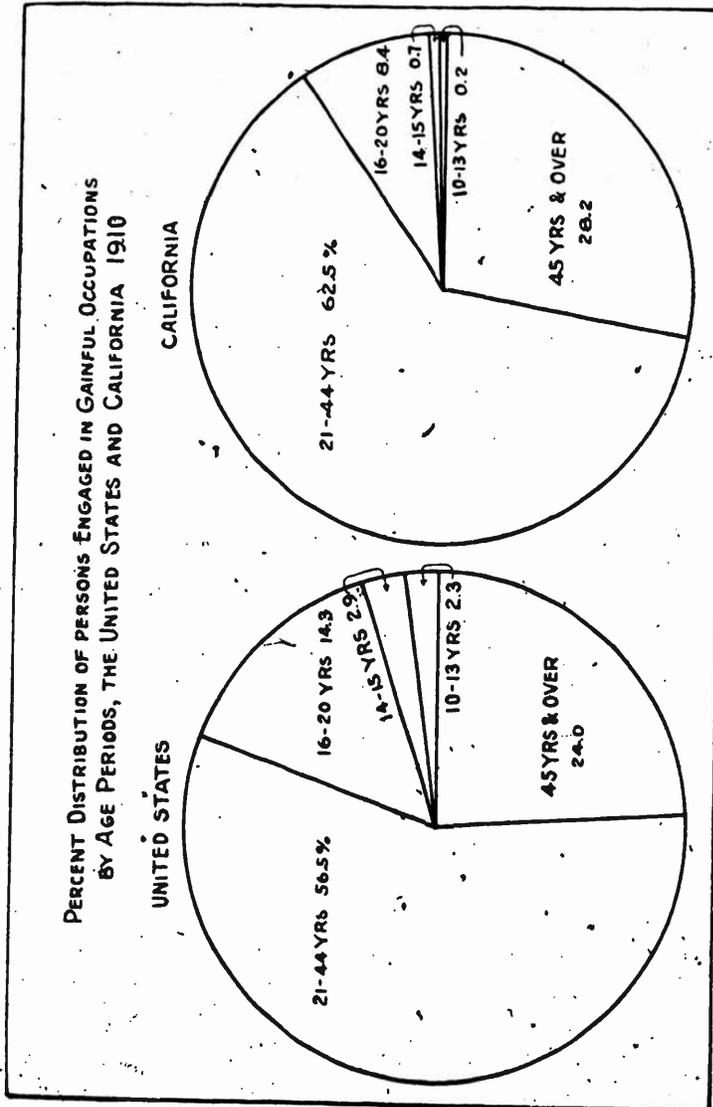


FIG. 69.—In 1910 less than 1 per cent of employed workers in California were under 16 years of age, as compared with 5.2 per cent in the United States as a whole. The percentage is much smaller also in the period 16 to 20 years of age. The problem of the immature worker is not so pressing in California as it is elsewhere.

TABLE 156.—Per cent distribution of persons engaged in gainful occupations by age periods, the United States and California, 1910.

Age period.	United States.	California
10 years and over.....	100.0	100.0
10 to 13 years.....	2.3	0.3
14 to 15 years.....	2.9	.7
16 to 20 years.....	14.3	8.4
21 to 44 years.....	56.5	62.8
45 years and over.....	24.0	28.2

* Includes persons of unknown age.

From this table it appears that less than 1 per cent of the workers in California are under 16 years of age, as compared with 5.2 per cent in the United States. The percentage is much smaller also in the period 16 to 20 years of age, whereas in the 21 to 44 years period the percentage is 62.5 for California and 56.5 for the United States. The problem of the immature worker is, therefore, not so pressing in California as it is elsewhere.

Table 157 shows the ranking of the more important industries of San Francisco in 1909 and in 1904, and indicates to a certain extent the diversity to be found in these industries. A comparison of the relative rankings of these industries at the two dates shows that no one of these groups of industries predominates.

TABLE 157.—Ranking of the more important industries in San Francisco, 1904 and 1909.

Rank.	1909	1904
First.....	Printing, publishing.....	Sugar, refining.
Second.....	Sugar, refining.....	Printing, publishing.
Third.....	Slaughtering, meat packing.....	Foundry and machine-shop products.
Fourth.....	Foundry and machine-shop products.	Slaughtering, meat packing.
Fifth.....	Bread and other baking products.....	Shipbuilding, boat building.
Sixth.....	Coffee and spice, roasting, grinding.....	Bread and other bakery products.

Table 158 suggests still further the diversity of industrial interests, and shows that San Francisco has a large number of establishments having a relatively small average number of wage earners.

TABLE 158.—Rank of San Francisco among the 75 cities leading in manufacturing industries, as measured by value of products, 1909.

Rank:

- 11 in population.
- 11 in number of establishments.
- 21 in number of wage earners.
- 16 in value of products.
- 15 in value added by manufacture.

PROBABLE VOCATIONAL OPPORTUNITIES

The survey commission was unable to secure definite figures concerning the distribution of persons engaged in gainful occupations in San Francisco later than those of the census reports of 1910. The figures for 1910, comparing San Francisco with the State of California and with the United States as a whole, are presented in Table 159. (See also Fig. 70.)

TABLE 159.—Distribution of persons 10 years of age and over engaged in gainful occupations; the United States, California, and San Francisco compared, 1910.

	United States.		California.		San Francisco.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total population.....	91,972,266		2,377,549		416,612	
Population 10 years of age or over.....	71,580,370		2,007,698		362,826	
Number of persons engaged in gainful occupations.....	38,167,336		1,107,668		223,713	
Percent of population 10 years of age and over engaged in gainful occupations.....		53.2		55.2		61.6
Agriculture, forestry, animal husbandry.....	12,630,203	33.2	225,071	20.3	3,422	1.5
Extraction of minerals.....	961,824	2.5	31,298	2.8	1,052	.5
Manufacturing and mechanical industries.....	10,638,881	27.9	203,576	18.5	71,112	31.9
Transportation.....	2,607,671	6.9	101,203	9.4	26,946	12.1
Trade.....	3,614,670	9.5	151,598	13.7	38,540	17.3
Public service (not otherwise classified).....	450,201	1.2	24,476	2.2	10,432	4.6
Professional service.....	1,663,560	4.4	69,453	6.3	13,825	6.2
Domestic and personal service.....	3,772,174	9.9	140,132	12.7	36,818	16.5
Clerical occupations.....	1,737,053	4.6	67,751	6.1	21,577	9.6
All gainful occupations.....	38,167,336	100.0	1,107,668	100.0	223,713	100.0

TABLE 160.—Per cent distribution of persons engaged in gainful occupations; San Francisco compared with the United States as a whole, and with 9 cities having a population of 300,000 to 500,000, in 1910. (See figures 70 and 71.)

Occupation group.	Per cent in each group of occupations.		
	Nine cities.	United States.	San Francisco.
Agriculture, forestry, and animal husbandry.....	1.0	33.2	1.5
Mining (extraction of minerals).....	.2	2.5	.5
Manufacturing and mechanical industries.....	42.0	27.9	31.9
Transportation.....	8.0	6.9	12.1
Trade.....	15.3	9.5	17.3
Public service.....	2.1	1.2	4.6
Professional.....	5.7	4.4	6.2
Domestic and personal service.....	14.6	9.9	16.5
Clerical.....	10.0	4.6	9.6
Total.....	100.0	100.0	100.0

The first point to be noted in a study of this table is the fact that the proportion of the population 10 years of age and over engaged in gainful occupations in San Francisco, 61.6 per cent, is more than one-tenth greater than for the State of California, 55.2 per cent, and

nearly one-fifth greater than for the United States as a whole. 53.2 per cent.

In considering the distribution among the general divisions of occupations, it is observed that:

1. The divisions of "Agriculture, forestry, and animal husbandry" and "extraction of minerals" are of relatively slight importance in San Francisco; 1.5 and 0.5 per cent, respectively.

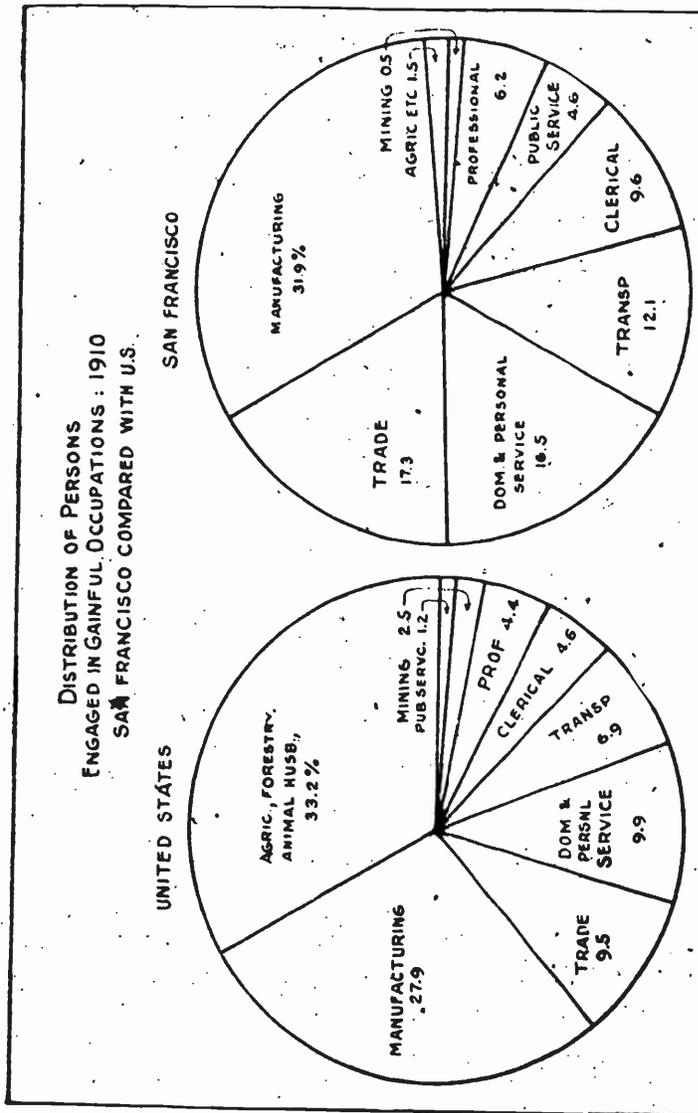


FIG. 70.—Comparing San Francisco with the United States, the agricultural and mining groups of occupations are of relatively slight importance in San Francisco, as is to be expected. The trade, domestic and personal service, transportation, clerical, and public-service groups are much greater in San Francisco—nearly double the proportions obtaining in the country as a whole.

2. The proportion engaged in manufacturing and the mechanical industries, 31.9 per cent in San Francisco, is 20 per cent greater than in the State of California, 26.5 per cent, and 12½ per cent greater than in the United States as a whole, 27.9 per cent.

3. The proportions engaged in transportation and in trade, in San Francisco, are nearly one-third greater than in the State, and nearly twice as great as in the United States as a whole.

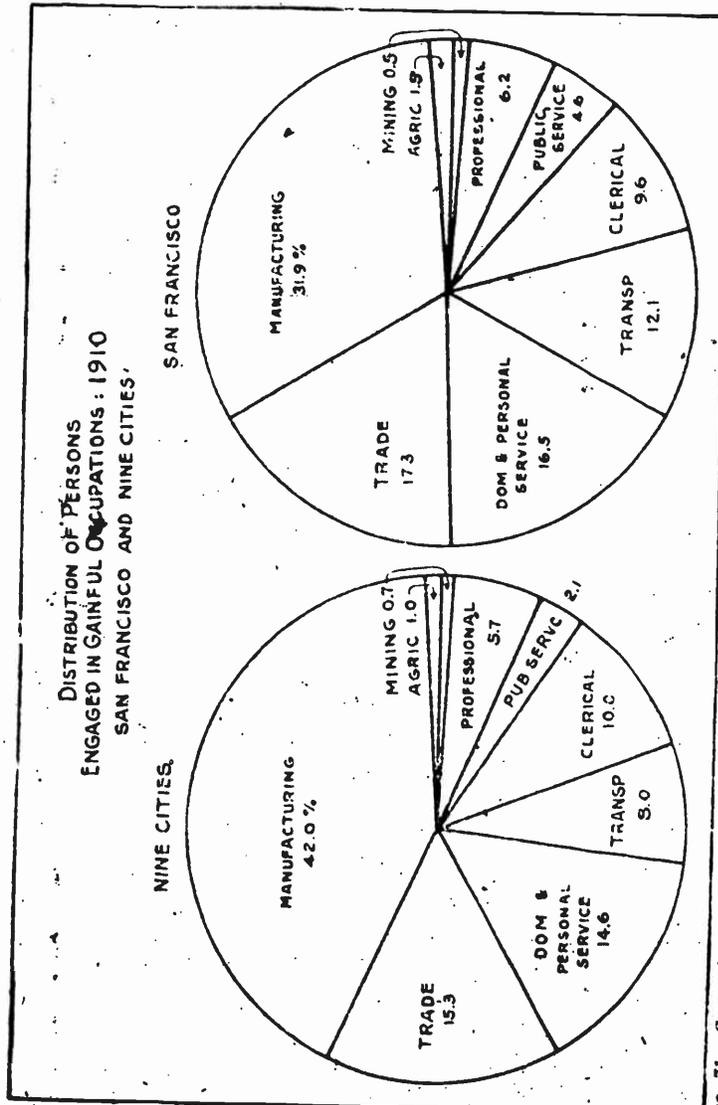


FIG. 71.—Comparing San Francisco, with the nine other cities in the same population, class 1380,000 to 500,000 in 1910, the greatest differences are found in the public service and transportation groups of occupations. However, there appear to be no differences in distribution sufficient to suggest the existence of special problems in San Francisco.

4. The proportion engaged in public service in San Francisco, while not large, 4.6 per cent, is more than twice as great as in the State, 2.2, and nearly four times as great as in the United States as a whole, 1.2 per cent.

5. The proportion engaged in professional pursuits in San Francisco, 6.2 per cent, is approximately the same as in the State, 6.3 per cent, and somewhat greater than in the United States as a whole, 4.4 per cent.

6. The proportion engaged in domestic and personal service in San Francisco, 16.5 per cent, is nearly one-third greater than in the State, 12.7 per cent, and nearly twice as great as in the United States as a whole, 9.9 per cent.

7. The proportion engaged in clerical occupations in San Francisco, 9.6 per cent, is more than one-half greater than in the State, 6.1 per cent, and more than twice as great as in the United States as a whole, 4.6 per cent.

The number of persons engaged in manufacturing and mechanical industries, transportation, and trade, was 136,557 in San Francisco, or 61.3 per cent of the total. It is these groups of occupations, therefore, that give character to the vocational life of the city.

It is not to be assumed that the youth is limited in his choice of opportunity to those occupations found in the city of San Francisco, or even to those found in the State of California. But, since these vocations are the ones about which the most information is available, and the ones in which opportunities for a start in life are most likely to present themselves, it is important to study the vocations as actually followed in San Francisco. The figures are analyzed still further in Table 161.

TABLE 161.—Occupations in California in which 1,000 or more persons are engaged, and number of persons engaged in each, in California and in San Francisco in 1910.

	Male.		Female.	
	California.	San Francisco.	California.	San Francisco.
Total population.....	1,322,978	276,901	1,051,570	180,011
Population 14 years of age and over.....	1,135,489	209,513	872,309	153,313
Number of persons engaged in gainful occupations: <i>All occupations.</i>	332,752	182,563	174,916	41,150
<i>Agriculture, forestry, animal husbandry.....</i>	217,718	3,366	7,323	60
Dairy farmers.....	4,467	34	140	4
Dairy farm laborers.....	5,669	109	181	3
Farmers.....	56,774	147	2,805	8
Farm laborers.....	83,129	448	2,071	13
Farm, etc., foremen.....	2,744	17	81	1
Fishermen, oystermen.....	3,780	1,391	13	1
Gardeners, florists, nurserymen, fruit growers.....	17,713	301	912	14
Garden, etc., laborers.....	21,646	691	653	9
Lumbermen, raftsmen, wood choppers.....	8,848	40	4	.....
Stock hunters, drovers, feeders.....	4,800	62	32	1
Stock raisers.....	3,750	38	188	3
Poultry raisers and laborers.....	2,293	41	201	7
Other occupations.....	1,679	48	30	1

TABLE 101.—Occupations in California in which 1,000 or more persons are engaged, and number of persons engaged in each, in California and in San Francisco in 1910.—Continued.

	Male.		Female.	
	California.	San Francisco.	California.	San Francisco.
Extraction of minerals	31,254	1,051	44	1
Operators, officials, managers.....	2,301	183	19	1
Copper mine operatives.....	1,385	14		
Gold and silver mine operatives.....	15,814	292	43	
Operatives in mines, not specified.....	3,161	879	2	
Quarry operatives.....	2,580	88	10	
Oil, gas, and salt-well operatives.....	4,899	14		
Other occupations.....	1,103	70		
Manufacturing and mechanical industries	261,480	61,785	30,096	9,377
Apprentices, building and hand trades.....	1,153	224		
Other apprentices.....	2,389	621	456	120
Bakers.....	3,755	1,253	165	34
Blacksmiths, forgers, hammermen.....	10,209	1,250	1	
Bushelmakers.....	1,783	665		
Brick and stone masons.....	3,368	870		
Builders, building contractors.....	10,353	2,099	89	23
Carriage-makers.....	1,829	613	1	
Carpenters.....	37,140	7,698	3	
Compositors, linotypesetters, typesetters.....	4,168	1,203	414	119
Dressmakers, seamstresses (not in factory).....	37	21	14,114	3,119
Electricians, electrical engineers.....	8,326	2,172	6	2
Engineers (stationary).....	11,140	2,644	1	
Firemen (except locomotive and fire department).....	3,310	1,641		
Foremen, overseers (manufacturing).....	3,004	418	228	74
Jewelers, watchmakers, silversmiths, goldsmiths.....	1,175	398	28	7
Laborers	60,905	9,705	949	120
Building and hand trades.....	38,494	6,131	602	43
Clay, glass, and stone industries.....	4,215	324	26	4
Iron and steel industries.....	2,947	309	10	1
Lumber and furniture industries.....	5,005	149	33	4
Fish curing and packing.....	1,241	901	2	
Other industries.....	9,003	688	676	70
Machinists, millwrights, toolmakers.....	13,394	2,982	1	
Managers, superintendents (manufacturing).....	3,148	508	48	14
Manufacturers and officials.....	8,327	2,721	282	60
Mechanics (not otherwise specified).....	1,233	783	1	
Miliners, millinery dealers.....	1,804	74	4,053	1,286
Molders, casters, foundrymen.....	1,804	567	4	3
Painters, glaziers, varnishers, etc.....	12,213	3,080	24	12
Plasterers.....	2,202	682		
Plumbers, gas and steam fitters.....	7,063	1,531		
Semiskilled operatives	29,306	9,427	5,720	2,269
Cigar and tobacco factory.....	1,151	463	211	117
Clay, glass, and stone industries.....	1,359	412	43	33
Food industries.....	3,027	1,161	1,640	694
Iron and steel industries.....	6,068	2,351	79	37
Liquor and beverage industries.....	1,477	517	29	13
Lumber and furniture industries.....	4,724	782	391	60
Other industries.....	10,898	3,741	3,424	1,529
Sewers, sewing-machine operators (factory).....	472	227	1,994	760
Shoemakers, cobblers (not in factory).....	2,619	645	11	3
Tailors, tailoresses.....	4,960	1,505	1,434	629
Tinmiths, cooper-smiths.....	1,181	289		
Other occupations.....	12,621	3,806	4,456	64
Transportation	100,052	25,848	4,241	1,057
Water transportation.....	12,612	8,886	2	
Captains, masters, mates, pilots.....	2,386	1,514		
Long-shoremen, stevedores.....	2,803	1,539		
Sailors, deck hands.....	7,450	5,772	2	
Other occupations.....	183	61		
Road and street transportation.....	26,597	6,493	18	1
Chauffeurs.....	2,300	642	1	
Draymen, teamsters, expressmen.....	17,653	4,500	1	
Hostlers, stable hands.....	3,125	629		
Livery-stable keepers, managers.....	1,208	137	7	
Other occupations.....	2,251	495	9	1
Railroad transportation.....	60,402	4,538	135	6
Brakemen.....	2,039	127		
Conductors (steam railways).....	1,876	229		
Conductors (street railways).....	2,854	761		
Foremen, overseers.....	2,109	123	6	

TABLE 161.—Occupations in California in which 1,000 or more persons are engaged, and number of persons engaged in each, in California and in San Francisco in 1910.—Continued.

	Male		Female	
	California	San Francisco	California	San Francisco
Railroad transportation—Continued.				
Laborers	19,381	1,678	85	3
Locomotive engineers	2,714	222		
Locomotive firemen	1,902	180		
Motormen	2,807	609		
Switchmen, flagmen, yardmen	2,266	296	7	
Other occupations	2,255	181	55	
Express, post, telegraph, telephone	6,587	1,327	3,295	1,033
Mail carriers	1,824	384	25	2
Telegraph and telephone linemen	1,517	264		
Telegraph operators	1,680	297	642	112
Telephone operators	291	58	3,520	918
Other occupations	1,295	314	8	1
Laborers	10,365	3,788	6	1
Other occupations (semiskilled)	1,202	688	11	
Other occupations	2,194	888	74	17
Trade	133,093	34,009	17,935	6,471
Bankers, brokers, money lenders	4,827	1,171	169	45
Clerks in stores	11,465	3,905	3,346	831
Commercial travelers	4,691	1,213	72	14
Delicatessenmen	8,467	2,156	6	
Florists, flower carriers	1,051	163	152	40
Insurance agents and officials	3,101	925	121	61
Laborers, coal and lumber yard, warehouses	4,242	579	6	1
Laborers, porters, helpers in stores	3,078	1,168	109	31
Newsboys	1,256	266	7	
Proprietors, officials, managers	1,315	239	55	16
Real-estate agents and officials	9,779	1,784	433	45
Retail dealers	64,752	10,751	2,316	616
Retail saleswomen	29,547	8,910	9,216	2,661
Wholesale dealers, exporters	2,137	646	37	12
Fruit graders and packers	1,696	9	1,573	12
Other occupations (semiskilled)	1,069	315	156	71
Other occupations	1,330	63	268	27
Public service (not elsewhere classified)	23,923	10,405	553	27
Firemen (fire department)	1,924	1,013		
Guards, watchmen, doorkeepers	2,741	857	2	
Laborers (public service)	2,350	711	21	6
Officials, inspectors (city and county)	2,144	264	139	6
Officials, inspectors (State and United States)	1,879	516	363	7
Police men	2,046	1,033		
Soldiers, sailors, marines	9,569	5,765		
Other occupations	1,600	240	29	6
Professional service	61,134	8,720	28,315	5,103
Architects	1,203	399	32	6
Artists, sculptors, teachers of art	1,062	238	1,110	241
Authors, editors, reporters	1,611	660	148	90
Civil and mining engineers, surveyors	4,945	604	1	
Clergymen	3,135	320	65	9
Dentists	2,000	449	81	22
Designers, draftsmen, inventors	1,716	511	412	33
Lawyers, judges, justices	4,671	1,150	37	6
Musicians, teachers of music	2,825	645	3,904	748
Photographers	1,329	301	294	55
Physicians, surgeons	5,179	1,116	652	175
Showmen	1,129	166	62	16
Teachers	2,985	305	13,630	1,758
Trained nurses	454	88	4,406	1,160
Semiprofessional occupations	2,787	610	1,387	319
Other occupations	3,708	856	2,600	661
Domestic and personal service	78,063	23,641	62,000	13,202
Barbers, hairdressers, manicurists	7,098	1,694	1,516	519
Boarders	6,067	2,180	12	8
Boarding and lodging house keepers	1,974	293	6,638	1,247
Hotel keepers, managers	2,768	696	624	182
Housekeepers, stewards	1,361	670	6,673	935
Janitors, sextons	3,603	1,116	644	164
Laborers (domestic and personal service)	2,615	638	97	19

TABLE 161.—Occupations in California in which 1,000 or more persons are engaged, and number of persons engaged in each, in California and in San Francisco in 1910—Continued.

	Male.		Female.	
	California	San Francisco	California	San Francisco
Laundresses, laundresses (not in laundry).....	481	95	3,821	304
Laundry operatives.....	6,159	2,056	4,340	1,120
Laundry owners, off-its, managers.....	1,373	322	149	43
Maiden, nurses (not trained).....	665	127	4,733	1,362
Waiters, except in stores.....	2,947	949	7	7
Restaurant, cafe, luncheon keepers.....	2,811	624	478	80
Sales keepers.....	3,977	1,156	55	24
Servants.....	27,896	6,479	27,204	6,104
Cooks.....	24	1	1,143	264
Other servants.....	15,292	4,567	6,576	1,204
Waiters.....	7,064	1,911	19,623	4,709
Other occupations.....	7,333	3,154	4,372	677
Other occupations.....	4,426	1,504	612	126
General occupations.....	43,432	13,678	21,319	7,699
Agents, canvassers, collectors.....	3,693	1,429	351	65
Bookkeepers, cashiers, accountants.....	13,625	3,732	9,672	2,346
Clerks (except in stores).....	19,831	7,666	8,504	1,296
Messengers, office and bundle boys.....	2,625	961	431	136
stenographers, typewriters.....	1,688	430	11,276	4,033

ANNUAL NUMBER OF APPLICANTS FOR WORK.

No figures are available to indicate how many young persons enter upon wage-earning careers each year in San Francisco. A fairly satisfactory average number, for the purpose of this study, may be obtained from the age-grade distribution of pupils in the public schools. (See Table 23.)

Beginning at 15 years of age, there is a rapid falling off in the number of pupils at each age. By taking the average number of pupils at each age for the four years prior to 15, a figure is obtained which gives the approximate number of pupils passing through the schools annually. As shown in Table 162, this number is 4,293.

TABLE 162.—Pupils in San Francisco schools who are 11, 12, 13, or 14 years of age: 1915.

Age in years	Number of pupils.
11.....	4,618
12.....	4,472
13.....	4,315
14.....	3,707
Total.....	17,112
Average.....	4,278

According to the United States census, 80.6 per cent of children of 6 to 14 years of age in San Francisco in 1910 were reported as attending school. Assuming that the percentage of children attending

school in 1915 was the same as in 1910, the average number of children annually reaching the age of entrance upon vocational life is probably not less than 5,000. This calculation necessarily disregards an unknown number of children enrolled in other than public schools.

Table 163 shows the probable future occupations of 5,000 children, assuming that they will be distributed among the major divisions of occupations in the proportions reported for all those engaged in gainful occupations in San Francisco in 1910. On the basis of this distribution, there would be 1,590 new recruits each year in manufacturing and mechanical industries, 605 in transportation, and so on.

TABLE 163.—Probable future occupations of 5,000 children, distributed according to percentage distribution of persons 10 years of age and over engaged in gainful occupations in San Francisco in 1910.

Occupations	Percentage distribution, San Francisco, 1910.	Number of children in each 5,000 on same basis.
Agriculture, forestry, animal husbandry.....	1.5	75
Extraction of minerals.....	.5	25
Manufacturing and mechanical industries.....	31.9	1,590
Transportation.....	12.1	605
Trade.....	17.3	865
Public service (not otherwise classified).....	4.6	230
Professional service.....	6.2	310
Domestic and personal service.....	16.5	825
Clerical occupations.....	9.6	480
Total.....	100.0	5,000

As shown in Table 161, there were 1,315 compositors, linotypers, and typesetters in San Francisco in 1910, or 0.6 per cent of the total number engaged in gainful occupations, 223,713. The same proportion of 5,000 is 30. There were 2,982 machinists, millwrights, and toolmakers, or 1.3 per cent of the total number. The same proportion of 5,000 is 65. This means that there would be approximately 30 new applicants each year for positions as compositors, linotypers, and typesetters, and 65 applicants for positions as machinists, millwrights, and toolmakers; or two new applicants annually for each 100 persons already engaged in the occupation.

Evidently this proportionate annual addition of new workers, if extended over a period of years, would be inadequate, for it would not be sufficient to provide for industrial development, or even to maintain present working forces. The children do not constitute the only source of supply, however, so that there appears to be some justification for considering the figure given as an approximate index of the annual demand; so far as school children are concerned.

Applying this index number to the figures given in Table 161, the approximate annual demand for workers in certain selected occupations is shown in Table 164.

TABLE 104.—Number of new workers needed annually in certain occupations, in San Francisco, on the basis of 2 to each 100 workers now engaged.

Occupations.	No.	Occupations.	No.
<i>Agriculture, etc.:</i>		<i>Transportation—Continued.</i>	
Dairy-farm laborers.....	2	Express, post, etc.—Continued.	
Farmers.....	3	Telegraph operators.....	8
Farm laborers.....	9	Telephone operators.....	26
Fishermen.....	28	Other occupations.....	6
Gardeners, etc., laborers.....	6	Laborers.....	74
Garden, etc., laborers.....	14	Other occupations (semiskilled).....	8
<i>Extraction of minerals:</i>		Other occupations.....	8
Operators, officials.....	4	<i>Trade:</i>	
Gold and silver mine operatives.....	6	Bankers, etc.....	24
Other mine operatives.....	8	Clerks in stores.....	94
<i>Manufacturing and mechanical industries:</i>		Commercial travelers.....	26
Apprentices, building and hand trades.....	4	Deliverymen.....	43
Other apprentices.....	14	Floorwalkers, etc.....	4
Bakers.....	26	Insurance agents, etc.....	19
Blacksmiths, etc.....	25	Laborers, etc.....	11
Boilermakers.....	8	Laborers, porters, in stores.....	24
Brick and stone masons.....	17	Newshoys.....	8
Builders, contractors.....	41	Proprietors.....	8
Cabinetmakers.....	12	Real estate agents, etc.....	26
Carpenters.....	150	Retail dealers.....	227
Compositors, etc.....	26	Salesmen, saleswomen.....	231
Dressmakers, etc.....	74	Wholesale dealers, etc.....	13
Electricians, etc.....	42	Other occupations (semiskilled).....	7
Engineers (stationary).....	54	Other occupations.....	3
Firemen (except locomotive, etc.).....	32	<i>Public service (not otherwise classified):</i>	
Foremen (manufacturing).....	10	Firemen (fire department).....	20
Jewelers, etc.....	8	Guard, etc.....	17
Laborers.....	200	Laborers.....	14
Machinists, etc.....	60	Officials (city and county).....	6
Managers, superintendents.....	10	Officials (State and United States).....	10
Manufacturers, officials.....	46	Postmen.....	20
Mechanics (not otherwise specified).....	5	Soldiers, sailors, marines.....	118
Milliners, etc.....	26	Other occupations.....	8
Molders, etc.....	11	<i>Professional service:</i>	
Painters, etc.....	60	Architects.....	7
Plasterers.....	13	Artists, etc.....	11
Plumbers, etc.....	37	Authors, etc.....	8
<i>Semiskilled operatives—</i>		Civil engineers, etc.....	16
Cigar and tobacco factories.....	12	Clergymen.....	6
Clay, glass, stone.....	8	Dentists.....	9
Food industries.....	33	Designers, etc.....	10
Iron and steel.....	47	Lawyers, etc.....	23
Liquor and beverage.....	10	Musicians, etc.....	32
Lumber and furniture.....	15	Photographers.....	7
Other industries.....	104	Physicians, surgeons.....	26
Sewing-machine operatives.....	20	Shoemen.....	4
Shoemakers.....	13	Teachers.....	40
Tailors, tailoresses.....	50	Trained nurses.....	24
Tinsmiths, etc.....	5	Semiprofessional occupations.....	18
Other occupations.....	78	Other occupations.....	26
<i>Transportation:</i>		<i>Domestic and personal service:</i>	
Water transportation—		Barbers, etc.....	44
Captains, etc.....	30	Bartenders.....	42
Longshoremen, etc.....	30	Boarding and lodging house keepers.....	30
Sailors, etc.....	115	Hotel keepers, managers.....	14
Road and street transportation—		Housekeepers, stewards.....	32
Chauffeurs.....	12	Janitors, sextons.....	24
Draymen, etc.....	92	Laborers.....	8
Hoslers, etc.....	12	Launderers (not in laundry).....	8
Livery-stable keepers.....	2	Laundry operatives.....	63
Other occupations.....	10	Laundry owners, etc.....	7
Railroad transportation—		Midwives, etc.....	27
Brakemen.....	2	Porters (except in stores).....	19
Conductors (steam railway).....	4	Restaurant keepers.....	18
Conductors (street railway).....	15	Saloon keepers.....	22
Foremen.....	4	Servants.....	253
Laborers.....	33	Waiters.....	81
Locomotive engineers.....	4	Other occupations.....	23
Locomotive firemen.....	2	<i>Clerical occupations:</i>	
Motormen.....	16	Agents, etc.....	80
Switchmen, etc.....	5	Bookkeepers, etc.....	123
Other occupations.....	8	Clerks (except in stores).....	167
Express, post, etc.—		Messengers, etc.....	21
Mail carriers.....	7	Stenographers, typewriters.....	38
Telegraph, etc., linemen.....	5		

A STUDY OF PUPILS 13 OR 14 YEARS OF AGE.¹

A number of school surveys have called attention to the significance of a study of those pupils in a school system who are 13 or 14 years of age. (1) Boys and girls both begin to drop out of school in large numbers soon after the age of 14 is reached, so that at or before this period is the latest possible opportunity to study a cross section of the school population before it is affected seriously by selective elimination. (2) The distribution of pupils of these ages through the grades gives some indication of the success of the school system in classifying the pupils. (3) The study also indicates the extent of the schooling which many of these boys and girls are likely to receive before dropping out of the system. (4) Information concerning the nativity of pupils, their parents, and older brothers and sisters has a bearing on the probable stability of the population. (5) Information concerning the occupations of fathers, brothers, and sisters, and the occupations which the pupils themselves expect to enter is significant in any study of a program for vocational education.

Since it was impracticable to study all children of these ages in the San Francisco schools, a random selection of 11 elementary schools was made and the inquiry confined to the 13 and 14 year old pupils in these schools.

Following is a copy of the form which the children were asked to fill in:

Record of 13 or 14 year old pupils.

1. Name..... Boy or girl..... Grade..... Age.....
2. School..... Teacher.....
3. Place of birth: Post office..... State.....
Country (if not born in United States).....
4. Do you intend to finish the eighth grade?..... To go to high school?.....
To any other school, or college?..... What?.....
5. Are you now employed at any kind of work out of school hours?.....
If so, at what kind of work?.....
6. What do you plan to do to earn a living when you grow up?.....
Why do you plan to do this?.....
7. Place of your father's birth: Post office..... State.....
Country (if not born in United States).....
8. What is your father's occupation?.....
9. Give age of each brother under 21 who is at work and his occupation:
 1. Age..... years. Occupation.....
Name..... Address.....
 2. Age..... years. Occupation.....
Name..... Address.....
 3. Age..... years. Occupation.....
Name..... Address.....

¹This report was prepared by the college of education, University of Kansas, Lawrence, Kans., under the direction of Dean F. J. Kelly.

10. Give age of each sister under 21 who is at work, and her occupation:

1. Age _____ years. Occupation _____
Name _____ Address _____
2. Age _____ years. Occupation _____
Name _____ Address _____
3. Age _____ years. Occupation _____
Name _____ Address _____

The number of papers forwarded to the compiler from the 11 schools was 2,546. Of these, 68 papers were rejected either because the age given was outside the scope of the inquiry or because no age was given. Table 165 shows these 68 papers.

TABLE 165.—Papers rejected.

	Girls.	Boys.	Total.
16 years old.....	1	1	2
15 years old.....	8	10	18
12 years old, normal.....	1	1	2
12 years old, 7th grade.....	1	1	2
12 years old, 8th grade.....	3	2	5
No age given.....	14	18	32
No name or sex given.....			7
Total.....			68

SUMMARY OF ANSWERS TO QUESTIONS 1 AND 2.

It was assumed that normal children 13 years old should be in the seventh grade, and those 14 years old in the eighth grade. Children 13 years old in the eighth grade are considered to be accelerated one year. Pupils below the grades regarded as normal are considered to be retarded. Table 166 shows the number of pupils in each school, divided into five groups, according to their advancement in grades and according to sex. Table 167 shows the per cent distribution by sex. See also Figure 72.

TABLE 166.—Number of pupils accelerated, normal and retarded.

BOYS.

Number of schools.	Accelerated 1 year.	Of normal age.	Retarded 1 year.	Retarded 2 years.	Retarded 3 or more years.	Total.
1.....	10	33	17	25	15	100
2.....	15	32	38	21	2	108
3.....	4	33	33	16	3	89
4.....	11	51	44	16	13	135
5.....	20	36	53	13		122
6.....	4	35	50	23	15	127
7.....	10	63	26	13	6	121
8.....	25	88	32	21		166
9.....	15	32	36	21	5	109
10.....	5	34	52	25	10	126
Total.....	119	442	397	194	60	1,212

GIRLS.

1.....	7	42	30	18	4	107
2.....	11	48	28	11	1	98
3.....	26	34	54	15	1	130
4.....	20	45	42	7	1	115
5.....	25	55	44	6	1	130
6.....	2	25	81	16	10	84
7.....	22	66	29	11	1	129
8.....	33	105	66	11	1	208
9.....	8	35	31	14	5	93
10.....	11	37	63	40	27	168
Total.....	165	492	402	149	49	1,257
GRAND TOTAL.....	284	934	799	343	118	2,478

TABLE 167.—Per cent distribution of accelerated, normal age, and retarded children, of 2,478 cases reporting.

Pupils.	Per cent accelerated 1 year.	Per cent normal age.	Per cent retarded 1 year.	Per cent retarded 2 years.	Per cent retarded 3 or more years.
Boys.....	10	36	32	16	6
Girls.....	13	39	22	12	6
All pupils.....	11	38	32	14	6

It should be noted that no 14-year-old pupils are reported as accelerated, since those that are accelerated have already left the grade schools. For purposes of comparison they should be included and they would doubtless greatly increase the number of accelerated students. In a rough way the rankings of the schools in per cent of accelerated and of retarded pupils are the reverse of each other; but there are some interesting exceptions, due perhaps to chance and perhaps to the ratio between American and foreign pupils.

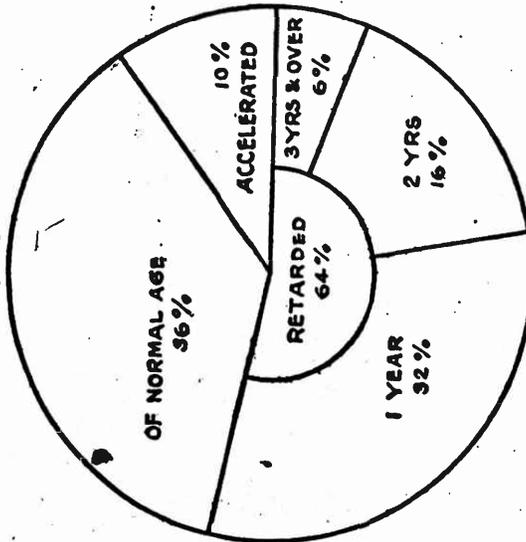
A larger per cent of girls is accelerated than of boys, and a smaller per cent retarded two or more years. But the difference is not very marked, and in some schools the difference is the other way.

SUMMARY OF ANSWERS TO QUESTION 3.

In Table 168 is seen the classification of the pupils by schools according to parentage and place of birth. Of the boys, 35 per cent are of American parentage, 45 per cent are American born of foreign parentage, 14 per cent are foreign born, and 6 per cent are not stated. Of the girls, 35 per cent are of American parentage, 49 per cent are American born of foreign parentage, 12 per cent are foreign born, and 4 per cent are not stated.

SCHOOL STATUS OF 2,478 PUPILS, 13 OR 14 YEARS OF AGE

BOYS



GIRLS

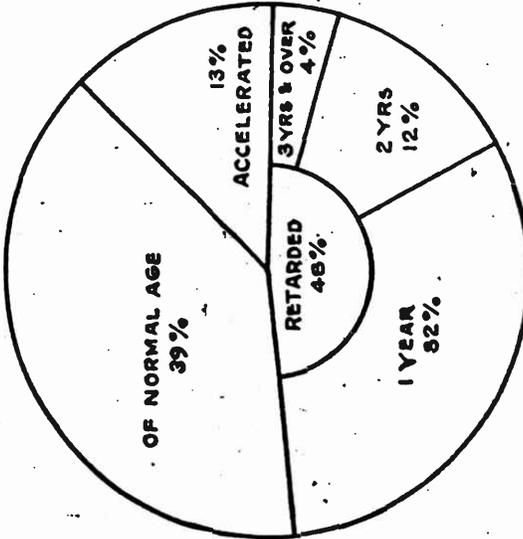


FIG. 72.—Assuming that a pupil 13 years old should be in the seventh grade, and a pupil 14 years old in the eighth grade, only 36 per cent of the boys and 39 per cent of the girls (of 2,478 pupils of these ages chosen at random) are of normal age for their grades. As shown in Table 23, p. 34, pupils 13 years of age are found in all grades from 1A to the second year of high school, and pupils 14 years of age in all grades from 1A to the third year of high school.

TABLE 168.—Place of birth and parentage of pupils.

BOYS.					
Number of school.	American-born, American parentage.	American-born, foreign parentage.	Foreign-born.	Parentage not stated.	Total.
1	36	44	10	4	100
2	27	52	21	8	108
3	38	37	12	2	89
4	61	65	13	6	133
5	40	46	17	17	120
6	14	53	27	3	127
7	67	40	9	5	121
8	90	76	12	8	186
9	51	38	12	8	109
10	16	73	29	8	126
Total	430	554	168	60	1,212

GIRLS.					
Number of school.	American-born, American parentage.	American-born, foreign parentage.	Foreign-born.	Parentage not stated.	Total.
1	31	44	20	12	107
2	33	52	7	4	96
3	53	65	11	1	130
4	39	66	5	5	115
5	51	47	24	8	130
6	17	49	17	1	84
7	53	70	2	4	129
8	98	83	9	13	203
9	47	33	9	4	93
11	21	96	5	0	163
Total	443	607	153	52	1,255
GRAND TOTAL	873	1,161	323	121	2,478

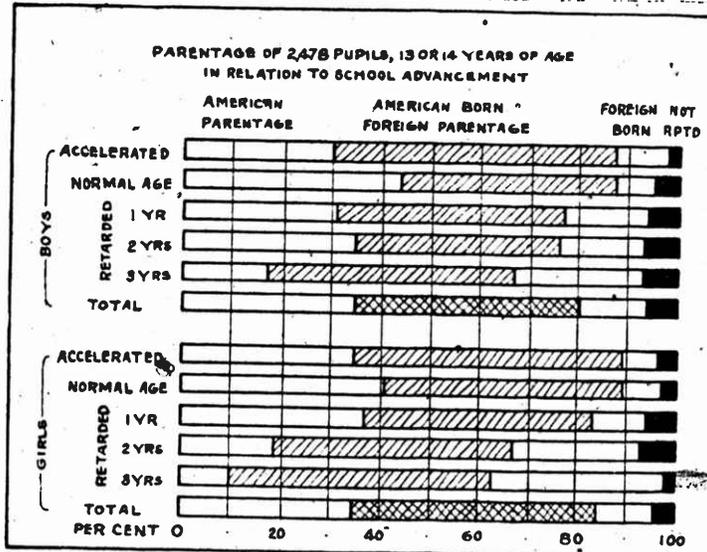


FIG. 73.—Boys of American parentage are 35 per cent of the whole number of boys in this group chosen at random, yet furnish only 30 per cent of those accelerated and 17 per cent of those retarded three or more years; but they furnish 44 per cent of all the normal boys. American boys of foreign parentage are 45 per cent of the whole number of boys; yet they furnish 57 per cent of those accelerated. This and other comparisons show that a larger percentage of American-born children of foreign parentage is accelerated than of children of American parentage, but the latter furnish a smaller percentage of retarded pupils and a much larger percentage of normal pupils. Children of American parents depart less from normal advancement in the grades than do other children.

In four schools—3, 7, 8, 9—among both boys and girls the per cent of American born with American parentage is above 40. Of the boys in school 7 and of the girls in school 9 the majority are of American parentage. On the other hand, the majority of the boys in schools 6 and 10, and the majority of the girls in schools 2, 4, 6, and 11 are American born of foreign parentage. Of the girls in school 3 one-half are American born of foreign parentage.

Table 169 shows the relation between birth and school advancement. Boys of American parentage are 35 per cent of whole number of boys, yet they furnish only 30 per cent of those accelerated and 17 per cent of those retarded three or more years; but they furnish 44 per cent of all the normal boys. Girls of American parentage are 35 per cent of the whole number of girls and they furnish 35 per cent of those accelerated; they furnish only 19 per cent of those retarded two years and only 10 per cent of those retarded three or more years. (See also Fig. 73.)

TABLE 169.—Parentage in relation to school advancement.

This table should be read as follows: Of the boys accelerated one year, 35 boys, or 30 per cent, are of American parentage; 57 per cent are American-born of foreign-born parents, and so on.)

BOYS.

Parentage	Accelerated 1 year.		Normal.		Retarded 1 year.		Retarded 2 years.		Retarded 3 or more years.		Totals.	
	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.
American parentage.....	35	30	194	44	121	31	68	35	12	17	430	35
American-born, foreign parentage.....	68	57	191	43	182	46	79	41	34	50	654	45
Foreign-born.....	13	11	35	8	69	17	33	17	18	26	168	14
Not stated.....	3	2	22	5	25	6	14	7	5	7	69	6
Total.....	119	100	442	100	397	100	194	100	60	100	1,221	100

GIRLS.

American parentage.....	58	35	202	41	150	37	28	19	5	10	443	35
American-born, foreign parentage.....	89	54	235	48	185	46	72	48	26	53	607	49
Foreign-born.....	12	7	42	8	45	11	39	26	17	35	155	12
Not stated.....	6	4	13	3	22	6	10	7	1	2	52	4
Total.....	165	100	492	100	402	100	149	100	49	100	1,257	100
GRAND TOTAL.....	284		934		799		343		118		2,478	

American-born boys of foreign parentage are 45 per cent of the whole number of boys, yet they furnish 57 per cent of those accelerated. American-born girls of foreign parentage are 49 per cent of the whole number of girls, yet they furnish 54 per cent of those accelerated. Thus a larger per cent of American-born children of foreign parentage is accelerated than of children of American parents, but the latter furnish a smaller per cent of retarded pupils and

a much larger per cent of normal pupils. Children of American parents depart less from normal advancement in the grades than do other children.

TABLE 170.—Distribution of pupils according to plans for further schooling.
BOYS.

	Accel- erated.	Nor- mal.	Retarded 1 year.	Retarded 2 years.	Retarded 3 or more years.	Totals.	
						Num- ber.	Per cent.
Not to finish eighth grade.....	0	2	14	27	18	61	5
To finish eighth grade.....	12	90	149	79	20	340	28
To enter high school.....	63	187	98	37	11	396	32
To enter business college.....	11	60	64	28	7	190	16
To enter university.....	33	93	70	18	6	220	18
Not stated.....	0	0	2	5	1	8	1
Total.....	119	442	397	194	69	1,221	100

GIRLS.

Not to finish eighth grade.....	0	0	9	29	29	67	4
To finish eighth grade.....	3	52	122	59	13	249	30
To enter high school.....	95	260	131	36	2	524	42
To enter business college.....	31	89	84	18	4	216	19
To enter university.....	36	79	54	6	1	176	14
Not stated.....	0	2	2	1	0	5	
Total.....	165	492	402	149	49	1,257	100

It is significant that 1 boy in 3 and 1 girl in 4 do not expect any further schooling than the eighth grade (Table 170). All accelerated pupils expect to finish the eighth grade, but 0.5 per cent of the normal boys, 3.5 per cent of those retarded 1 year, 14 per cent of those retarded 2 years, and 26 per cent of those retarded 3 or more years do not expect to finish the eighth grade. Of the girls 2 per cent of those retarded 1 year, 20 per cent of those retarded 2 years, and 59 per cent of those retarded 3 or more years do not expect to finish the eighth grade. The more retarded a pupil is, the less likely is he to expect to finish the graded school.

Of the girls 42 per cent expect to go to high school, while only 32 per cent of the boys have this hope. Nineteen per cent of the girls and 16 per cent of the boys expect to attend business college. In many papers business colleges were named, and they are nearly all private institutions. It seems that here is a field where the public-school system could well be extended. A larger per cent of boys than of girls expect to go to the university.

SUMMARY OF ANSWERS TO QUESTION 5.

The students employed outside of school hours at some definite kind of work are tabulated in Table 171. Only 4 per cent of the boys and 0.5 per cent of the girls are employed in "apprentice" occupations, using "apprentice" in a very wide sense so as to include any employment that would prepare for the occupation which the pupil plans

to enter. It would be a great boon if students that have to seek remunerative employment could find work along the line of their life plans. The accelerated students show a larger per cent without outside work than do the others, but the difference is so slight as to be negligible. It can not be seen that outside employment interferes with school work as far as these papers are any indication. Retardation seems correlated with "apprentice" employments.

TABLE 171.—Distribution of pupils according to present employment outside of school hours.

BOYS.

	Accelerated.		Normal.		Retarded 1 year.		Retarded 2 years.		Retarded 3 or more years.		Totals.	
	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.
No outside work.....	78	65	263	59	234	59	113	59	42	61	734	60
Newspaper routes.....	20	17	65	15	66	17	28	15	5	7	184	15
Other "blind alley" employments.....	14	12	79	18	69	17	24	12	10	15	196	16
"Apprentices".....	2	2	12	3	13	3	14	7	5	7	46	4
Not stated.....	5	4	21	5	15	4	13	7	7	10	61	5
Total.....	119	100	442	100	397	100	194	100	69	100	1,221	100

GIRLS.

No outside work.....	146	88	435	88	345	86	130	87	41	84	1,097	87
Household work.....	15	9	48	10	34	8	9	6	4	8	110	8 1/2
"Blind alley" employments.....	1	1	5	1	13	3 1/2	1	1	1	2	21	2
"Apprentices".....	0	0	0	0	0	0	2	2	2	4	7	2
Not stated.....	3	2	4	1	8	2	6	4	1	2	22	2
Total.....	165	100	492	100	402	100	149	100	49	100	1,257	100
GRAND TOTAL.....	284		934		799		343		118		2,478	

Of both boys and girls, 20 per cent are without any definite vocational ambition, most of them frankly stating that they do not know what they expect to do to earn a living. Table 172.

TABLE 172.—Distribution of pupils according to plans for vocation.

BOYS.

	Accelerated.		Normal.		Retarded 1 year.		Retarded 2 years.		Retarded 3 or more years.		Totals.	
	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.
Mechanics, artisans.....	31	26	113	26	103	26	65	33	31	45	343	29
Engineering and building professions.....	24	20	115	26	89	22	28	14	5	7	261	21
Medicine, law, teaching, and other professions.....	18	15	53	12	36	9	17	9	3	4	127	10
Stenographers, clerks.....	10	8	31	7	31	8	16	8	7	10	95	8
Merchants.....	6	5	30	7	22	6	14	7	6	9	79	6
Farmer, teamsters.....	4	3	15	3	17	4	7	4	2	3	45	4
Seafarers.....	2	2	8	2	5	1	5	3	3	4	28	2
Not stated.....	24	20	77	17	94	24	42	21	12	18	249	20
Total.....	119	100	442	100	397	100	194	100	69	100	1,221	100

TABLE 172.—Distribution of pupils according to plans for vocation.—Continued
GIRLS.

	Accelerated.		Normal.		Retarded 1 year.		Retarded 2 years.		Retarded 3 or more years.		Totals	
	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.
Stenographers.....	40	24	115	29	87	21	27	18	4	8	273	10
Teachers.....	37	22	103	21	32	8	6	4	0	0	178	10
Clerks, bookkeepers.....	17	11	41	8	43	11	15	10	4	8	122	10
Nurses.....	6	4	39	8	47	12	10	7	4	8	106	8
Dressmakers.....	4	3	21	5	32	8	16	11	10	21	83	8
Hilliners.....	10	6	28	6	28	7	10	7	5	10	81	8
Musicians, physicians, and other professions, except teaching.....	14	9	28	6	12	3	1	1	2	4	57	5
Other trades.....	1	1	6	1	29	5	19	12	6	12	82	8
Housekeepers.....	0	0	10	2	7	2	2	1	6	12	25	2
Telephone operators.....	1	1	5	1	7	2	4	3	3	6	21	2
Actresses.....	1	1	4	1	7	2	2	1	0	1	14	1
Not stated.....	32	19	92	18	79	19	37	25	5	10	245	20
Total.....	165	100	402	100	402	100	149	100	49	100	1,257	100

In a general way, a larger per cent of accelerated and normal pupils prefer the professions than do the retarded students. A larger per cent of the students retarded three or more years have their vocation in mind than do other students. Of the boys accelerated, normal, and retarded one year, 26 per cent plan to be mechanics and artisans; of those retarded two years, 33 per cent so plan; and of those retarded three or more years, 45 per cent so plan. The boys planning to enter the engineering and building professions represent 20 per cent of the accelerated boys, 26 per cent of those of normal age, 22 per cent of those retarded one year, 14 per cent of those retarded two years, and 7 per cent of those retarded three or more years. The more retarded, the fewer enter the engineering professions, and the more become mechanics. This principle is more clearly seen in the case of those entering the medical, legal, teaching, and similar professions, representing 15 per cent of the accelerated boys, 12 per cent of the normal ones, 9 per cent of those retarded one year, 9 per cent of those retarded two years, and 4 per cent of those retarded three or more years.

The profession most popular with the girls is stenography, being chosen by 22 per cent of the whole number of girls, by 24 per cent of the accelerated girls, and by decreasing per cents of the other classes, down to only 8 per cent of those retarded three or more years. The teaching profession is still more striking, being preferred by 22 per cent of the accelerated students, by 21 per cent of those of normal age, by 8 per cent of those retarded one year, by 4 per cent of those retarded two years, and by none of those retarded three or more years. The dressmaker's occupation is equally striking the other way, being chosen by 3 per cent of accelerated girls, by 5 per cent of normal ones, by 8 per cent of those retarded one year, by 11 per cent of those retarded two years, and by 21 per cent

of those retarded three or more years. Apparently acceleration is characteristic of those who have the ambition to teach; retardation is favorable to the choice of dressmaking as an occupation. Those planning to be milliners represent 6 per cent of the accelerated girls, 6 per cent of the normal ones, 7 per cent of those retarded one year, 7 per cent of those retarded two years, and 10 per cent of those retarded three or more years. Acceleration seems to accompany the choice of certain occupations, retardation favors the choice of some occupations, and there are other occupations the choice of which does not appear to be affected by either acceleration or retardation. Perhaps the schools emphasize the nurture of the "symbol-thinkers" and neglect the training of the "thing-thinkers."

Of 343 boys planning to become mechanics, 9 per cent are accelerated, 33 per cent are normal, 30 per cent are retarded one year, 19 per cent are retarded two years, and 9 per cent are retarded three or more years. Of those planning to enter the engineering and building professions, 8 per cent are accelerated, 45 per cent are normal, 34 per cent are retarded one year, 11 per cent are retarded two years, and 2 per cent are retarded three or more years. Of those planning to enter the medical, legal, teaching, and similar professions, 14 per cent are accelerated, 42 per cent are normal, 28 per cent are retarded one year, 14 per cent are retarded two years, and 2 per cent are retarded three or more years. The whole number of seriously retarded students is relatively small, and even though a large per cent of them enter a given occupation, yet they will form but a small per cent of the whole number entering that occupation.

Of 178 girls planning to become teachers, 22 per cent are accelerated, 57 per cent are normal, 18 per cent are retarded one year, and 3 per cent are retarded two years, and none are retarded three or more years. Of 83 girls planning to become dressmakers, 5 per cent are accelerated, 25 per cent are normal, 38 per cent are retarded one year, 20 per cent are retarded two years, and 12 per cent are retarded three or more years. Of 81 girls planning to become milliners, 12 per cent are accelerated, 35 per cent are normal, 35 per cent are retarded one year, 12 per cent are retarded two years, and 6 per cent are retarded three or more years. The majority of those planning to enter any occupation will be composed of normal-pupils and of those only slightly retarded.

REASONS FOR CHOICE.

In planning their life work, most of the pupils seemed to feel that it is a matter of their own choice. The reasons for choosing a particular vocation have been apportioned into two classes. Where the pupil writes that he plans his vocation because "he likes it," "he has talent for it," "he does well at it," his answer is classed as "Interest." Where he writes that he wants "to make a living."

"to get rich," "to help his parents," etc., his answer is classed as "Gain." In a very few cases the answer is "Because I have to make a living."

Table 173 indicates these answers arranged in groups according to the advancement in school of the pupils. In 57 per cent of the girls, "Interest" is the determining factor, while among the boys only 33 per cent give "Interest" as the underlying reason. "Gain" is the purpose of 20 per cent of the boys and of 17 per cent of the girls. From man's position as a breadwinner we would naturally expect more boys than girls to be influenced by the "earning" opportunity of an occupation, and the strange thing is that not more of them were so influenced. Of pupils retarded three or more years, a larger per cent is dominated by the idea of earning a living than is found in the other groups. An interesting exception is found among the boys retarded two years, of whom 27 per cent are in the "Gain" column. It is to be noted that 20 per cent of both boys and girls failed to state any vocational ambition whatever, so it is not surprising that 27 per cent of the boys and 26 per cent of the girls fail to state any reason for choosing a vocation.

TABLE 173.—Reasons for planning particular vocations.

BOYS.

	Accelerated.		Normal.		Retarded 1 year.		Retarded 2 years.		Retarded 3 or more years.		Total.	
	Num. bor.	Per cent.	Num. bor.	Per cent.	Num. bor.	Per cent.	Num. bor.	Per cent.	Num. bor.	Per cent.	Num. bor.	Per cent.
"Interest".....	67	56	256	58	190	49	84	43	45	65	648	48
"Gain".....	19	16	84	19	71	18	53	27	15	22	242	20
Not stated.....	33	28	102	23	130	33	57	30	9	13	331	27
Total.....	119	100	442	100	397	100	194	100	69	100	1,221	100

GIRLS.

"Interest".....	113	64	293	54	232	58	77	62	29	59	714	67
"Gain".....	25	13	86	17	68	16	23	15	14	29	211	17
Not stated.....	27	17	143	29	107	26	49	33	6	12	333	26
Total.....	165	100	492	100	407	100	149	100	49	100	1,257	100

SUMMARY OF ANSWERS TO QUESTIONS 8, 9, AND 10.

The significance of these questions seems to be to determine the relationship of the father's vocation, or the brother's or sister's vocation, to the vocational plans of the children. Little of such relationship is revealed. One hundred and forty-seven boys, 12 per cent of the whole number, and 34 girls, 3 per cent of the whole number, determine their vocation in close relationship with that of their fathers. By "close relationship" is meant either the same kind of occupation as the father, or working with the father for a common firm, or being employed by the father. The per cent having this

close relationship is much greater among the boys than among the girls.

A close relationship between the vocation of the pupil and that of the brothers or sisters is found in the cases of 39 boys and 48 girls. It would seem that the girl is more apt to follow her sister than the boy is to follow his brother. Many pupils failed to answer all the questions, and there are doubtless many more cases of close relationship than are here tabulated. About all the occupations of San Francisco are represented among these fathers, brothers, and sisters, and there is no preponderance of any one occupation or type of occupations.

Information was secured from 143 brothers and 88 sisters, a number which is not large enough to justify drawing definite conclusions. Hence, the details of this part of the study are not included in this report.

A STUDY OF HOLDERS OF WORKING PERMITS.

In general, children under 16 years of age are required to be in school, except those who are 14 years of age or over and are provided with permits to work under specific conditions, and those who are 12 years of age or over who are provided with permits to work on school holidays. Such permits are issued by the city or county superintendent of schools.

The report of the superintendent of schools for 1915-16 includes the following statement of working permits and age and schooling certificates issued:

From July 1, 1915, to September 10, 1915 (old law):	
Certificates to children between 15 and 10, not graduates.....	132
Certificates to children between 15 and 10, graduates.....	24
Temporary permits to children between 12 and 15.....	22
Certificates to graduates under 15.....	12
	190
From September 10, 1915, to June 30, 1916 (new law):	
Certificates to children between 15 and 10, not graduates.....	126
Certificates to children between 15 and 10, graduates.....	63
Temporary permits to children 14 years or over.....	196
Certificates to graduates over 14, but not 15 years of age.....	35
	420
Total number certificates issued.....	610

On March 1, 1916, the office of the San Francisco superintendent of public schools contained the records of 593 working permits in force at that date, which had been issued to 440 boys and 144 girls. The age distribution of these children is shown in Table 174, from which it appears that approximately three-fourths (73 per cent) of the entire number are 15 years of age or over—70.0 per cent of the boys and 80.4 per cent of the girls.

TABLE 174.—Age distribution of holders of working permits.

	Number of children of specified ages.				
	12 years and less than 13.	13 years and less than 14.	14 years and less than 15.	15 years and less than 16.	16 years
Boys.....	449	4	12	116	317
Girls.....	144	1	3	24	115
Total.....	593	5	15	140	432

That the children who hold working permits are not chiefly a select group of foreign birth is shown in Table 175, which gives the distribution according to nativity. More than half of the entire number were born in California—55.5 per cent. The proportion of foreign-born girls—31.9 per cent (46 out of 144)—is nearly twice as great as that of foreign-born boys—18 per cent (81 out of 449).

TABLE 175.—Distribution of holders of working permits according to nativity.

	Number of children born in specified localities.				
	San Francisco.	California, outside of San Francisco.	United States, outside of California.	Foreign countries.	Not reported.
Boys.....	449	223	36	109	81
Girls.....	144	64	6	27	46
Total.....	593	287	42	136	127

More than 10 per cent of these permits were issued without securing from the applicant a record of the grade attained in school. consequently it is impossible to present a satisfactory report in this particular. (See Table 176.) Of the 525 applicants who gave this information 262 boys and 73 girls, or 63.8 per cent, had attained at least to the seventh grade in school, 21.3 per cent (112 out of 525) were in the sixth grade, and the remainder were scattered through the lower grades. It must be regarded as unfortunate that any city should allow a large number of boys and girls to start out in life without even the minimum amount of education represented by graduation from the public elementary school.

TABLE 176.—Distribution of holders of working permits according to grade attained in school before leaving to go to work.

Number of children who were in specified grades at time of leaving school to go to work.

	Total.	Below grade 4.	Grade 4.		Grade 5.		Grade 6.		Grade 7.		Grade 8.		Graduated from Eighth grade.	Not reported.
			A.	B.	A.	B.	A.	B.	A.	B.				
Boys.....	440	2	2	6	11	31	29	54	51	59	41	25	86	53
Girls.....	144	4	1	7	6	8	8	21	15	14	9	4	31	16
Total.....	583	6	3	13	17	39	37	75	66	73	50	29	117	69

A study of Table 177, in which the holders of working permits are distributed according to reason assigned for going to work, suggests that in many instances no urgent reason existed, since 316 boys and 118 girls—73.2 per cent of the entire number—gave no reason. All of the reasons assigned appear to be valid.

TABLE 177.—Distribution of holders of working permits according to reasons assigned for going to work.

Reasons assigned.	Number of children who assigned specified reasons.		
	Total.	Boys.	Girls.
Father ill.....	45	38	7
Father ill (mother dead).....	1		1
Father mentally incapacitated.....	1		1
Father not supporting family.....	16	14	2
Parents not supporting.....	1	1	
Father dead.....	62	53	9
Parents dead.....	14	13	1
Family deserted.....	10	8	2
Family separated.....	4	2	2
Family in need of help.....	5	4	1
Not reported.....	131	316	118
Total.....	503	449	144

PLACES OF EMPLOYMENT REPORTED BY HOLDERS OF WORKING PERMITS.

An attempt was made to study the character of the work engaged in and the amount of shifting about in juvenile employments in San Francisco. In many cases, however, only the name of the employer or the kind of establishment is reported, without any indication of the nature of the service rendered. There are no records available showing the employment histories of boys and girls subsequent to the report of first position secured. Nevertheless, certain conclusions may be drawn from an analysis of the places of employment reported, which follows:

1. Number of boys reporting.....	449
2. Character of employment specified.....	150
Delivery wagon.....	1
Errand boy, cash boy, stock boy.....	01
Exposition grounds, wheeling chairs, etc.....	2
Messenger, telegraph, telephone, etc.....	22
Office boy.....	28
Peddling.....	1
Selling newspapers.....	4
Usher, baseball park.....	1
3. Mercantile establishments, character of employment not specified.....	132
Art dealer.....	1
Athletic supplies.....	1
Broker.....	1
Candy, chewing gum.....	2
Cleaning and dyeing.....	1
Clothing.....	7
Crocery.....	1
Dental supplies.....	2
Drugs.....	10
Dry goods, department stores.....	25
Electrical and gas fixtures.....	3
Fruit.....	2
Furniture.....	2
Grocery, coffee merchant, etc.....	9
Hardware.....	6
Hosiery.....	1
Insurance.....	1
Jewelry.....	5
Lime.....	1
Lumber, 1.....	1
Mail-order house.....	1
Meat, fish, and poultry markets.....	10
Millinery.....	5
Music, phonographs, etc.....	2
Optician, optical goods.....	7
Photographs, photographic supplies, blue printing.....	3
Produce.....	1
Restanrant.....	2
Sale stable.....	1
Shoes.....	7
Stationery, drawing materials.....	5
Tailor, ladies' tailor.....	5
Tobacco.....	1
4. Factories, character of employment not specified.....	28
Artificial plants.....	1
Bags.....	3
Boxes.....	01
Buttons.....	1
Cones.....	3
Dress patterns.....	1
Firearms.....	1
Fruit and vegetable canning, preserving, bottling.....	0

4. Factories, character of employment not specified—Continued.	
Notions, toys, novelties, leather goods.....	8
Paper boxes.....	2
Suit cases.....	1
5. Mechanical trades group.....	49
Apprentices, not specified.....	5
Automobiles, garage, etc.....	4
Bookbinder.....	2
Foundry.....	1
Ironworks, shipbuilding, structural steel.....	15
Lithographer.....	1
Machinist.....	1
Plumber.....	2
Printer.....	10
Railroad.....	2
Sheet-metal worker.....	3
Sign painter, show-card writer.....	2
Stair builder.....	1
6. Reported employer's name only, not identifiable.....	10
7. Number not reporting on employment.....	80
8. Number of girls reporting.....	144
9. Character of employment specified.....	21
Cash girl.....	5
Dressmaker.....	2
Messenger.....	2
Nurse girl.....	3
Office assistant.....	2
Packer.....	1
Sales girl.....	5
Waitress.....	1
10. Mercantile establishments, character of employment not specified.....	57
Candy, chewing gum.....	2
Dry goods, department store.....	13
Five and ten cent store.....	0
Fruit and vegetable canning, preserving, bottling.....	17
Hardware.....	1
Importers.....	2
Ladies' garments.....	4
Lithographer.....	2
Millinery.....	8
Seedsman, florist.....	2
11. Factories, character of employment not specified.....	82
Bags.....	12
Baskets.....	1
Cigars.....	2
Electrical supplies.....	2
Knitting mill.....	4
Neckwear.....	1
Overalls.....	1
Paper boxes.....	4
Perfumes.....	1
Shirts.....	2
Sugar refinery.....	1
Waists.....	1

12. Miscellaneous.....	11
Apprentice, not specified.....	2
Bakery.....	4
Exposition.....	1
Laundry.....	1
Printing.....	3
13. Number not reporting on employment.....	23
14. Summary:	
Number of boys reporting.....	449
Number of girls reporting.....	144
Total number of holders of certificates reporting.....	593

In the cases of 150 boys and 21 girls the character of employment is reported, and these are therefore grouped separately, as are also 80 boys and 23 girls who make no report and 10 boys who report name of employer only. The analysis of the remaining cases into mercantile establishments, factories, trades, etc., is not wholly satisfactory, and yet is serviceable to an understanding of the conditions.

Combining the cases of 150 boys in Group 2 with 132 boys in Group 3, and 28 boys in Group 4 with 49 boys in Group 5, it appears that of 449 boys, 282, or 62.4 per cent, found their first employment in mercantile establishments and 77, or 17.2 per cent, made their beginning in the trades and industries. (See Figure 74.)

Combining the cases of 21 girls in Group 9 with 57 girls in Group 10, it appears that of 144 girls, 78, or 54.2 per cent, found their first employment in mercantile establishment and 43, or 29.9 per cent, made their beginning in factories.

While the number of cases involved is small from a statistical point of view, it is worthy of note that (1) a larger proportion of boys than of girls find employment in mercantile establishments; (2) a larger proportion of girls than of boys find employment in factories; (3) only an inconsiderable number of girls left school to enter domestic employment—three as nurse girls, one as waitress, two as dressmakers.

The wide range of variety in places of employment suggests the ease with which young persons may gain a foothold in wage-earning occupations in San Francisco. More extensive investigations which have been made in other cities show, however, that employments open to young people under 18 years of age, and especially to those who are not high-school graduates, are for the most part casual, unskilled, poorly paid, and without definite promise of advancement to responsible and desirable positions.

Every careful study in this field has served to emphasize the importance, from the point of view both of the community and the individual worker, of (1) prolonging the period of education at least to the completion of the high-school course; (2) postponing the entrance into wage-earning life until the individual is suffi-

ciently mature to make some intelligent choice of occupation and to realize the significance of a termination of opportunities for schooling; and (3) realization of the growing tendency in the commercial

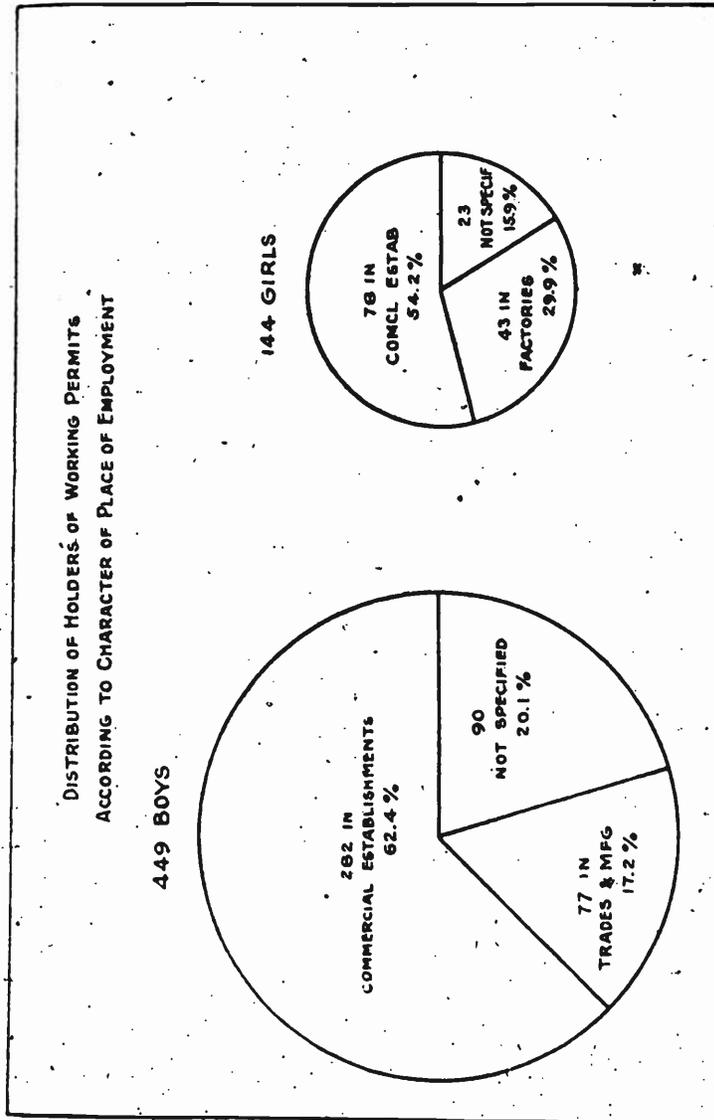


FIG. 74.—So far as conclusions may be drawn from the distribution of holders of working permits, there is more need in San Francisco for commercial than for industrial education. A larger proportion of girls than boys find work in the trades and industries.

and industrial world to restrict entrance into desirable positions to those who give evidence of possessing sufficient education, maturity and judgment to render responsible service.

CONCLUSION.

The steps to be followed in the development of a program for vocational education may be analyzed as follows: (a) Vocational guidance, (b) prevocational education, (c) vocational schools. So far as these terms are concerned, it may be said that the first two have not yet received universal approval. Since no other terms that seem more suitable have as yet been suggested, they are used here simply to designate certain types of educational activity now in process of development.

VOCATIONAL GUIDANCE

One of the significant phases of recent progress in education is in the development of a type of school or department designed to assist boys and girls of approximately the 12 to 16 years old period to a better understanding of their own abilities, of the opportunities afforded by the demand for those who can do the world's work, and of the best possible use to be made of such abilities and such opportunities from the point of view of the life career. When work with this object in view has been undertaken in a more or less formal way as a form of classroom study and through individual conferences between teacher and pupil, with or without visits to industrial and commercial establishments and individual studies and researches, it has been referred to as "vocational guidance."

The importance of this type of work, when conducted by properly prepared teachers and directors, and the practical value of the results achieved, have been demonstrated in numerous localities.

It is recommended that the work, which has been so well begun in a few centers in the San Francisco schools, be encouraged and extended as rapidly as suitable persons can be found or prepared to direct it.

As recommended elsewhere, the responsibility for the work in vocational guidance should lodge primarily with the same school officer who has charge of the work in manual arts and vocational subjects, to the end that there may be unity of aim and coordination of effort in these closely related fields.

PREVOCATIONAL EDUCATION.

When the studies in vocations are developed to the extent that special equipment is provided, so that the student may participate in practical shop and laboratory activities on real projects selected from a number of typical or fundamental vocations, with a sufficient amount of time assigned to the practical work, it is believed

that the pupil may be able to form for himself an intelligent relative estimate of his fitness for the various types of vocation in which he thus engages, as the basis for the choice of a life career. To such special school or class has been given the title of "prevocational school" or "prevocational class."

The prefix "pre" implies a special kind of training that precedes vocational training, and hence is not itself vocational. It is designed for the young person who has not yet made a choice of vocation, or a choice among several opportunities for vocational education that are offered, and who is presumed to receive therefrom definite assistance in the making of such choices.

The latter part of the term, "vocational," implies a considerable variety of activities and a broad outlook into possible future careers. In order to be entitled properly to the use of the term, a program for prevocational education should embrace a variety of activities sufficient to include some representation of each of the important groups of possible vocations, from among which it is assumed that a choice is to be made. There should be included something corresponding to the introductory phases of each of the main subdivisions of vocational education (professional, agricultural, commercial, industrial, and home making), the opportunity to enter upon a definitely vocational course in some one of which presumably will be open as soon as a choice can be made.

The importance of practical work in the field is realized by reflecting upon the increase in the efficiency of the vocational school that would follow from limiting its efforts to those who come to it after having made rational and fairly defined choices of future careers, based upon such trying out as might be afforded in a broadly conceived prevocational school. It is the common experience of the vocational school—whether the trade school, the business college, the normal school, or the divinity school—to find that many candidates apply for admission whose determination to prepare for and to pursue a given vocation is based upon chance considerations, rather than upon an ascertained or demonstrated fitness for success in the chosen calling.

In the aggregate, a vast amount of time and energy, and vast sums of money, have been expended in attempts to prepare persons for occupations in which they can not be successful or contented. A considerable portion of this expenditure might be saved to the individual, to the school, and to society, by a well-organized plan for assisting young persons to "find themselves."

It is recommended that experiments be undertaken, especially in the intermediate schools, to determine what types of prevocational classes will be most helpful to San Francisco boys and girls.

VOCATIONAL SCHOOLS.

As indicated in Table 164, there are a number of occupations reported in the census for which there is a probable annual demand large enough, and in which there can probably be found sufficient teaching material to make practicable the organization of courses of instruction with the aim of preparing effective workers. The most important of these occupations may be grouped conveniently as follows:

1. Salesmanship and business methods courses: Salesmen, saleswomen, 231; retail dealers, 227; clerks in stores, 74; total, 532.
2. Bookkeeping and clerical courses: Bookkeepers, 122; clerks not in stores, 167; total, 389.
3. Mechanical shop courses: Carpenters, 150; chauffeurs, 92; total, 242.

It is to be noted that, with one exception, the probable demand for stenographers and typewriters is less than for any of the other classes of workers mentioned.

It is recommended that the initial steps be taken in the development of practical courses designed to lead to efficiency in two groups of occupations: Salesmanship and business methods, carpentry and automobile work. Experience with these courses will be the best guide in determining what other courses to add later.

It is recommended that each course of instruction be so organized as to aim definitely at the achievement of a certain status for the graduate which can be expressed in terms of ascertained requirements of commercial or industrial establishments; that the entrance requirements and the conditions under which the work is done be made sufficiently flexible to encourage the attendance of those who need the instruction and can profit by it; that the attempt to prepare students for college through these vocational courses be definitely abandoned; that instructors be secured who have had successful and varied experience in the occupations for which it is proposed to prepare the students, and who have special fitness for the work to be undertaken.

It is recommended that a plan be devised for the organization of advisory committees, as they may be needed, to assist in the development of the various types of school and courses of study that may be hereafter determined upon. Such committees should include representatives of employers and workers in each important group of occupations for which it is proposed to organize courses. The committees should be requested to meet with the director of vocational education for the purpose of establishing standards and requirements, planning courses of study and methods of instruction, and

maintaining proper relations with commercial and industrial establishments and with organizations of workers.

It is recommended that further study be made of the possibility of further development of opportunities and facilities for vocational education in the evening schools, of establishing various types of continuation classes, short unit courses, and dull-season courses for the benefit of wage earners.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

VOCATIONAL GUIDANCE.

The work which has been begun in a few centers should be encouraged and extended as rapidly as suitable persons can be found or prepared to direct it.

The work in vocational guidance, the manual arts, and vocational subjects should be developed under a broad, progressive policy, insuring unity of aim and coordination of effort in these closely related fields.

PREVOCATIONAL EDUCATION.

In recognizing the prevocational aim in grades seven, eight, and nine, there should be provided a variety of activities sufficient to include some representation of each of the important groups of possible vocations from among which it is assumed that a choice is to be made.

A complete plan, when finally worked out, should include the introductory phases of each of the main subdivisions of vocational education: Professional; agricultural, commercial, industrial, and home making.

The existing facilities for manual training, fine arts, home economics, etc., should be utilized as the basis for developing prevocational courses.

Experiments should be undertaken, especially in the intermediate schools, to determine what types of prevocational classes will be most helpful.

VOCATIONAL EDUCATION.

Special vocational courses should be developed in salesmanship, business methods, carpentry, and automobile work.

The development of further vocational courses should be based on actual experience with these courses.

Each vocational course should aim definitely at the achievement of a certain status for the graduate which can be expressed in terms of ascertained requirements of commercial or industrial establishments.

The entrance requirements and the conditions under which the work is to be done should be made sufficiently flexible to encourage the attendance of those who need the instruction and can profit by it.

The attempt to prepare students for college through these vocational courses should be definitely abandoned.

Instructors in vocational courses should have had successful and varied experience in the occupations for which it is proposed to prepare the students, and should have special fitness for the work to be undertaken.

Advisory committees should be organized to assist in the development of the various types of school and courses of study that may be determined upon. These committees should include representatives of employers and workers in each important group of occupations concerned.

Further study should be made of vocational courses for the evening schools, continuation classes, short unit courses, and dull-season courses.

Chapter XV.

EDUCATION OF THE IMMIGRANT.

TIDE OF IMMIGRATION.

San Francisco in common with other great cities of the country has profited much in its economic development from the advent of the immigrant. From the golden days of '49 down to the present, San Francisco has been the goal of travelers from all the world. They have come in sailing vessels around the Horn, in the slow-moving prairie schooner, by rail, or by steam, from the continents that border the Atlantic, as well as from the lands of the Orient, until San Francisco to-day is one of the cosmopolitan cities of the world. As the East meets the West at Suez, so the West meets the East at San Francisco, although since the advent of the new régime in China with its consequent dress modification, much of the quaint internationalness of costume of the old San Francisco has disappeared.

As one follows the list of city officials, or runs through the names of persons prominent in business and civic circles, one realizes something of the debt that San Francisco owes to foreigners. These were people of the old immigration, when the process of assimilation proceeded naturally and steadily, when the stranger of his own accord learned our language and adopted our manners, customs, and standards of life. With the change in the character of the immigrant tide, however, came new peoples less inclined to what might be called automatic assimilation. It is this new population which gives rise to the immigrant-education side of the survey. What is the character of this group, and what forces are operating to meet the new situation occasioned thereby?

A study of the census reports shows the following facts with reference to the population of San Francisco, Table 178:

TABLE 178.—*Population and nativity.*

POPULATION.	
Total population, 1910.....	410,912
1900.....	342,782
1800.....	298,007

Increase, 1900-1910	74,120
Per cent of increase	21.6
Increase, 1800-1900	43,785
Per cent of increase	14.6

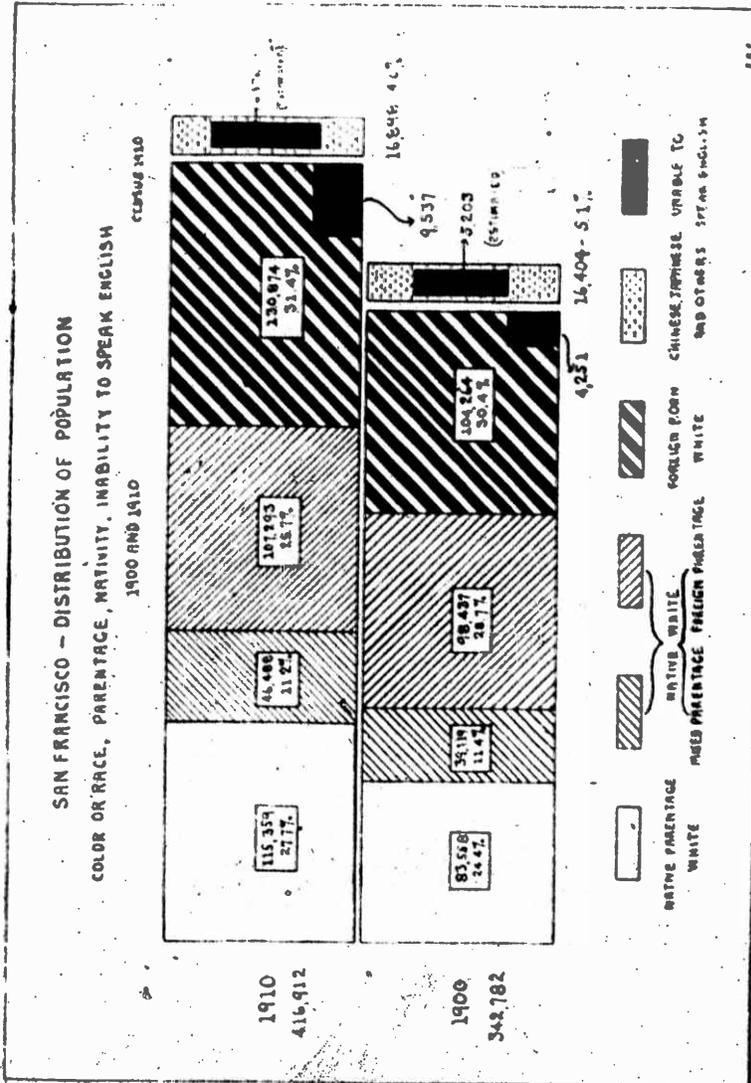


FIG. 75.—The foreign-born white group is the largest single element in the population of San Francisco. This group, as well as that of native white of native parentage, increased slightly in proportion from 1900 to 1910.

Japanese. 1910.....		4,518
1900.....		1,781
1890.....		590
	Number.	Per cent.
Native white—Native parentage, 1910.....	115,350	27.7
1900.....	83,358	24.4
Native white—Foreign or mixed parentage, 1910.....	153,781	38.9
1900.....	137,556	40.1
Native white—Foreign parentage, 1910.....	107,203	25.7
Native white—Mixed parentage, 1910.....	46,488	11.2
Foreign-born white, 1910.....	130,874	31.4
1900.....	104,264	30.4

Some of the facts relating to the distribution of population as regards color or race, parentage, nativity, as well as inability to speak English for 1900 and 1910, are shown graphically in the diagram, figure 75.

ORIENTAL POPULATION.

Striking changes are thus evident in the character of the oriental population. The decrease in the number of Chinese, from 25,833 in 1890 to 13,954 in 1900 and to 10,582 in 1910, seems to presage the gradual disappearance of the Chinese question as an economic factor in the life of the west coast. On the other hand, the marked increase in the number of Japanese, from 590 in 1890 to 1,781 in 1900 and to 4,518 in 1910, suggests the appearance of a new economic problem. Corresponding figures for the whole State are even more significant. Whereas the number of Chinese has decreased from 72,472 in 1890 to 36,248 in 1910, the number of Japanese has increased from 1,147 to 41,356 during the same years. It is worthy to note in passing that the attitude in some quarters toward the Japanese—particularly on the part of the labor-union group—seems decidedly more temperate than it was a few years ago.

DISTRIBUTION OF POPULATION.

From these census figures stated above it is apparent that the foreign-born white group is the largest single element in the population of the city, for there are 130,874 who fall in that category, as opposed to 115,258 native white of native parentage, 107,203 native white of foreign parentage, and 46,488 native white of mixed parentage. What difference of treatment, if any, appears in the conduct of the school on account of this race inheritance will be discussed in subsequent pages.

The distribution of the 130,874 foreign-born whites appears in Table 179.

TABLE 179.—San Francisco—Distribution of foreign-born white population according to country of birth.¹

I. Country.	II. Number.	III. Per cent of total foreign-born white.	IV. Per cent of foreign-born white children in schools. ²
Australia.....	1,347	1.3	.....
Austria.....	4,611	3.5	.....
Canada (French).....	474	.4	.....
Canada (other).....	5,687	4.3	2.6
Denmark.....	3,118	2.3	2.3
England.....	9,815	7.5	8.0
Finland.....	1,848	1.4	.....
France.....	6,244	4.8	4.6
Germany.....	24,137	18.4	26.0
Greece.....	2,274	1.7	.....
Holland.....	500	.4	.....
Hungary.....	1,217	1.0	.....
Ireland.....	23,151	17.7	13.9
Italy.....	16,918	12.9	17.9
Mexico.....	1,783	1.3	.....
Norway.....	3,769	2.8	1.9
Portugal.....	570	.4	.....
Russia.....	4,640	3.5	3.2
Scotland.....	3,668	2.8	3.3
Spain.....	1,170	.9	.....
Sweden.....	6,969	5.3	4.9
Switzerland.....	2,587	2.0	.....
Wales.....	401	.3	.....
Others.....	3,938	3.0	11.6
Total.....	130,874	99.9	100.2

¹ Census, 1910. ² Adapted from table, from Report of the Immigration Commission, v. 33, p. 292.

These census figures show the Germans (24,137) to be the most numerous of the foreign-born white inhabitants of San Francisco, with the Irish (23,151) following close on their heels, and the Italians (16,918) in third place. English (9,815), Swedes (6,969), French (6,244), and Canadians other than French (5,687) form the next group. Then come Austrians (4,641), Russians (4,640), Norwegians (3,769), Scotch (3,668), and Danes (3,118). No other nationality is represented by as many as 3,000 persons. While no figures are available showing the trend in population since this last census year, personal inquiry among the editors of the foreign papers and other persons prominent in the foreign colony seems to warrant the belief that there has been considerable increase among the Italians, Russians, and Greeks.

FOREIGN SCHOOL POPULATION.

Column III of the above table gives the per cents of each of these population figures in comparison with the total number of foreign

born whites living in the city. In Column IV are found per cents representing the nativity and race of fathers of pupils in the San Francisco schools on a particular day in December, 1908. Obviously the dates of record in Columns III and IV are not identical, but they are sufficiently close to provide some basis for comparison. In certain of the nationalities—notably the Germans and the Italians—wide divergence is shown. Such divergence indicates perhaps a larger proportion of children in the population, or perhaps greater regularities in the school attendance. Certain other peoples—especially the English Canadians, the Norwegians, and the Swedes—show a considerably smaller proportion in school than the population of the city would appear to warrant.

The cosmopolitan character of the population of San Francisco may be readily seen from Table 180, which shows the rank of the city in the foreign-born population of certain linguistic groups among the cities of the country having over 100,000 population. It should be kept in mind that at the time of the census of 1910 San Francisco was the eleventh city in size in the country.

TABLE 180.—*Rank of San Francisco in foreign-born population of certain linguistic groups among cities having 100,000 inhabitants or over.*

Chinese.....	1	Albanian.....	5	Swedish.....	7
Finnish.....	2	French.....	5	Russian.....	8
Japanese.....	2	Italian.....	6	Dutch and Frisian..	10
Danish.....	8	Norwegian.....	6	German.....	11
Spanish.....	8	Slovenian.....	6	Syrian and Arabic..	11
Greek.....	4	Portuguese.....	7	Turkish.....	11

The last authoritative analysis of the racial distribution of San Francisco school children is found in the voluminous report of the Immigration Commission, 1910. In many respects this is unsatisfactory for this present discussion, since it covers the number of pupils enumerated as being in actual attendance on a specific day early in December, 1908.

The distribution of pupils in San Francisco schools by races is given in Table 181. In this table distinction is made between the pupils having native and those having foreign-born parents, and among the latter special mention is made of the individual races which have as many as 200 representatives in the schools.

¹ San Francisco is really the third French city of the country, because in Fall River and Lowell, ranking second and third, respectively, the French-speaking population is almost exclusively French Canadian.

TABLE 181.—Nativity of school children.

General nativity and race of father of pupil	Pupils.			
	Public schools.		Parochial schools.	
	Number.	Per cent.	Number.	Per cent.
Native-born:				
White.....	14,068	41.9	1,422	45.1
Negro and Indian.....	76	.2		
Total native-born.....	14,142	42.2		
Foreign-born:				
Canadian (other than French).....	502	1.5	39	
Chinese.....	270	.8		
Danish.....	452	1.3		
English.....	1,541	4.6	73	
French.....	882	2.6	35	
German.....	1,128	12.3	134	
Hebrew, German.....	824	2.5		
Hebrew, Polish.....	260	.8		
Hebrew, Russian.....	589	1.8		
Irish.....	2,646	7.9	1,222	
Italian, North.....	2,274	6.8	53	
Italian, South.....	1,157	3.4	48	
Norwegian.....	361	1.1		
Scotch.....	834	1.9	26	
Spanish American.....	217	.6		
Swedish.....	819	2.8		
All others.....	1,749	5.2	104	
Total foreign-born.....	19,405	57.8	1,734	54.9
Grand total.....	33,547	100.0	3,156	100.0

An examination of this table for the public-school attendance shows that 41.9 per cent of the pupils recorded had native parents and 57.8 per cent had foreign parents. Among the pupils of foreign parents there is a considerable diversity of races. One race, the German, stands out noticeably from the others and is represented by 12.3 of the whole number of pupils. Next in order of numbers come the Italians. If the North and South Italians be united into one group, they form 10.2 per cent of the whole number of pupils. This race is followed in numbers by the Irish with 7.9 per cent of the whole number of pupils, but no other race has as many as 5 per cent of the averages. The table terminates with a collective group "all others," which also contains a considerable number of individual races. They are: Arabian, 2; Armenian, 3; Bohemian and Moravian, 72; Bulgarian, 4; Canadian, French, 92; Croatian, 12; Delmation, 16; Dutch, 78; Filipino, 8; Finnish, 61; Flemish, 2; Greek, 32; Hawaiian, 4; Hebrew, Roumanian, 91; Hebrew, other, 265; Hindu, 2; Japanese, 108; Korean, 1; Lithuanian, 4; Magyar, 70; Mexican, 57; Negro, 4; Polish, 70; Portuguese, 81; Roumanian, 22; Russian, 125; Ruthenian, 4; Scotch-Irish, 5; Servian, 13; Slovak, 22; Slovenian, 80; Spanish, 79; Syrian, 18; Turkish, 3, and Welsh, 87.

While too much weight should not be given this table as indicating probable conditions in 1916, it presents strange facts regarding conditions at the time the data were collected, facts which probably are not fundamentally different today. This table shows the distribution of attendance at the moment of enumeration to be 42.2 per cent for children of native parents, as opposed to 57.8 per cent for children of foreign parents. Reference to the census figures for 1910, a date which differs from the enumeration date noted above by about a year and a half, shows the population of native parentage to be 115,359, while the population of foreign birth, together with that where both parents were foreign, was 238,167. Leaving the 46,488 of mixed parentage entirely out of consideration, we see that the persons of foreign parentage are more than twice as numerous as those of native parentage, while the school populations under these captions are to each other as 58 to 42.

This seems to indicate an unduly small proportion of foreign children in the schools as compared with the number of foreign-born inhabitants in the city. This situation may be partially accounted for by the fact that in all cities of the United States with over 100,000 population the per cent of children under 15 years of age is 26.6, whereas in San Francisco it is only 18.9, Portland being the only city in this group which shows a smaller proportion, where the corresponding figure is 18.8. More significant still is the proportion of foreign-born children under 15 years of age. In San Francisco only 3.1 per cent of the foreign-born children fall within this age group, as opposed to 6.3 per cent for cities of over 100,000 population. Among other large cities of the country, Louisville alone shows a smaller per cent of foreign-born children within this age group.

AGE AND GRADE DISTRIBUTION.

The characteristics of the different races as regards age and grade distribution are shown in Table 182, which is based upon total public school attendance on a day early in December, 1908. Division by grades, in view of the large number of elements concerned, can be most conveniently made by a grouping of the elementary grades into primary and grammar grades. In this form the table gives the details for the grade distribution of the pupils by race:

¹Report of the United States Immigration Commission, vol. 33, p. 283.

TABLE 182.—*Nativity and grade distribution of pupils.*

General nativity and race of father of pupil.	Number of pupils.				Per cent.		
	Primary.	Gram-mar.	High.	Total.	Pri-mary.	Gram-mar.	High.
Native-born:							
White.....	8,044	4,805	1,088	14,027	57.3	34.9	7.8
Negro and Indian.....	65	21		76	72.4	27.6	
Total native-born.....	8,099	4,916	1,088	14,103	57.4	34.9	7.7
Foreign-born:							
Canadian (other than French)....	240	202	57	499	48.1	40.5	11.4
Chinese.....	225	24	11	270	57.0	8.9	4.1
Danish.....	249	187	15	451	55.2	41.5	3.2
English.....	856	591	94	1,541	55.5	38.4	6.1
French.....	513	295	31	839	62.0	34.3	3.6
German.....	2,239	1,656	229	4,124	54.3	40.2	5.6
Hebrew, German.....	359	345	117	821	43.7	42.0	14.3
Hebrew, Polish.....	130	118	12	260	50.0	45.4	4.6
Hebrew, Russian.....	410	158	20	588	68.7	26.9	3.4
Irish.....	1,663	850	123	2,636	62.9	32.5	4.7
Italian, North.....	1,710	619	35	2,364	75.5	22.9	1.8
Italian, South.....	1,023	129	4	1,156	88.5	11.2	.3
Norwegian.....	202	138	18	358	56.4	38.5	5.0
Scotch.....	228	259	45	532	51.9	41.0	7.1
Spanish American.....	163	48	5	216	75.5	22.2	2.3
Swedish.....	530	367	42	939	54.4	39.1	4.5
All others.....	1,122	488	132	1,742	64.4	28.1	7.6
Total foreign-born.....	11,092	6,383	990	19,365	61.9	33.0	5.1
Grand total.....	20,001	11,299	2,078	33,468	60.0	33.8	6.3

The table shows that the primary grades contain a somewhat smaller percentage of all the pupils having native white fathers than those having foreign fathers. The percentage of pupils in the primary grades is noticeably high in the case of the Italians, Chinese, and the Spanish Americans. In the grammar grades there is less divergence between the aggregate for the native born than for the foreign born, children of foreign-born parents being slightly less numerously represented than those of the native born. The individual races vary very widely. Many of them have in this grade a number considerably in excess of the proportion found for children of native white parents. Others have very small proportions, noticeably below those for the foreign group as a whole. Somewhat similar contrasts are given in the high school. These schools contain 7.8 per cent of the children of native birth and 5.1 per cent of those of foreign parentage. Among individual races the proportion of high-school pupils is very large among the English Canadians and among the German Hebrews. It is very small in the case of Spanish Americans and Italians.

FOREIGN COLONIES.

Most of the foreign races living in San Francisco are merged physically in the general population mixture. Some, however, from social or linguistic reasons, subjective or objective, segregate them-

selves in particular localities and constitute veritable foreign colonies. This is true especially in the case of Chinese, Japanese, Filipinos, Greeks, Italians, Mexicans, Portuguese, Russians, and to a certain extent the Polish Jews. Such colonies create decidedly artificial barriers to the influence of American manners, customs, standards of living, ideals, and language, and render the process of assimilation increasingly difficult and slow.

In the case of the Filipinos, Mexicans, and Portuguese the numbers are fortunately not large, but the problem as far as these nationalities are concerned is none the less real. With the Greeks assimilation is largely a question of reaching the adult males, for there are few Greek women in San Francisco, and the number of children of school age is thus remarkably small in comparison with the total population belonging to that race. On September 5, 1916, there were only 28 children of Greek parentage enrolled in the three schools in sections of the city where the Greek population is found, together with one or two in each of several other schools, according to records compiled in the superintendent's office.

CITIZENSHIP.

The naturalization status of foreign-born white males in San Francisco for 1910 and 1900 is shown in the subjoined Table 183 and the accompanying diagram, Figure 76:

TABLE 183.—Foreign-born white males 21 years of age and over classified according to citizenship in San Francisco—1900 and 1910.

	1910	1900	Per cent.	
			1910	1900
Total number.....	75,768	58,102	100.0	100.0
Naturalized.....	36,375	38,375	48.0	66.1
Having first papers.....	10,681	2,357	14.1	4.1
Alien.....	21,872	9,160	28.9	15.8
Citizenship not reported.....	6,840	6,210	9.0	11.1

A curious situation is presented here. The number of naturalized foreigners actually decreased between 1900 and 1910. This may be explained by assuming that many of the foreigners who had acquired citizenship moved away from the city at the time of the fire and failed to return, while the number of subsequently naturalized citizens was not sufficient to counterbalance the exodus. It is not so easy, however, to account for the remarkable increase in those who had taken out their first papers. Careful inquiry failed to elicit any satisfactory explanation of this phenomenon. It is all the more striking when one contrasts these figures with the corresponding

figures for the State as a whole, and for other important cities within the Commonwealth.

In California the number of first-paper holders among the foreign-born white population amounted to 9.3 per cent; for Sacramento, 7.5 per cent; Los Angeles, 9.2 per cent; and Oakland, 10.4 per cent, as opposed to 14.1 per cent in the case of San Francisco. In 1900 San Francisco occupied a very low position in this feature, 4.2 per cent, as opposed to 10.7 per cent for the State as a whole, whereas in 1910, 14.1 per cent of its foreign born had taken out their first papers, in contrast with 9.3 per cent for the State as a whole. Activity on the part of some of the foreign-born groups in an effort to combat the

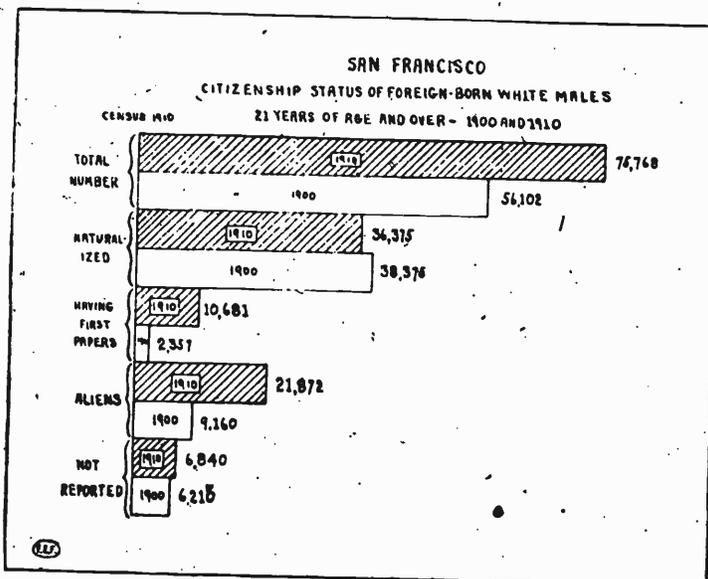


FIG. 76.—The number of naturalized foreigners in San Francisco decreased between 1900 and 1910. During the same period there was a notable increase in the number of aliens and in the number of those who had taken out first citizenship papers.

prohibition movement may account for some of these first-paper declarants, but when all obvious factors have been considered there are still strange conditions to be explained.

INABILITY TO SPEAK ENGLISH.

The increase in inability to speak English among the foreign-born population of San Francisco is a matter of considerably more concern. From 1900 to 1910, the foreign-born population of the city grew from 104,254 to 130,874. During the same decade the number of those unable to use the English language more than doubled

among the white population, increasing from 4,251 to 9,537.¹ Whether this great change can be accounted for under the explanation offered above regarding the actual decrease in the number of foreigners who had taken out their citizenship papers (removal from the city at the time of the fire) or whether it indicates a breaking down in the unconscious means of assimilating the foreigner, it is impossible to say. The existence of a similar phenomenon in other cities of the country suggests that the latter may be a more potent factor.

While no figures are obtainable for the number of Chinese and Japanese in San Francisco who can not speak English, for California the number of the former decreased from 17,593 in 1900 to 17,096 in 1910, and the number of the latter increased from 4,576 in 1900 to 14,471 in 1910. These figures represent, respectively, in 1910, 47.2 per cent of all the Chinese in the State, and 35.0 per cent of all the Japanese. Assuming that the State ratio held true for San Francisco, there would have been 4,995 Chinese and 1,581 Japanese in that city unable to speak English in 1910.²

In 1910, therefore, San Francisco had approximately 6,500 persons of the yellow races and 9,537 foreign-born whites who were unable to speak the English language. Since that date, with the possible exception of the Chinese, the numbers in these groups have probably grown appreciably, although no figures are available for measuring this increase accurately. Such a situation, with thousands of aliens within the city limits, foreign in manners, customs, standards of living, language, and allegiance, is not civically sane, economically wise, or nationally safe.

Knowledge of the English language is fundamental to any assimilation of the foreign element. For this, at least, the municipality has a certain responsibility. Whether or not the State and the National Government should share this responsibility is a matter still to be determined. Certain facts are undeniable: These foreigners are living in San Francisco. They are subject to city control, and accountable to the community for observance of regulations laid down by the police, public-health authorities, and other departments of the municipal government. Although ignorance of the law is no excuse, the city can appreciably lighten the burden of enforcing its regulations if it will offer the foreigner adequate opportunity for learning the language and standards of the country, and then will secure the proper coordination of forces to make it worth his while to acquire this information.

¹ See figure 75, p. 532.

² Under the same assumption the corresponding figures for 1900 would have been 5,400 and 803, respectively. For graphic representation, see figure 75, p. 532.

With these facts definitely before us, it is pertinent to inquire what San Francisco is doing to meet the situation thus created.

ASSIMILATION PROBLEM.

The problem naturally presents two distinct aspects: (1) What is being done for children of school age? (2) What facilities are provided for persons beyond school age?

For purposes of this survey, in order to ascertain conditions concerning foreign children of school age, visits were paid to 12 day schools, to wit: Bryant, Daniel Webster, Ethan Allen, Garfield, Jean Parker, Lincoln, Monroe, Oriental, Patrick Henry, Rincoir, Washington, and Washington Irving. While foreign children are found in other elementary schools of the city, the schools noted above were selected after consultation with the staff in the superintendent's office as being most typical of the foreign districts and as including most of the principal schools which foreign children frequent.

ENROLLMENT OF FOREIGN PUPILS.

Table 184 shows enrollment, number of foreign-born pupils, number of children of foreign parents, and number of different nationalities represented in 11 schools, which, however, differ slightly from the schools visited in pursuance of the survey. These data were collected by the board of education in April, 1916.

TABLE 184.—Total enrollment, number of foreign-born pupils, number of pupils of foreign parents, number of different nationalities in certain selected schools, April, 1916.

School	Enrollment	Foreign born	Children of foreign parents	Number of different foreign nationalities represented
Ethan Allen	78	14	64	12
Garfield	878	177	729	12
Hancock	630	110	489	12
Jean Parker	770	160	655	23
Monroe	1,116	77	613	17
Patrick Henry	409	172	259	15
Portola	860	95	556	12
Sarah B. Coon	610	68	501	11
Washington	765	188	574	9
Washington Irving	804	189	457	16
Yerba Buena	484	55	313	20
Total	7,722	1,303	5,291	

Thirty-two different foreign peoples are here represented, assuming that Hawaii, the Philippines, and Porto Rico are foreign. The list of countries represented follows: Argentina, Australia, Austria, Balkan States, Belgium, Canada, China, Denmark, England, France, Germany, Greece, Guatemala, Hawaii, Holland, India, Dy

land, Italy, Japan, Mexico, Norway, Peru, Philippine Islands, Poland, Porto Rico, Portugal, Russia, Scotland, Serbia, Spain, Sweden, Switzerland.

DIFFERENTIATION OF COURSES OF STUDY

In these 11 schools 17.8 per cent of the pupils were actually born abroad and 72.1 per cent of them are children of foreign parents. It is thus evident that a very considerable foreign influence surrounds the home and family life of the major part of the pupils of these particular districts. They come from homes which are not American, where the civic, political, and spiritual ideals are not American, yet they are assumed to be on the same level as children from families which by long residence in the country have presumably become imbued with the spirit of Americanism. While it is conceivable that the foreign standard in some respects may be higher than the American standard, the point to note is that it is *different*.

If the ultimate effect of the school on all the individual children is to be substantially the same, whatever the natural inheritance or environment may have been, it would not seem unreasonable to differentiate the school work of the foreign child from that of the American child. Mathematics, nature study, and other branches of the more or less exact sciences would be the same whatever the national inheritance of the pupil. English in its various phases, however, and the so-called social sciences would seem to need special emphasis in order to adapt them to meet the requirements of the foreign child.

Further development of this point as regards the social sciences more properly belongs to the field of another investigator, and its particular significance will be discussed there. Suffice it to say at this juncture, however, that a search through the pages of the San Francisco "Course of Study for the Day Elementary Schools," August, 1911, as well as the supplementary publication of January, 1913, fails to reveal any provision for differentiating the instruction of the child of foreign parents from that of the native-born child. Inquiry at several schools likewise failed, with one exception, to bring out any conscious emphasis on the part of the principal in administering the formal courses of study so far as the foreign element of the school was concerned. Yet in one school which was reported to have hardly a dozen real Americans in its classes the principal said: "We have to fight to make them obey the law, especially among the —" (naming one of the dominant foreign groups in the city).

FAILURE TO MEET PROBLEM.

In the face of a problem so definitely stated it is pertinent to ask why the school authorities have taken no formal steps to meet the difficulty. Further emphasis is thrown on the same question by the statement of the health officer of the city, who complains about the imperviousness of some of the foreign peoples to his efforts to enforce the regulations of the board of health. Some of this imperviousness arises from mere language ignorance, but some is due to absolute disregard of society's rights. The "Land of Liberty" is mistakenly interpreted to signify absolute personal license to do as one pleases despite any public interest which may be involved.

AMERICANIZING THE SECOND GENERATION.

Some light is cast upon this problem of Americanization in the second generation by data obtained from the Ethan Allen (parental) School. On September 1, 1916, 41 out of 57 in attendance on that day were either foreign born or the children of foreign-born parents, the majority being Italian. Forty-one out of 57 represent a considerably greater proportion (71.9 per cent) than the children of foreign parents who are of the total school population in the public schools (57.8 per cent). One should nevertheless be chary about basing too radical conclusions on this difference, for it is undoubtedly true that American children who might be sent to this parental school escape this penalty altogether by transferring to a parochial school. Despite the large proportion of foreign children in this parental school, no special efforts are put forth to imbue the pupils with the true spirit or ideals of Americanism, at least so far as inquiry at the school or observation in its classes could show.

MONROE SCHOOL.

In contrast to the general apathy of action in extra school activity it is interesting to note the work at the Monroe School. Here much has been done of a civic or social-center nature to utilize the resources of the school for the benefit of the neighborhood—a locality populated largely by families of Italians, Germans, French, Russians, and Scandinavians. While there was only one class in the evening school for foreigners learning English last year, there were gymnasium clubs for small boys, large boys, and girls, classes in rug weaving, sewing, chorus singing, and ukelele instruction, Italian and Spanish, and a dramatic club. These groups were all full and each had a waiting list.

At the time the school was visited—August 30, 1916—none of this class or club work had been started in the school building, although some of the teachers were attempting to hold their groups together by meeting in quarters outside. The new regulations for control of neighborhood centers proposed for 1916-17 are apparently responsible for the delay in organizing the work. Further discussion of this proposed plan will be found in another section of the survey.¹

In previous years efforts have been made to gather a group of Italian women in the afternoon, but opposition on the part of the men to the women and girls going out at all for such purposes has thus far rendered all attempts of this nature of little avail. Systematic efforts to demonstrate the harmless and at the same time helpful character of these classes are evidently necessary.

ORIENTAL SCHOOL.

In considering the question of Americanizing the foreigner through influences which play upon the child in the elementary school, one's thoughts instinctively turn to the Oriental School. In reality this is a Chinese school, for since the spring of 1907 Japanese have not been in attendance. In consequence of a resolution of the board of education passed October 11, 1906, the board and the superintendent of schools were invited to Washington by President Roosevelt to consider certain questions raised by the Japanese regarding the operation of this resolution by which principals were directed "to send all Chinese, Japanese, and Korean children to the Oriental Public School." This resolution was directly based upon a paragraph in the State school law which, in the edition of 1915, reads thus:

The governing body of any school district shall have power . . . to establish separate schools for Indian children, and for children of Chinese or Mongolian descent. When such separate schools are established, Indian, Mongolian or Chinese children must not be admitted into any other school.—School Law of California, 1915, sec. 1062, par. 3.

This original resolution of the board of education was framed to meet certain exigencies arising from the presence of over-age Japanese boys and youth among small children in the elementary schools. By limiting the over-age for children of alien birth to 3 years beyond the normal age for entering any one of the eight grades of the elementary school, the board met some of the difficulties of the situation. For alien children affected by this restriction or otherwise deficient in knowledge of English, a number of schools were set apart where special provisions were made for their instruction, and they were not allowed to attend other schools. Seven schools were designated

¹ See Chapter IX.

for this purpose, while the ungraded classes in five other schools were opened to such alien children. In consequence of these negotiations and resolutions, Japanese children are not found among the pupils at the Oriental School.

At the time the school was visited in August, 1916, there were 690¹ pupils on the register, with 656 present on that particular day. Of these, 213 were born in China, 411 were born in continental United States, and 32 were born elsewhere, or the places of birth were not reported. This information was obtained by the investigator through directly questioning the children in each of the 15 classrooms. Official records of the school are not kept in such manner as to show these facts, although the principal has a personal record which differentiates native and foreign-born children. Inasmuch as names were entered here chronologically according to date of original enrollment, it would have been a matter of considerable difficulty to obtain even from these unofficial records satisfactory information as to the nativity by classes.

One is struck by the great preponderance of boys in the school (466) in comparison with the number of girls (229). There are relatively few Chinese women in this country, and almost no girls are brought in. Boys seem to seep through from abroad despite the care exercised by the immigration officials, for nearly a third of this school is composed of boys born in China (213), yet it is hardly possible that the parents of all these boys belong to the "preferred" classes, i. e., merchants, students, travelers. It is interesting to note that in one of the classes, which was made up entirely of boys, only 6 out of 33 were living with their parents, and all but 4 of these fellows were born in China.

This school presents a striking instance of lack of course-of-study adjustment to meet the peculiar needs of the pupils. Yet here is a group which is racially decidedly homogeneous, and thus presents an unusual opportunity for course-of-study adjustment along racial lines. Almost all are Chinese, with a slight sprinkling of Mexicans and some other races. Many of these pupils do not speak English when they come to school, yet the course of study which they follow (according to the statement of the principal of the school) is the regular course prepared for the elementary schools of San Francisco.

With the language handicap which weighs heavily upon these foreign children, it is difficult to see how the regular course of study can be covered satisfactorily. The character of the oral English in the eighth grade would certainly seem to strengthen this conclusion. Pupils of this class gave a flag salute in the presence of the investi-

¹ Official records for the first month in the school year 1916-17 give 605 enrolled, 404 boys and 229 girls.

gator, followed by repetition by the class of the oath of allegiance to the United States. This salute was performed in such a perfunctory fashion that it was absolutely impossible to catch a word that was uttered. An effort was made to ascertain what this ceremony meant. The teacher was asked to indicate her best pupil, and the question was put to him. In this particular case no reply at all was forthcoming, and it is extremely doubtful if he understood the English. Various other pupils were asked the same question, with only slightly more favorable results on the linguistic side, but no more satisfactory replies were received as to the substance of the question.

Although it may be claimed that a certain allowance should be made for the strangeness of the questioner, the test is exactly the same that the individual pupil must face outside the school, and the fact remains that these eighth-grade pupils did not respond, whether through language ignorance or through failure to appreciate or to state the significance of the flag salute and the oath of allegiance.

The whole episode raises the question as to the adaptation of subject matter and methods to meet the needs of different racial groups. This is merely a phase of the larger problem—adaptation of courses of study to conform to varying individual or group needs—but the discussion of this larger problem does not fall within the scope of this particular aspect of the survey.

Admittedly one of the great problems of Americanization is concerned with the second generation, where the restraining influences of the foreign civilization are sloughed off before corresponding conserving ideals have been built up in the newer civilization. Unless the day schools—and chiefly the elementary schools—meet this problem with the younger generation, the ultimate Americanization, in the highest and best sense of the term, of the foreign infiltration will become less and less probable.

PUBLIC EVENING SCHOOLS.

The other phase of this assimilation problem of the foreigner appears in the public evening schools maintained by the city. California is the only State in the Union which specifically mentions evening schools in its constitution.

The public-school system shall include day and evening elementary schools, and such day and evening secondary schools, * * * as may be established by the legislature or by municipal or district authority. The entire revenue derived from the general State school tax shall be applied exclusively to the support of day and evening elementary schools; * * *.—State School Law of California, 1915, extracts from Constitution, Art. IX, sec. 6.

The State school law supplements this and guarantees a certain length of year wherever evening schools are established. Such

duration is not expressed absolutely, but in terms of the day-school year of the community or district in question.

Boards of school trustees and city boards of education must maintain all the schools established by them for an equal length of time during the year,¹ and as far as possible with equal rights and privileges; * * * —Sec. 1619.

Units of average daily attendance wherever used in this section shall be construed to be the quotient arising from dividing the total number of days of pupils' attendance in the regular full-time day, part-time day, and evening elementary schools of the district for the school year by the number of days school was actually taught in the regular elementary day schools of the district during the year.—Sec. 1838, par. 5.

When evening schools are established and maintained in accordance with the above provisions and other details of the State law the community receives a grant from the State based upon average attendance. Five per cent of attendance is credited for each 12-minute period of attendance per pupil in a part-time day or evening school. This works out as 50 per cent for 2 hours. In other words, for purposes of State grant a 2-hour session in the evening is the equivalent of a half-day session. Evening-school attendance is thus merged into the general total of attendance, and the State grant is allotted upon each unit of attendance.

This system of computation makes it difficult for any community in California to state the exact amount of State aid received for evening-school work. Besides this average attendance grant, the sum of \$550 is apportioned to each school district for every teacher allowed to it on the regular basis of 35 units of average daily attendance. Such grants are made by the county superintendent and are drawn from both State and county funds. San Francisco being a "city and county" this responsibility devolves upon the local superintendent of schools.

TEACHING STAFF.

While some of the teachers on the evening-school staff began their service years ago, before the present method of appointment was in operation, all the new appointees must conform to the same standards that are required for day-school teachers. This guarantees a minimum teaching ability, but establishes no requirement for the possession of any of those special qualities which are essential in teachers of adult foreigners.

Salaries are good, when compared with those paid in the country as a whole, for all regular teachers receive \$55 per month (\$65 for

¹ There is no little opposition in the State to the strict enforcement of this requirement on the ground that it penalizes counties which have a long day-school term. While there has been no decision rendered covering this point, it is believed that the State superintendent would rule that a pro rata allowance should be made for evening schools, provided they were in session for 120 nights, the minimum school year, to prevent a school "lapping."

high-school and commercial classes) for a 12-month year. Head teachers in the commercial and technical departments of the evening high school receive \$80 and \$105, respectively. Principals of 1-class schools likewise receive \$55 per month, while principals of the larger schools receive from \$80 to \$125 per month.

At one time the Board of Education refused to allow a teacher to teach in both day and evening schools, presumably in pursuance of the provision of the charter¹ which forbids a person holding two salaried offices under the city and county government. While the justification for this provision is thoroughly general, there is a peculiar reason operative in the case of teachers. It is impossible for the ordinary person to teach 5 or 6 hours per day and 2 hours in the evening, in addition to the necessary preparation for all these classes, and be fresh for work in both instances. One school service or the other is bound to suffer. It is quite immaterial whether the day teaching is done in public or private schools, in San Francisco or outside. According to members of the school board there is reason to believe that day-school teachers of the trans-Bay region are teaching in San Francisco evening schools.

San Francisco has a unique opportunity to put its evening-school staff on a firm basis of professional competency. At the present time, the evening-school teachers are admittedly not equal to those in the day school on the average. This is quite to be expected in view of the higher salary schedule prevailing in the day schools. Most of those who are in teaching as a profession naturally obtain transfers to the day staff whenever possible. Inasmuch as the State law recognizes an evening session as the equivalent of half a day session for average attendance grants, the city is in position to carry this recognition a step further.

Barring the case where technical subjects profit by the employment of persons actively pursuing such technical work during the day, all teachers in evening schools should be professional teachers, present or past, preferably those in the city school system, but nobody should be allowed to teach all day and during the evening as well. There should be no differentiation of qualification between evening-school and day-school teachers, either in theory or in practice. All should be on the regular staff and should teach morning and afternoon, morning and evening, or afternoon and evening, in any case receiving therefor a full day's salary.

Not only would this put the evening-school force upon a more substantial professional basis, but so long as the teachers were recruited from those working in elementary schools an actual economy would result. At present the evening-school teacher is paid \$55 per month

¹ Art. XVI, sec. 4, edition 1915, p. 197-8.

for half-time work. At the same time, the maximum salary in the elementary school, reached after seven years' teaching in the public schools of San Francisco, ranges from \$97 to \$102. In other words, the evening-school teacher for admittedly less effective work is paid on a basis of \$110 per month, or from \$8 to \$13 per month more than the maximum salary paid in day schools. When one considers that not all the evening-school teachers would be upon this maximum basis, a real economy must obviously be possible.

EVENING-SCHOOL INSTRUCTION.

Evening classes in San Francisco are now conducted in 16 different schools. Only 7 of the schools have classes distinctly for foreigners, although one other, the Bernal, reports a foreign group among its regular pupils. Below will be found a list of the evening schools reported, with indications of the character of the work offered in each, Table 185:

TABLE 185.—Types of work in San Francisco evening schools.

Schools.	Classes.			
	Elementary.	Secondary.	English for foreigners.	Technical.
Bernal.....				
Commercial Evening.....	X			X ¹
Hamilton.....	X		X	X ²
Horace Mann.....	X		X	
Humboldt.....	X		X	
Irving M. Scott.....		X		
Jean Parker.....				X ¹
Lincoln.....				X ¹
Monroe.....	X		X	
Navigation.....				X ³
North Beach.....				X ³
Portola.....	X		X ⁴	
Roosevelt.....	X			
Sheridan.....	X			
Sherman.....	X			
Washington.....	X		X	

¹ Domestic science subjects.
² Commercial subjects.

³ Navigation.
⁴ Two evenings per week.

COMMERCIAL EVENING SCHOOL.

At the Commercial Evening School, Fell and Franklin Streets, there are two classes for foreigners learning English, an elementary and an advanced, with an official enrollment of 53 and 45, respectively, for the first month of the present school year, 1916-17. These classes are composed chiefly of Russian Jews of an unusually intelligent type, who made their way to this country across Siberia largely during the months of the present calendar year. Most of them are well-educated persons in their own languages, so that rapid progress in English has been comparatively easy. Much of this is due to a

wise selection of method—an adaptation of the well-known direct method of modern-language teaching.

Special charts and other devices have been prepared by the teacher of the beginning classes; a system of phonic cards is used, and considerable written work is required of the pupil. As a result of the foundation laid here, rapid progress is possible in the advanced class. Fortunately, none of the regular State texts was found, their places being supplied by such books as Buhlig, Business English; Plass, Civics for Americans in the Making, and the like. Some of the regular supplementary readers were used to good advantage.

Roll call is a regular part of the work of the beginners' class. In this exercise each pupil rises and says: "My name is: * * *. I live at * * *. I have been in this country * * * months." These pupils showed remarkable command of English considering the very brief period they had been in America. In this school a systematic grading scheme is in operation.

HAMILTON SCHOOL.

The Hamilton School, Gery Street between Scott and Pierce Streets, has two regular classes for foreigners, and one other class which enrolls some foreign pupils. This last is a real ungraded class. Although theoretically the first two classes represent a beginners' and an advanced group, inquiry in the classrooms failed to show any strict differentiation along that line. Both classes had beginning pupils, and both had pupils who were in the same class last spring. The official enrollment for August, 1916, showed 62 and 71 pupils, respectively, in the two classes, although the actual number present on two evenings at the moment when these classes were visited showed 28 and 39 for one class, and 23 and 34 for the other class.

As far as attendance is concerned these figures were fairly representative, for the official State average-attendance figures for the month were 16 and 17.3, respectively. It should be noted that this State attendance in evening schools for purposes of record and grant is half the actual attendance, an evening session being reckoned as half a school day. Both these groups were decidedly international in character, with no particular nationality strikingly dominant.

One of the classes of this school was strongly suggestive of the district school of the older type. A purely individual method of instruction was followed, each pupil being called up to the teacher's desk, seated on a stool, and told to read from the book he was using (in each case, so far as observed, the regular State reading books for the elementary grades of the day school). The teacher graded each recitation, at least when she did not forget to do so. In two

instances, she evidently neglected to record any mark, for both these pupils were called up a second time. The teacher failed to notice the second appearance of the same pupils, although barely five minutes had intervened. One man escaped by protesting that he had just read, while the other, a Korean, had to read his lesson all over again. He was marked this time. Three or four of the pupils (Orientals) were busy laboriously working out their tasks at their seats with the aid of dictionaries. These details are given in order to show the character of the work. According to the statement of the teacher herself, practically all of her instruction was of this individual nature. With 28 or 39 pupils (the number actually found in this class on two successive visits), the small measure of progress possible may be readily understood.

In another class, this same individual method was much in evidence. Pupils were called upon to read one after the other from a text which was obviously too difficult for them. When each pupil finished, the teacher recorded a mark, but vouchsafed absolutely no comment or correction. It was impossible to follow the reading without a text before one, for the pupils did nothing but pronounce (or rather mispronounce) a succession of words. Such a matter as conveying an idea through reading seemed absolutely foreign to the mind of everybody concerned.

An extreme example of evening school discipline appeared at the close of a session in one of the rooms of this building. The class was formed in line for dismissal just as though they were kindergarten children. Among the pupils was one man between 50 and 60 years of age, and another who was apparently in the neighborhood of 70 years, yet they were kept standing in line until all the girls on this floor had passed down stairs, and then at the stroke of the bell they, too, filed silently out. Such instances as this suggest a possible reason why adults drop out of evening schools, and indicate further that class control as well as methods and texts need to be adapted to the maturity of the pupils.

HORACE MANN.

At the Horace Mann Evening School, Valencia Street, between Twenty-second and Twenty-third Streets, there are two classes of foreigners, one for beginners and one for advanced pupils, enrolling 40 and 39, respectively, in the month of August, 1916. Greeks, Italians, and Norwegians were the dominating nationalities present in the former class, and Russians, French, and Italians in the latter class on the evening the school was visited. Grading at this school is somewhat uncertain. Formerly the teacher of the beginning class is said to have sent her pupils on to the advanced class, but such

does not seem to be the practice now. In this lower class there were three fairly distinct divisions, some of the pupils being fully as advanced as those found in the so-called advanced class.

LINCOLN SCHOOL.

The Lincoln Evening School, in the Hearst School Building, Hermann and Fillmore Streets, has only one foreign class, with an official enrollment of 63 for the month of August, 1916, and an average attendance of 20 persons present, based upon the three evenings this class was visited. Last year there was a total enrollment of 200 or more, and two years ago there were four flourishing classes. The board of education consolidated some of these classes, and rather disastrous results followed. There is crying need for a special teacher for the citizenship class, but for some reason this teacher has not been forthcoming. It is impossible for one teacher to handle beginners and citizenship candidates in the two hours allotted to the session. The teacher distributes her time to the best of her ability, but slack periods are unavoidable, interest lags, and the classes can not be recruited to desirable numbers.

Most creditable work is being done at this school. The principal and the teacher of the foreign class have sent out at their own expense personal invitations in response to the notices received from the Bureau of Naturalization at Washington in an effort to give applicants for citizenship some preparation for their examination. When her pupils come up for their naturalization examination, this teacher always arranges to be in court with them.

Below will be found three notices sent out from the Lincoln School last spring which are self-explanatory.

I.

SAN FRANCISCO, CAL.,
February 29, 1916.

DEAR SIR: The Lincoln Evening School, at the corner of Fillmore and Hermann Streets, San Francisco, is starting a class especially for foreigners who desire to learn the principles of the United States Government in view of becoming citizens of the United States.

School holds from Monday to Friday, from 7 p. m. to 9.15 p. m.

There are no charges. You are cordially invited to join our class.

Respectfully, yours,

FRANK FENTON, *Principal.*

II.

SAN FRANCISCO, CAL.,
May 21, 1916.

DEAR SIR: The Lincoln Evening School, at the corner of Fillmore and Hermann Streets, San Francisco, has a class especially for foreigners who desire to learn the principles of the United States Government in view of becoming

CITIZENS of the United States. You are cordially invited to join the class. School holds from 7 until 9.15 each evening from Monday to Friday.

There are no charges.

Respectfully, yours,

FRANK FENTON, *Principal.*

III.

SAN FRANCISCO, CAL.,

June, 1916.

DEAR SIR: You are cordially invited to join a class in American *Citizenship* at the Lincoln Evening School, corner of Fillmore and Hermann Streets, San Francisco. School every evening from Monday to Friday, from 7 p. m. to 9.15 p. m.

This class will teach you the principles of our Government and fit you to become an American citizen.

There are no charges.

Respectfully, yours,

FRANK FENTON, *Principal.*

A special text in civics¹ has been prepared by the teacher and printed at her expense for use in this citizenship class. Much more might be accomplished in citizenship instruction in this school if a special teacher were available.

Instruction in English is on a higher plane still, for a series of lessons has been specially devised for use of the pupils in this school and in part printed.² This book is constructed along the line of the pupils' interest, and follows the direct method of instruction, besides containing full and specific directions for using the dramatic method.

Homemade wall charts supplemented the text and stimulated the pupils' interest. Such charts are extremely valuable as teaching adjuncts.

PORTOLA SCHOOL.

At the Portola Evening School, Bacon and Berlin Streets, a class for foreigners is conducted on Tuesday and Thursday evenings, the other three evenings of the week being given over to an ungraded elementary school class (sixth to eighth grades). This foreign class had an official enrollment of 18 (about evenly divided between Russian Jews and Italians) for the month of August, 1916, with an average attendance of 6. With minor modifications the regular day-school course of study is followed in this class, the first three State readers and the State text in history forming the basis of the reading material. The teacher asserted that there was no course of study for evening schools.³

¹ Wheeler, Charlotte: *A Few Lessons in Civil Government for Foreigners*, 1918.

² Wheeler, Charlotte: *The 7 Book*. No. 1. Lincoln Evening School Method, 1916.

³ Yet see *Courses of Study for the Evening Elementary Schools*, August, 1907, and *Modifications in Course of Study for Elementary Evening Schools*, August, 1911.

SHERMAN SCHOOL.

At the Sherman Evening School, Union and Franklin Streets, there is one class for foreign pupils. This had an enrollment of 34 pupils in August, 1916, with an average attendance of 11 pupils. On the evening the school was visited there were 15 present, all Italians. A substitute teacher was in charge of the class. His youth and lack of experience called for helpful supervision and wise counsel, which were not provided. The lesson of the evening, taken from the regular State series first reader and entitled "The Hen and the Bag of Flour," was hardly suitable for grown men and women, whatever their advancement in English. Such material is a reflection on their intelligence.

WASHINGTON SCHOOL.

At the Washington Evening School, Washington and Mason Streets, there were three classes for foreigners, with an official enrollment for the month of August, 1916, of 65, 55, and 52, respectively, and an actual attendance when the school was visited of 30, 38, and 13. One class was largely Italians; one was very cosmopolitan in its make-up; while the third had many Mexicans and South Americans, as well as two Greeks, one Chinese, and one Bulgarian.

So far as could be learned, there is no systematic classification of pupils, yet here they are certainly in sufficient numbers to warrant careful organization on the basis of ability in English. Apparently neither principal nor teachers knew of any course of study for evening schools, although they were said to be following the "regular" course of study. Subsequently it appeared that this meant the day-school course. The following account of an interview with the principal will suggest something of the type of supervision which prevails in this school:

Question: "Who makes the selections from the day-school course for use in the foreign classes?" *Answer:* "I do."

Question: "Is this done in writing?" *Answer:* "No."

Question: "How do the teachers know what to take?" *Answer:* "I tell them."

Question: "Do you do this for every night?" *Answer:* "No; I map out the work in general."

Question: "How did Mr. X (an inexperienced teacher who was in service the second night) know what to select for this spelling lesson?" *Answer:* "Oh, he did it himself. He is trying to find out where they belong."

This young man in question had the making of a good teacher, but he was woefully in need of careful and close supervision.

Aside from the schools noted above, there are no classes for foreigners in any of the public evening schools of San Francisco. A few scattered individuals may, however, be found in some of the other schools, e. g., one German and two other foreign-born whites

at the Bernal School; one Mexican and one Italian at the Monroe School; one Chinese, one German, seven Italians, and one other foreigner at the North Beach School; one Italian, one Spaniard, one Mexican, and four French at the Roosevelt School; two Italians at the Sheridan School. All of these speak English more or less fluently, some of them being already citizens of the United States, but in no case, so far as could be learned, are they given any work specially adapted to increasing their knowledge of American life or to improving the quality of their citizenship.

LEAVING SCHOOL PROBLEM.

San Francisco, in common with most of the cities of the country, suffers from irregular attendance in evening-school classes. No definite figures are available on this point, but according to the most trustworthy information furnished by the superintendent's office the average attendance is "approximately 50 per cent." This may be accounted for in a single phrase: "Failure to give the pupils what they want." In the day school, regular attendance may be maintained by the purely objective force of the compulsory attendance law. In the evening school no such assistance is available. Attendance here is maintained entirely through the subjective force of the pupil's own feeling. If he gets what he wants, he will come. Otherwise he will stay away.

Regular attendance at evening school demands a sympathetic teacher, a well-graded and steadily progressing course of study, good methods of instruction, a vocabulary which he can use, subject matter which is interesting to the adult mind, a class control and discipline which pay due regard to the fact that they impose upon grown men and women rather than upon children, a number of teachers sufficient to allow for considerable individual instruction, desks and seats suitable for adult use, hours that dovetail with their hours of work, and schools within easy reaching distance of their homes.

Some of these requirements are found in the classes for immigrants in the San Francisco evening schools. Many of them are not. The whole problem of school attendance resolves itself into this: "Make it worth while for the adult foreigner to come," and the classes can be filled and kept full. One has only to point to the clubs at the Monroe School or the evening classes in domestic subjects at the Bernal, Irving M. Scott, and Jean Parker Schools. In these latter schools, classes in cooking, sewing, and millinery are limited to 25 pupils each, and in one class there were said to be 75 on the waiting list. Women feel that it is worth while for them to come, and they come. Seasonal variations due to late entry in the fall and early leaving in the spring manifestly can not be avoided, but much

can be done to eliminate attendance irregularity of pupils actually enrolled.

OUTSIDE ORGANIZATIONS—YOUNG MEN'S CHRISTIAN ASSOCIATION.

Private organizations are actually coming in contact with more foreign pupils than are the public schools. In 1915-16, for instance, the city superintendent's office reported approximately 700 pupils in English-for-foreigners classes. During the fiscal year ending May 1, 1916, the Young Men's Christian Association enrolled 1,047¹ pupils in English classes for foreigners.

The following extract from the report of the immigration secretary will throw further light on the work of this organization:

English Classes.

1. Number of schools.....	16
2. Number of classes.....	19
3. Number enrolled.....	1,047
4. Total attendance.....	7,187
5. Average weekly attendance.....	158
6. Number of teachers (16 volunteer and 7 paid).....	23
7. Subjects taught: Beginning and advanced English, using Robert's system "English for Coming Americans."	
8. Nationalities represented: Austrian, Belgian, Chinese, Danish, English, Filipino, Finnish, French, German, Greek, Hebrew, Hindu, Irish, Italian, Japanese, Mexican, Norwegian, Persian, Poles, Russian, Scotch, Spanish, Swedish, Swiss.	

In addition, the association conducts a class in citizenship which meets every Monday evening throughout the year. In 1915-16, 305 pupils were enrolled.

Not only does the Young Men's Christian Association teach more foreign pupils than the public evening schools, but it maintains more classes, operates more centers where such classes are held, employs more teachers, supervises its work more effectively, and spends more time and attention in preparing the teachers for their work. All this is possible through the fact that the association employs an immigration secretary and at least one regular assistant who devote all their time to this work. The budget for the immigration department amounts to about \$3,000 per year.

In addition to the formal instruction in English and citizenship, the report of the immigration secretary for 1915-16 shows that other work of a more general educational and social nature was promoted. A citizenship reception was given July 4, 1915, for all who had attended this school during the preceding year, and was primarily intended for those who had applied for their second papers

¹ It is interesting to note the definiteness of this information emanating from the report of the Young Men's Christian Association activities in comparison with "approximately 700" as furnished by the public-school authorities.

during the year. Thirty-two lectures were held, with an attendance of 4,893 persons.

Churches, lodges, settlements, young people's societies, Young Women's Christian Association cafeteria, Chinese Young Men's Christian Association, and the association-building proper were utilized for this purpose. Socials were held in the Italian, Chinese, Japanese, and Russian churches primarily for the benefit of the pupils enrolled in the English classes in these centers. The International Club holds regular monthly meetings. The fourth annual Lincoln's Birthday Musical and Folk Festival was held in February, 1916, at the Central Young Men's Christian Association building, with about 175 persons participating in the program, who represented 20 different nationalities. Ten shop meetings have been held—four at the Union Iron Works, three at the Otis Elevator Company Shops, and three at the Illinois Glass Works—with an attendance of over 2,000.

Although the religious element was largely dominant in these shop meetings, they were nevertheless for the benefit of the foreign workmen. Although this Young Men's Christian Association work is conducted in as broad a spirit as possible, any sectarian organization labors under an unavoidable handicap. The very fact that Catholics (Roman and Greek), Orientals, and others of nonevangelical religious persuasions can be gathered in its classes and brought into its lecture halls is striking evidence of the need of the English instruction that is offered. How much greater the chance of success if this same English and citizenship instruction could be offered under the nonsectarian auspices of the public schools!

Furthermore, class instruction in these Young Men's Christian Association schools is frequently on a fee basis. Yet the foreigner is willing to pay for instruction here despite the fact that he might receive similar benefits in the public schools free of charge.

If these varied lines of activity are possible in the case of a private organization for the benefit of necessarily a limited number of people (in 1915-16 about 1,300 persons were enrolled in these classes), ought one to expect less of a great cosmopolitan city with all its non-English-speaking inhabitants as prospective pupils?

SETTLEMENTS.

There are two¹ regularly organized settlements in San Francisco, the Telegraph Hill Neighborhood Association and the People's Place.

¹ The Nurses' Settlement, Nineteenth and Iowa Streets, which was founded about 18 years ago is now closed. Although it has a well-constructed and admirably located house, the business of the organization has been terminated, and the property is about to be sold. From August, 1912, until January, 1914, a very successful school was conducted here which was patronized largely by Russians who live in the neighborhood and are employed in the Union Iron Works.

TELEGRAPH HILL NEIGHBORHOOD ASSOCIATION.

None of the regular work of the Telegraph Hill Neighborhood Association, 1736 Stockton Street, can properly be classed as educational, save in the larger sense of the word. This is primarily a social settlement, with highly important dispensary and clinical adjuncts. It is located in the very heart of the Italian quarter, and practically all the people it serves either socially or medically are Italians. Classes in sewing, dressmaking, and infant feeding, as well as a mothers' club, have been enthusiastically attended. It has opened its building to the Young Men's Christian Association for its English class for foreigners. The following quotation from the latest published report, January, 1916, is self-explanatory:

Much to our regret, the class for immigrants conducted here last year by the Y. M. C. A. has been discontinued. There is great need for workers in this field. The majority of adults with whom we deal are unable to either read or write their own language. During the past year we have come in contact with fifteen nationalities. This illiteracy is a very serious handicap to them, as it not only prevents their getting employment, but does much to weaken their influence over their children, who feel and show a certain contempt for their ignorance. Great success is being met with in the South, where negroes of advanced age are being taught to read in what is known as "moonlight schools." How much less difficult it would be to teach these young mothers and fathers, who average a much higher grade of intelligence.

PEOPLE'S PLACE.

The People's Place, an incorporated social center, 555 Chestnut Street, in the North Beach section, states its chief work to be that "of an ordinary friendly neighborhood association in a spirit of helpfulness in the ordinary affairs of life." It conducted an adult class in English for foreigners for 11 months last year (now meeting two evenings per week). Eighteen pupils were enrolled (approximately three-fourths men and one-fourth women in attendance), and instruction was given in reading, writing, arithmetic, and citizenship. Its Montessori class for foreign children is also worthy of note. Both the adult and the Montessori class were started because the need seemed crying, and the city was doing nothing along those lines for the people of this neighborhood. Other activities of the People's Place include those of the ordinary social settlement, but these fall outside the scope of this present inquiry. Italians in general, and South Italians in particular, constitute practically all its clientele.

OTHER AGENCIES.

According to the statement of Archbishop Hanna, the Catholic Church is conducting no work primarily for teaching English to foreigners. All religious organizations in the city were badly

crippled by the great fire, and the regular demands upon the church finances are such as to preclude the possibility of such work in the immediate future. Parochial schools enroll a considerable number of children from foreign families, but so far as could be learned no special attempt is made to meet the peculiar needs of the foreigner.

The Catholic Church is, however, conducting nurseries for children of working mothers, and is teaching children sewing outside school hours. It also supports a kind of visiting teacher who goes about through the homes of the children of the parochial schools. Necessarily this affects the immigrant population in part, but this work is not undertaken primarily from the foreign point of view. The Portuguese population of the diocese is largely found out on the land, while the Italians are chiefly congregated in the cities. No effort was made to visit the parochial schools of San Francisco, in view of the statement of the Archbishop noted above that the Church was making no organized, systematic attempt to reach the adult foreigner.

Contact was made with various other agencies such as the labor organizations, the Young Men's Hebrew Association, the Hebrew Immigrant Aid Society, the B'nai B'rith, the Japanese Society of America, the Italian Chamber of Commerce, and the like, but none of these organizations is attempting any work of Americanization. About a year ago an effort was made to interest the Hebrew Immigrant Aid Society in the problem of English teaching, but some of the more influential members of the organization thought that this was a matter for the public schools to handle, and nothing was done. The Young Men's Hebrew Association has recently appointed a new superintendent from the East who is now (September, 1916) surveying the field preparatory to expanding the usefulness of the organization, but there seems no immediate prospect of this association undertaking English instruction.

Some of the foreign societies, notably the Lafayette Club (French), have interested themselves in preparing men for their citizenship examination, but this work is largely due to the interest and devotion of individual members rather than to any general, concerted action on the part of the organizations themselves.

OTHER CLASSES AND SCHOOLS.

Desire to preserve the home language is a dominant characteristic among some of the foreign groups of San Francisco. Italian classes are conducted as a part of the regular work in the Hancock, Horace Mann, Monroe, Sherman, and Washington public elementary schools, where there are a large number of Italian children. In the last named, Italian children constitute about 75 per cent of the pupils,

with the remainder almost exclusively French, Mexican, and Spanish. A special teacher is employed for this work. At the Washington School, one of the schools where this foreign language work was observed, instruction is given in 2½-hour lessons per week. The teacher arranges his own course with no supervision from the superintendent's office.

Although popular demand is appeased by the presence of this instruction, it is doubtful if the progress registered is very material, especially when one considers the extremely formal character of the work and the brief time allotted to it. Italian has no place on the regular report card of the school, the records being given to the pupils by the teacher twice a year, at the end of each school term. The mixture of races and the fact that seven of the 45 boys in one of the grades also attend the Italian School¹ are perhaps a sufficient commentary on the closeness of grading.

French is taught in four elementary schools, to wit: Adams, Bryant, Columbia, and Roosevelt; German in eight schools: Adams, Bryant, Columbia, Crocker, Hamilton, Horace Mann, Pacific Heights, and Roosevelt; and Spanish in two schools: Adams and Columbia.

Afternoon French classes are conducted in 13 schools² and German classes in 13 schools³ in various sections of the city. These are maintained outside school hours under the auspices of the Alliance Française or the Deutsche Schulbund, the use of the public-school buildings being granted by the board of education to these private organizations. Small fees are charged for the instruction given therein. So far as could be learned neither of these organizations is interested in citizenship instruction, nor do they put forth any other efforts to make the people of their own colonies more fitted to become useful citizens of the land of their residence. Use of public-school buildings for purposes of this nature is therefore a question which should merit careful consideration.

FOREIGN LANGUAGE SCHOOLS.

Other schools of a private venture or institutional type also minister to the wants of numbers of immigrant families. They are staffed exclusively with foreign teachers and are designed to preserve a knowledge of the foreign tongues among children of the second generation. Among the more important of these are the Chinese

¹ See p. 562.

² Ivy View, Denman, Dudley Stone, Emerson, Grant, Grattan, Hamilton Evening (5.30 to 7 o'clock), Jean Parker, Madison, Pacific Heights, Redding, Spring Valley, Washington.

³ Bernal, Denman, Frank McCoppin, George Peabody, Grattan, James Lick, Laguna Honda, McKinley, Madison, Mission Grammar, Rochambeau, Spring Valley, Sutro.

School, conducted by the Six Companies in their building on Stockton Street; the Japanese School, 3 Pagoda Place; and the Italian School (Scuola Italiana), 678 Green Street. All these are conducted outside the hours of the public day schools, so that pupils in attendance thereat spend an inordinately long time in school per day.

CHINESE SCHOOL.

The Chinese School has 4 teachers and about 120 pupils. Sessions are held from Monday to Friday, inclusive, from 5 to 9 p. m., and on Saturday from 10 to 2 o'clock. They have a 10-months' school year, with vacation throughout the month of August, and the equivalent of another month scattered throughout the year. Pupils pay fees of \$1 per month. Although this school is said formerly to have possessed the peculiar characteristics of the schools of China under the old régime, to-day, it has taken on a decidedly modern aspect.

JAPANESE SCHOOL.

The Japanese School enrolls about 40 children and charges fees of \$1.50 per family per month.

ITALIAN SCHOOL.

The Italian School, the most important of these three, holds its sessions in the building known as Fugazi Hall, 678 Green Street. One might almost think that one had dropped down in a school in the old country, for little but Italian is heard in its classrooms. In fact, the principal of the school does not speak a word of English, and one of the other teachers knows very little of our language. There are three teachers and about 300 pupils. School is held in two sessions daily—one from 3.15 to 4.15, and the other from 4.30 to 5.30.

Each class thus consists of about 50 pupils. In August, 1910, the attendance ran about 46 or 48 per class, although later in the year this will drop down by one-third. No tuition is charged, but each pupil who can afford it is supposed to pay \$5 per year. Expenses are met in part by these fees, in part by contributions from business houses and interested individuals, and in part by a subsidy from the Italian Government. The last item amounts to 1,000 lire (\$214) out of a total annual budget of slightly more than \$1,800. Children under 10 years of age are not admitted, and the beginning of confirmation instruction in the church practically marks the close of school life for the individual child.

While all the above-mentioned instruction in other than the English language is strictly outside the scope of the present inquiry, these schools seemed to have a sufficiently direct bearing upon the general problem of immigrant education in the city of San Francisco to warrant at least passing mention.

FOREIGN SOCIETIES.

Foreign societies are the outgrowth of the same spirit that prompts the establishment of French, German, and Spanish classes, and the various schools for teaching foreign languages noted above. They play an important rôle in the social life of peoples of foreign race living in San Francisco, although so far as could be learned they are doing nothing to promote a better Americanism. Whether or not their influence is exerted in the opposite direction is difficult to say. Their members would deny this implication, and the denial would undoubtedly hold true in the great majority of instances. These societies, however, possess much latent power for good in the making of better citizens if they could only be stirred to action. One of the problems before San Francisco in particular and the nation in general is to secure the cooperation of these foreign societies in stimulating those of their members who propose to settle in this country permanently to range themselves definitely among the citizenry of the land. Various types of interest are represented: Benefit, benevolent, educational, fraternal, patriotic, religious, and social.

The Germans probably have more such societies than all the rest of the foreign peoples combined, partly because the spirit of fellowship is highly developed among Teutonic peoples, and partly because the Germans are the most numerous foreign element in the population. Over 180 German societies may be found listed in the columns of the *Demokrat*, a German daily newspaper. Many of these German societies hold their gatherings in the rooms of the German House, a fine, well-appointed building erected only a few years ago in order to provide a rallying center for the German organizations of the city. Recent estimates indicate a probable membership of upward of 15,000 in these societies.

The Croatian Unity of the Pacific, a benefit organization with some 2,000 members, by no means all of whom live in San Francisco, includes Croatian, Dalmatian, and Slavonic societies in its membership. According to information gained from the secretary of the organization there are probably 4,000 to 5,000 people representing these three races in San Francisco, with little change in their numbers since 1910. Most of them speak English and readily become assimilated. This statement is substantiated in part by the fact that these people do not congregate by themselves, but merge their identity in the mass of the population.

There are many other flourishing societies, especially among the Italians and the French, but those cited may perhaps serve as types of them all.

PUBLIC LIBRARY.

A force possessing many latent possibilities as a factor in Americanization is the public library. San Francisco libraries have not yet recovered from the effects of the fire, but a magnificent new building in the civic center is already well on its way toward completion, so that the central section of the city should be well served, at least as far as the building is concerned. Definite plans for cooperation between the library and the school are already in operation. For example, each of the seven branch librarians must visit all schools in her library district. Two story-telling hours per week are conducted in each branch, one for older and one for younger children, the attendance in some cases running as high as 200 children. Branch librarians are in charge of this story-telling.

The North Beach branch, in the heart of the Italian quarter, is the smallest in the city, yet during the year July, 1915, to June, 1916, it had a book circulation of 64,000, or just a little short of 20 per card holder per year. This particular branch has 7,216 volumes on its shelves (6,300 English and 900 Italian), so that each book circulated roughly nine times during the year, a most creditable showing. As a rule these Italian parents are anxious for their children to read English books rather than Italian, but the circulation of the foreign books unquestionably reaches families where English is not the current speech. With proper coordination of effort this branch library might be a most valuable medium for reaching the Italian people who are ignorant of English and for attracting them into the evening schools.

LABOR UNIONS.

Although labor unions in various parts of the country have interested themselves directly in the Americanization movement, little has been done on this score by the San Francisco unions. According to the statement of one of their more prominent members, much of their efforts have been devoted to a struggle for existence, and they have neither time nor energy for Americanization work. Early in its career the Marine Firemen's Union took in citizens or non-citizens indifferently, but for the past 20 years the constitution has required all applicants to be citizens or to have declared their intention to become citizens, and in any case they must be able to read and write English. This organization is thus ranged on the right side, so far as its own members are concerned, but it is making no effort to Americanize any outside of its membership.

The Alaska Fishermen's Union does not discriminate against noncitizens in its membership. For a period of two years, 1904-1906, the union refused to enroll members who had not at least declared their intention to become citizens. This simply resulted in every foreigner who wanted to join taking out his first papers, without any intention of really qualifying as a citizen. After two years' trial the union modified its regulation by formal vote, so that now candidates for admission "must be American citizens or be eligible for such citizenship." They have no negro or oriental members at the present time. As an organization this union is doing no direct work in teaching English to its members or in encouraging them to take out citizenship papers. The sympathetic attitude of the secretary, however, would seem to promise much if organized efforts were only put forth to secure the cooperation of this body.

Labor unions possess important but undeveloped sources of influence as affecting the process of Americanization. Especially is this true in San Francisco, for at the present moment the labor forces have 12 of the 18 members of the board of supervisors of the city. Any concerted municipal action, therefore, whether exerted with or without the direction of the board of education, must first pass the scrutiny of the labor party. Unionism is vitally concerned in Americanization of the foreigner, for inability to speak English is found almost exclusively among the working classes where unscrupulous agitators are prone to capitalize the language disability of their fellow countrymen.

CONCLUSIONS.

San Francisco is to be commended for having the longest evening-school term in the country, 192 days in 1914-15. It is to be hoped that no State legislation looking to the shortening of the legal year for evening schools will operate to cut down the present number of evenings in San Francisco.

San Francisco is likewise to be commended for the salary scale in force in evening schools, higher than in any other school system in the country. It should be able to command the services of the very best teachers for its schools.

By reason of the conditions just referred to, in conjunction with the State law under which an evening-school session is reckoned as a half day for grant purposes, San Francisco has an unusual opportunity to place her evening schools on an exact parity with her day schools in fact as well as in theory. Some readjustment of teaching assignments would be necessary, but no additional expense would be entailed.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

In view of the conditions brought to light by this study of the foreign population of San Francisco, and the unsatisfactory state of public facilities for the Americanization of the foreign born, the following recommendations are offered:

1. A *director of evening schools* should be appointed, who should also be a deputy superintendent of schools. Evening schools should receive his major attention, although it would be entirely feasible in a city the size of San Francisco to add to the duties of this officer such extra school responsibilities as might be involved in the organization and administration of social centers, extension work, and other kindred activities. It does not seem advisable to add playground direction as well, for that more properly relates itself to the work of the physical director, and direction of evening schools demands a more highly specialized pedagogical standard than commonly suffices for playground work, important though the latter is in its way. Neither is it advisable to assign one of the present staff of deputies exclusively to evening-school direction, thereby relieving him of some of his present duties in the day schools (although from the evening-school point of view such arrangement would be far preferable to the existing plan where the various schools are parceled out among the deputies), for in the day schools this would merely impose additional duties upon a staff already much overburdened.

This director of evening schools would thus have adequate time for supervision in the classes instead of allowing the schools to drift along with the conventional two inspections per year. The present staff is probably doing as well as could be expected under the existing system, but it is manifestly unfair to expect the deputy superintendents to spend all day in regular routine work and then expect them to supervise schools in the evening.¹

Mere casual inspection will not suffice. There is need of systematic supervision, which should be more closely followed than for the day schools, especially in view of the unusual problems which evening schools present. Many of the weaknesses of the entire evening-school system would probably have been avoided had there been a director of evening schools.

2. A new *course of study* should be drawn up, which should pay proper heed to racial differences, individual needs, and educational principles. Not only is the present course antiquated and ill-suited

¹ Evening-school assignments for the fall term, 1916, are as follows: Deputy Superintendent Heaton, Hamilton, 1; Deputy Superintendent De Bell, Horace Mann, Sherman, 2; Deputy Superintendent Cloud, Commercial, Jean Parker, Lincoln, 3; Deputy Superintendent Wagner (Miss), Humboldt, North Beach, Washington Irving, 3; Deputy Superintendent Howard, Bernal, Irving M. Scott, Monroe, Navigation, Portola, Roosevelt, Sheridan, 7.

to adult conditions, but some of the teachers do not know of its existence.

3. *Textbooks* should be selected which take due cognizance of the fact that the foreign pupils in the evening schools are practically all adults. It is preposterous to use for such pupils State texts designed for children in the lower grades of the day schools. However ignorant of English these foreigners may be, they are adults intellectually and have the interests of the adult mind. Some of these foreigners have been students in secondary schools, academies, and even universities in their native lands.

4. *Free textbooks* should be furnished.¹ Public interest is as much involved here as in the case of the day schools. The arguments are as valid in one case as in the other.

5. An adequate *system of grading* foreign pupils should be introduced. In schools with but a single class this can only be done by having two or more divisions in this class. In most of the schools with two or three classes no such grading was in evidence, nor did investigation disclose any serious attempt to divide pupils on the basis of advancement in English. Criteria of grading necessarily vary according to the number of pupils concerned. Obviously, ability to speak English gives the first test of grading, with three divisions where possible: (1) Beginners, (2) intermediate, and (3) advanced. Degree of literacy offers the second test, and may well be used in conjunction with the first. For example, in a school of three (or even two) classes graded in accordance with the first test, each class should be divided into two divisions on the basis of literacy in the native language of the pupils. Under the present conditions in San Francisco this gives as narrow a scheme of grading as is feasible. With more pupils and larger classes other standards might be applied, such as segregation of nationalities or distribution along the line of allied racial groups, sex, age, mentality, and the like.

6. *Classes in citizenship*, by way of preparation for the naturalization examination, should be organized under public-school auspices. Only one such class is now in effective operation (with one class in another school attempting to do some work of this kind), and that is seriously handicapped by the fact that the teacher is compelled to divide her time between the citizenship class and another group of badly graded foreign pupils. All efforts of teacher or principal to secure from the board of education a teacher for this citizenship class have been in vain. The board seems to refuse this teacher on the ground that the size of the class does not warrant a special teacher, and yet the class can not grow because the teacher is abso-

¹ Textbooks are presumably furnished free now, but only so long as the regular State texts are used, which are adapted to the needs of children in the day schools.

lately unable to keep the citizenship candidates occupied and handle her other pupils at the same time. At one time this school had four foreign classes, but as the teachers dropped out the numbers fell off. It is fair to infer that the falling off in attendance was an effect rather than a cause. A private organization like the Young Men's Christian Association, even with its fees, seems to have no difficulty in keeping its citizenship class reasonably full.

7. An adequate *system of record cards* should be devised and kept up to date covering pupils in day and evening schools which should show, in addition to the information usually found thereon: (a) Nativity of pupil; (b) nativity of parents; (c) name of employer, if any; (d) place of employment, if any; (e) knowledge of English on entering school; (f) degree of literacy. The regular card issued by the department is woefully defective in all these respects, although in some instances record books which are the personal property of the teachers supply some of these facts. Much of the information relating to foreign children, as well as foreign adults, can be furnished by the superintendent's office only through special inquiries in the classrooms, instead of through mere tabulation of records already on file in the offices of the various school principals.

8. *Special certificates* should be required for teaching evening classes for foreigners. If such a requirement is not feasible under existing State law steps should be taken to assure that such teachers of foreigners have particular fitness for the work. Teaching English to adults is as much a specialty as kindergartening. Experience and skill in handling first-grade children, or even high-school classes, by no means guarantees success with foreign adults. Certain criteria for the selection of teachers of foreigners might well be suggested in substantially the order of their importance:

- (a) Proved ability to teach foreigners who are beyond the compulsory school-attendance age.
- (b) Experience in teaching such foreigners.
- (c) Special training for teaching such foreigners.
- (d) General teaching ability.
- (e) Knowledge and appreciation of the foreigner, his conditions, and his national and racial ideals.
- (f) Sex, i. e., male teachers should be normally assigned to teach men, and female teachers to teach women.
- (g) Ability to speak the language of the pupil.

Training classes for the preparation of teachers of adults should be established and conducted by the director of evening schools until adequate provision for the preparation of such teachers can be made in one or more of the existing State normal schools.

10. *Systematic efforts* should be made by the school authorities to gather the non-English-speaking population into school. With few

exceptions schools have done nothing more than take care of those pupils who have come to their doors, and these few exceptions represent effort on the part of individuals rather than any concerted action prompted by the central authorities. A director of evening schools could furnish the necessary organizing ability and give the movement the impulse needed. Cooperation of employers, and civic, social, labor, industrial, and religious organizations, as well as interested individuals must be enlisted, for such a movement is too big to be carried through successfully by any single force in the community. Last, but not least, is the power of the press, both native and foreign. No efforts at increasing evening-school attendance can be fully successful without this newspaper support.

11. Some provision should be made for *work with foreign women*. In a suffrage State like California, Americanization of women is as essential as that of men. By the same court fiat which makes the husband, who has conformed to the requirements of the naturalization law, a citizen the wife is likewise admitted to active citizenship. She may nevertheless be utterly ignorant of English or the fundamental principles of our American life. Such a state of affairs should not be tolerated. Work for women means afternoon classes. The director of evening schools should arrange for these.

12. The salary schedule for the entire school system should be revised to provide for the employment of teachers, principals, and directors under the following plans of service: (1) Morning and afternoon, (2) morning and evening, (3) afternoon and evening.

13. As a matter of principle, it is believed that all education of the foreigner should be in the hands of the public educational authorities, and that private organizations, such as the Young Men's Christian Association and the like, should not feel called upon to assume this public responsibility. Where such public duty has for any reason been neglected, or where adequate opportunity has not been provided in the public education system, such private authorities of whatever type are to be commended for stepping into the breach. In face of the situation now existing in San Francisco, a working basis of cooperation should be established between the schools on the one hand and the private organizations on the other, in order that duplication of effort may be avoided and the education of the foreigner in English and the principles of American democratic life should not be allowed to suffer.

14. The board of education should take the necessary action to put these recommendations into effect and provide the funds for the execution of the same.

CHAPTER XVI.

EDUCATIONAL AND ECONOMIC VALUE OF SCHOOL-DIRECTED GARDENING.

The object of this study is to collect and interpret facts and figures in regard to the educational and economic value of school-directed gardening in the city of San Francisco. Any such study must take into consideration the work already accomplished, the amount of land available for expansion, the number of children of garden age, the present occupations of the children, the educational value of gardening, the training of the teachers for the work, and the economic value of gardening to the home.

The city of San Francisco is the marketing, shipping, and manufacturing center of the agricultural products of the whole northern half of the State. Because of its rail and water transportation, it forms the center through which the products of the land must find an outlet. The prosperity of the city is dependent in a large measure on the success of the agriculture of the surrounding country. The products of the fertile Sacramento, San Joaquin, Madera, Sonoma, and Santa Clara Valleys are shipped to all parts of the world from San Francisco. The large fruit and vegetable canneries and the commission and warehouses are dependent on the welfare of the rural sections. As the city grows, so must the country grow, and healthy growth can be assisted through teaching city and country youths of to-day to be the productive farmers and gardeners of tomorrow.

By the 1910 census it is shown that about 60 per cent of the land area in the country near San Francisco is in farms. The average value of this improved land is about \$75 per acre. Less than 5 per cent of the land area is irrigated and 13½ per cent of the farms are provided with irrigating facilities. In the 16 counties nearest to San Francisco \$6,471,780 worth of vegetables were produced in 1909.

The west coast, with its alternate wet and dry seasons and need for conserving water and for irrigation, presents an entirely different problem in crop production from the eastern part of the United States. Gardeners with experience under similar conditions can be

imported only from the Old World countries having Mediterranean climates. In the immediate vicinity of San Francisco, the gardening industry has been very largely taken over by Italians and orientals. The State of California should begin the systematic training of her own people for this work, and the city should do her share by training her young people in agriculture in order that they may follow the subject vocationally or at least may have the knowledge necessary to grow their own food.

From a geographical standpoint San Francisco presents many features which make it a difficult city for which to work out a garden plan. The consolidated city and county, occupying 46½ square miles, is situated on a peninsula surrounded by water on three sides—the Pacific Ocean on the west, San Francisco Bay on the east and north, and the Golden Gate on the north. Cut off as it is, its population will become very dense. Building lots now vacant will be filled and the tendency will be for the population to be divided into classes; the poor who through necessity must live near their work, and the wealthy who can afford to live in restricted subdivisions such as are now being opened beyond Twin Peaks Tunnel. By this it is not meant that San Francisco will be completely devoid of middle class population, especially to the west and south, but, of necessity, because the city stands first in the United States in the value of land and improvements per capita and because of its restricted area for expansion, a large part of those who wish to establish homes in more open areas will be added to the 50,000 commuters who already live across the bay. This whole east-bay section will virtually become a suburb of the greater city.

The land area of the city itself is broken by ridges and pyramid-shaped hills which have interfered with the uniformity of lot plans and often reduced the home and apartment house grounds to mere building plats. In the hillier sections outcropping ledges prevent the use of some of the land, and in the sections near the water the soil is made up largely of pure sand.

PRESENT STATUS OF GARDENING.

Although one of the deputy superintendents of schools of San Francisco has been working many years for the introduction of gardening as one of the regular activities of the schools, school and home gardening has not been given recognition in the school system.

Without recognition and financial aid, it has been impossible to organize anything like a complete city system. In schools where teachers have become interested in the subject, school gardens are being conducted, but no lasting results can be attained so long as it is left to the voluntary activities of teachers. Several schools that

started gardening have given it up because the teachers felt that their efforts were not appreciated.

One teacher has well stated what must be the history of gardening or any other school subject when recognition and financial assistance are withheld:

We had a school garden last year with some supervision of home gardens. This year we have none. The children of my room report that they have some 14 gardens but my experience has taught me that gardens without supervision are practically nothing. I visited only one garden last year that amounted to anything.

In making the survey of the possibilities for gardening, all sections of the city were visited to study soil and living conditions. Time did not permit an interview with all the school principals but many were seen, and a special effort was made to see the teachers interested in gardening. Practically all the school gardens were visited, and, in the main, all were alike. Small spaces on the school grounds or vacant lots had been secured and divided into individual plats for each child or for each class. In a few cases the garden work was done during school hours, under the direction of the room teacher, and in other schools all gardening was done after school hours and directed by volunteer teachers. Most of the gardens show lack of care but the efforts of a few teachers should be commended. At a small number of schools emphasis has been placed on home gardening, but again no systematic plan was worked out; the voluntary visits of the teachers were irregular and the work collapsed during vacation.

The superintendent of schools is much interested in the promotion of gardening in the city and has recommended on several occasions that a garden department be established in the schools. In his report for the fiscal year ending June 30, 1913, he makes the following statements and recommendations:

The superintendent's office has been working for several years to awaken an interest in the subject of home and school gardens. These efforts have been hindered by a plentiful lack of money. At first the subject was new to the teachers and principals and our efforts were met either with aversion or opposition, but little by little interest has been awakened in the subject of gardening and its educational value fully appreciated by our teaching force. In the beginning but one or two schools started a garden. Now almost every school would welcome a school garden. In answer to an inquiry sent out this year the schools requested the establishment of school gardens and stated in strong forcible language the educational value to the children.

In cities where the school garden is well established the children are found working after school hours, nursing the growth of the flowers, fruits, and vegetables. This city has about 60 acres of unscripted school lands. Much of this idle ground is near enough to schoolhouses to be used as gardens and is at present bringing no income, either financially or educationally. I want to see these lots put into school gardens, not only for the city beautiful, but that they may be of aid to the children in the directions of manual teaching.

physical exercise, and education. I propose to continue my appeal for the development and extension of this type of school activity.

I would recommend that a supervisor of gardening be appointed to assist and encourage the department in developing and directing this work.

We have a large amount of vacant school ground which may be utilized for gardens, and many of our present buildings have large grounds, a portion of which the principals petition to have made into gardens.

Through the efforts of the superintendent and a deputy superintendent, much interest in gardening has been aroused among the teachers. The chairman of the school garden committee, an enthusiastic garden teacher, makes the following report:

Last spring the city beautiful convention was reorganized. The details of the reorganization do not belong here. Suffice it to say that the reorganization was in the interest of efficiency. This time they included school gardens in the convention, and the writer was made chairman of the committee. This committee consists of 20 principals and teachers in the department and one settlement worker, Mrs. Artleda, of People's Place. We are all working, according to our several abilities, to have established in San Francisco a well-organized system of school gardens. In the meantime, we are making full use of the inadequate equipment that we can command. This is a brief survey of the work already accomplished.

Every school that has taken up this work at all has emphasized the home gardens. There are gardens organized at school in order that home gardens may be enlarged and increased. I look forward to a time when this home-garden work will be a regular part of the curriculum, the work done under direction, inspected at regular intervals, and school credit allowed for it.

We must give the children of the cities an opportunity to acquire an education that will fit them for the development of California's greatest industries—agriculture and horticulture. We must endeavor to stem the mad rush from the farm to city life and, through education, turn the people of our already overcrowded cities back to the more peaceful, contented, prosperous, and healthful life of the scientific cultivator of the soil.

When parents and children have learned to love these flowers, they will soon find other means of beautifying their homes. Within a few years each school-house should have a school garden, large if possible, small if need be, but a school garden of some kind. A garden 25 feet square may serve as a demonstration where children are taught lessons in gardening to be applied at their homes.

An interesting garden-club project was carried on under the direction of the chairman of the school-garden committee, an account of the purpose, terms, and results of which follow:

DRY-FARMING CLUBS.

Purpose.—To raise potatoes on vacant lots in San Francisco by dry-farming methods and to plant around the margin of the lot drought resistant flowers, such as marigolds, nasturtiums, hollyhocks, poppies, petunias, or sweet peas. This will help to improve the appearance of our city and at the same time give the gardener a crop that pays him for his work. A business man of San Francisco has pledged the necessary funds to establish the work.

Terms.—The materials for the fence, the seed potatoes, and the tools will be furnished. The lots will be plowed. The street cleaning department will

furnish street-sweepings for fertilizer. The pupil must put up the fence or get some one to do it. A set of tools consists of a pick, a spreading fork, a hoe, and rake. Six gardeners will have one set of tools. That gives the set of tools to each gardener for one day in the week. A dry farmer may, if he prefers, furnish his own equipment complete. If he wishes to enter the potato contest he must plant the same kind of potatoes.

Good strong tools will be furnished. These tools are the permanent property of the clubs and must be properly taken care of. Tools that are lost or broken must be replaced. A market will be found for the crops. If any dry farmer wishes to give his crop to his parents, he may do so.

All the dry farmers will be required to pay for their seed potatoes out of their crops. If any dry farmer wishes to take a part of his lot for other vegetables he may do so, but he must furnish his own seed. All the tap-rooted vegetables, such as turnips, carrots, parsnips, radishes, beets, and kohi rabi can be raised by dry-farming methods. The leaf vegetables that are not sensitive to cold, such as lettuce, cabbage, cauliflower, and swiss chard, can be raised by dry-farming methods, and, if established early, will be ready for the market by the time the winter rains cease. Garden peas, horse beans, and onions planted before Christmas make very good crops.

In order to develop scientific and skillful methods of cultivation, we will have a potato contest next August, when the potato crops will be ready for the market. The contest will probably be held on the Exposition grounds. Prizes will be awarded. The potatoes will be judged by a score card. The quality of the potatoes and the yield will be the important factors. Full details will be given in regard to the contest later on.

The University of California offers a correspondence course on potato culture. We hope that many of the club members will take up this correspondence course.

Thirty-nine boys and one girl completed the work. Largest lot was 50x110. There were three centers for the dry-farming clubs, Glen Park School, Horace Mann Vocational School, and Peoples Place, a College Settlement near North Beach, 555 Chestnut Street. There was a little more than 2 acres of ground cultivated by the clubs. Miss Wade, the principal, visited nearly all of the plots, as did also Rev. D. O. Crowley, of the playground commission. Some of the crops were good, some fair, and some poor. There was a bitter, blasting gale of wind that broke the leaves and vines in the open spaces. From the standpoint of the children, the work was successful.

DISTRICT STUDIES.

Because of the marked variation in living condition, soil, and topographic features it has been found more convenient to intensify this study by dividing the city into seven districts. The short time available for actual field work makes it impracticable to define sharply the boundary lines of each.

Each district has been studied under five headings, viz, general aspects, living conditions, occupations of children, economic value of gardening, and agricultural interests of the home that might become school directed projects. Four tables for each district accompany the text.

Averages in the totals of district and summary tables, often referred to in the text, were computed from school and district averages and not from individual reports.

NORTHEAST SECTION—DISTRICT NO. 1.

Schools: Hancock, Sarah R. Cooper, Jean Parker, Garfield, Washington Grammar, Washington Irving, Oriental, and Ungraded.

The foreign quarter, commonly spoken of as the North Beach section, including Chinatown and the Latin Quarters, forms a city unto itself. Cut off as it is by the bay on the north and east and by ridges on the south and west, this district has a social life of its own which merits careful consideration.

Living conditions (Table 186).—Because of the natural barriers to expansion, this district has become very congested. Flats, tenements, and apartments crowd each other for space, and the open areas are found in many cases to be only where high banks and outcropping ledges have made building too costly. The building lots in this section vary in size from 25 by 100 to 30 by 137½ feet, but even the backs of the longer lots are generally used for some kind of structure.

TABLE 186.—Living conditions, District No. 1.

Schools.	Number of children reported.	Number living in flats, tenements, and apartments.	Size of building lots.	Children who could have garden in plots 20 by 20 feet.	Are there small vacant lots for all children not having back-yard space?		Are there large plots for school gardens?	
					Yes.	No.	Yes.	No.
Hancock.....	621	376	25 by 100	63	3	10	3	11
Sarah R. Cooper.....	312	195	25 by 125	10	1	5	2	4
Jean Parker.....	541	309	25 by 137½	51	0	11	0	11
Garfield.....	343	195	25 by 137½	24	2	5	1	6
Washington Grammar.....	577	345	30 by 137½	47	1	9	1	10
Washington Irving.....	214	190	25 by 100	8	2	3	1	3
Oriental.....	440	344	30 by 137½	0	0	7	0	6
Ungraded.....	25	21	25 by 100	0	0	1	0	1
Total.....	3,073	1,889		205	9	51	6	52

¹ From teachers' reports.

A study of the fire insurance map of the district was deceptive; as it shows that, in the 15 blocks surrounding the Hancock School, there are 319,175 square feet of vacant ground, but a visit to the section showed that at least half of this area was outcropping ledge and steep banks which could not be used for gardening. On this basis it would not be possible to find plots larger than 10 by 12 feet for the 621 children of the upper grades of the Hancock School, and these lots would be scattered and the gardens hard to protect. Without doubt a more careful study of the whole district would reveal enough space for each child to have a small garden since, to the east, near the Garfield School, there are larger areas.

From the eight schools of this district reports were received from teachers representing 3,073 children of the fourth, fifth, sixth, sev-

enth, and eighth grades. Of this number of children, 1,889 lived in apartment houses, tenements, or flats where the back yard, if any, must be used by two or more families. In the case of only 205 children was there as much as 400 square feet of home back-yard space.

Occupations of children (Table 187).—In studying the occupations of the children of the district it was found that, of the 1,634 boys, 362 worked after school hours, earning an average of \$2.20 per week, and 277 worked during the vacation, earning \$3.25 per week. More than half of these boys are engaged in selling papers, many being stationed on Market street and other principal down-town sections, often in bad environments.

TABLE 187.—Occupations of children, District No. 1.

Schools.	Reporting.		Children earning money outside home.								Children working at home.			
	Boys.	Girls.	Boys.				Girls.				Boys.	Girls.	Total.	
			After school.	Average earnings per week.	Vacation.	Average earnings per week.	After school.	Average earnings per week.	Vacation.	Average earnings per week.				
Hancock.....	364	257	72	\$2.37	44	\$3.73	1	\$1.50	5	\$4.33	6	59	94	36
Sarah B. Cooper.....	163	149	14	1.70	9	2.50	1	1.00	5	3.50	9	5	8	16
Jean Parker.....	0	541	0									0	71	20
Garfield.....	148	195	34	1.87	21	2.50	14	1.00	12	3.50	0	0	7	38
Washington Grammar.....	577	0	183	2.38	148	3.45	0		0		14	101	0	0
Washington Irving.....	107	107	21	2.25	22	3.33	0		2	5.00	5	19	4	3
Oriental.....	256	184	34	2.37	27	3.41	49	3.50	45	3.50	7	9	15	20
Ungraded.....	19	6	4	2.50	4	3.00	0		0		10	0	14	0
Total.....	1,634	1,439	362	2.20	277	3.25	72	1.76	75	3.96	8	227	9	133

Of the others who work, the chief occupations are in stores, as delivery boys, or work for private families, the latter principally from the Oriental School. Seventy-two of the 1,439 girls work after-school, and 75 are employed during vacation. More than half of this number is made up of Oriental School girls, who are engaged in domestic service in American families. These girls earn an average of \$1.76 per week after school and \$3.96 during the vacation.

The city home of the congested quarter does not often offer an opportunity for occupation of the children. Of the 1,634 boys, only 227 have definite home duties for which they are paid, and all are engaged in home duties on an average of only a little over one hour per day. The 1,439 girls work at home on an average of 9 hours per week, and 133 have definite occupations in the home, for which they are paid.

Economic value of gardening (Table 188).—In any consideration of the value of children's gardening to a district, family vegetable food costs must be considered. The teachers were asked to ascertain for their district the cost of vegetable foods for a family of five persons for one year. The estimates received range from \$35 to \$81.18, with an average of \$57.79.

TABLE 188.—Economic chart, District No. 1.

Schools.	Children in school.	Average daily attendance.	Annual vegetable food cost for family of five.	Following the fruit.			Children leaving school to work.	
				Number.	Date of leaving school.	Date of return to school.	Number.	Cause.
Hancock.....	640	596	\$78.95	0	.....	.....	20	Need.
Sarah H. Cooper.....	850	706	65.00	0	.....	.....	0	.....
Jean Parker.....	784	713	57.55	2	May, June	Aug., Sept.	3	Do.
Garfield.....	890	804	40.48	20	Feb. 15....	Oct. 1.....	0	.....
Washington Grammar.....	761	699	46.20	0	.....	.....	16	Do.
Washington Irving.....	520	428	35.00	19	Mar., Apr.	Sept., Oct.	20	Do.
Oriental.....	685	575	81.18	50	July.....	Sept.....	4	Do.
Ungraded.....	27	20	60.00	0	.....	.....	0	.....
Total.....	5,167	4,541	57.79	91	Feb.....	Oct.....	68	.....

Several schools were visited and the children questioned on occupation, home interests, etc., and, among others, the question in regard to the cost of vegetable foods was asked in several schoolrooms. As was expected in most sections of the city, the children had very little idea of the money value of food, but in the upper grades of the schools of the North Beach section, quite to the surprise of the questioner, the older girls got out pencil and paper and figured so much per day, month, year, and in three rooms of different schools an answer of \$68 was received and many other answers varied only slightly.

On further inquiry it was found that the fathers of these children were often fishermen who were away from home for weeks at a time, the mother worked in canning and bag factories, and the girls became heads of the families, being intrusted with the money for the purchase of food, but every cent must be accounted for. These children, with small carts, go to the wharf as early as 4 o'clock in the morning to purchase of Italian vegetable gardeners who come across the bay, and thus the vegetables bought are superior in freshness and less in price than the same commodity would be if purchased in another part of the city.

In this section there are many needy families, and from 60 to 70 of the children leave the grades each year just as soon as the age law will permit. About another 100 children leave school in February, March, and April to go to fruit-picking camps and do not return to

the city to school until from the last of September to the first of November.

Agricultural interests of the home that might become school-directed projects (Table 189).—Considering the congestion of this district, the children report a relatively large number of gardens at their homes. Of the 3,073 children, 501 state that a garden of flowers or vegetables is cared for by their parents or by themselves. Nearly all of the children state, however, that these gardens are so small that they have little economic significance. Poultry is kept at the homes of 108 children, pigeons are kept at 115, and rabbits at 67. In these reports on gardens, poultry, pigeons, and rabbits there are without doubt duplications caused by the school attendance of several children from the same family.

TABLE 189.—*Agricultural interests of the home that might become school directed projects. District No. I.*

Schools.	Number of children reported.			Number of children having—			
	Boys.	Girls.	Total.	Gardens.	Poultry.	Pigeons.	Rabbits.
Hancock.....	341	257	621	133	18	20	15
Sarah B. Cooper.....	163	149	312	45	11	8	4
Jean Parker.....	0	541	541	114	9	15	9
Garfield.....	186	195	343	85	35	24	14
Washington Grammar.....	577	0	577	105	24	33	20
Washington Irving.....	177	107	214	44	11	7	4
Oriental.....	256	184	440	2	0	8	1
Ungraded.....	19	6	25	4	0	0	0
Total.....	1,634	1,439	3,073	510	108	115	67

NORTH CENTRAL SECTION—DISTRICT NO. II.

Schools: Yerba Buena, Winfield Scott, and Sherman.

The district bounded by the Presidio, Golden Gate, and North Beach district has enough elements of difference from the territory to the south to warrant separate consideration. The soil is a light, sandy loam, and in most cases is level. Some very productive gardens were found in back yards and vacant lots.

Living conditions (Table 190).—A study of 12 blocks near the Yerba Buena School shows a total of 37 acres of vacant lots and back yards that could be used for gardening. In only 4 out of 35 blocks was less than 5,000 square feet of usable ground found, and the average was over 12,000 square feet per block. While the building lots are small, averaging 25 by 137½ feet, the houses do not take up as much space as in many other districts, and thus there is more back-yard room.

TABLE 190.—Living conditions, District No. 11.

Schools.	Children reported.	Number living in flats, tenements, and apartments.	Size of building lots in the district.	Number of children who could have garden plots 20 by 20 feet.	Are there small vacant lots for all children not having backyard space?		Are there large plots for school gardens?	
					No.	Yes.	No.	Yes.
Yerba Buena.....	314	113	25 by 100	55	2	3	1	4
Winfield Scott.....	141	41	50 by 137	37	0	5	0	3
Sherman.....	211	162	30 by 137½	45	3	2	4	1
Total.....	746	316		137	5	10	5	8

Of the 746 children who reported from the three schools of the district, 316, or 42.3 per cent, lived in flats, tenements, or apartments. If individual project gardening was started in this district, vacant lots could be found for about one-half of the children. The teachers report that 137 of the children have 400 square feet each of garden space in their own back yards. Eleven of the teachers state that there are enough vacant lots so that gardens might be provided for all children, and 10 state that there are not enough such spaces; 14 teachers report large vacant lots near the school that could be used as school gardens.

Occupations of children (Table 191).—The greater number of boys who are employed outside the home are engaged in selling and delivering newspapers. The next occupation of importance is work in stores or delivering goods from the small groceries of the neighborhood. Of the 363 boys who were reported by the teachers of the 3 schools 85 work after school and 63 during vacation, earning \$2.09 and \$3.02 per week, respectively. Only 5 girls work after school, earning an average of \$1.23, and without doubt the same individuals worked during vacation. Forty-two boys had definite home duties for which they were paid. All of the boys worked an average of 9 hours per week each, and 45 girls were paid for home work and worked an average of 8 hours per week. The home duties of boys consisted largely of errands, care of lawns, and in a few cases in the care of gardens and poultry. Practically all girls helped with housework.

TABLE 101.—Occupations of children, District No. 11.

Schools	Reporting.		Children earning money outside home.								Children working at home.			
	Boys.	Girls.	Boys.				Girls.				Boys.	Girls.		
			After school.	Average earnings per week.	Vacation.	Average earnings per week.	After school.	Average earnings per week.	Vacation.	Average earnings per week.				
Yerba Buena.....	150	164	42	\$1.72	27	\$1.60	5	\$1.21	3	\$2.01	7	23	6	28
Winfield Scott.....	64	73	12	2.39	18	3.10	0	0	1	6.00	12	9	10	7
Sherman.....	145	146	31	2.07	18	2.35	0	0	0	0	11	11	9	10
Total.....	363	381	85	2.09	63	3.02	5	1.23	4	4.46	9	42	8	43

Economic value of gardening (Table 192).—The average cost of vegetables for a family of five persons for one year, as estimated by the teachers of this district, is \$78.92. No special attempt was made to obtain estimates of vegetable food costs from housewives, but many of the teachers' reports appear to be based on investigation and seem to be fairly accurate. Only 6 children are reported as leaving school early to go to fruit-picking camps, and 15 to go to work. In all cases the cause of leaving school to work was given as "family need."

TABLE 192.—Economic chart, District No. 11.

Schools	Total number children in school.	Average daily attendance.	Annual vegetable food cost for family of five.	Following the fruit.			Leaving school to work.	
				Number.	Date of leaving school.	Date of return.	Number.	Cause.
Yerba Buena.....	513	470	\$65.00	6	July.....	Sept.....	12	Need.
Winfield Scott.....	211	207	78.75	0			3	Do.
Sherman.....	575	498	91.00	0			0	Do.
Total.....	1,319	1,175	78.92	6			15	

Agricultural interests of the home that might become school-directed projects (Table 193).—In many of the homes of this district the number of activities of the home that may become educative and productive projects for children is large. Of the 746 children reporting, some kind of garden is cared for at 203 homes, 66 have poultry, 16 pigeons, and 36 rabbits. Except for the care of indi-

vidual or pairs of animals as pets, the children seem to have little part in what to them may be made the most interesting feature of the home life.

TABLE 193.—*Agricultural interests of the home that might become school-directed projects.*

Schools.	Number of children reported.			Number of children having—			
	Boys.	Girls.	Total.	Gardens.	Poultry.	Pigeons.	Rabbits.
Yerba Buena.....	150	164	314	72	25	7	7
Winfield Scott.....	68	73	141	61	18	3	14
Sherman.....	145	146	291	70	13	6	18
Total.....	363	383	746	203	66	16	39

WESTERN SECTION, DISTRICT NO. III.

Schools: Francis Scott Key, Lafayette, Rockhamenú, Jefferson, Sutro, Columbus, Laguna Honda, Frank McCoppin, George Peabody, Roosevelt, Madison, and Parkside.

This large area, extending from the Pacific Ocean to a line drawn north and south at the eastern edge of Golden Gate Park, has been considered as one district. If the ocean side section of this district were to be immediately compared with the eastern, marked variation would be shown, but, as the change in soil and living conditions from west to east is gradual, the whole falls naturally into a single subdivision. On the west the soil is of a typical sand-dune formation. Very little humus is contained in this soil, and a great quantity of water is now necessary to support vegetation during the dry summer. Moving eastward it is found that the soil conditions improve naturally or have been improved by man. A study of the beauties of Golden Gate Park demonstrates that, if the people were taught to improve the soil and care for growing plants, this section might be made one of the most productive and attractive of the city.

Living conditions (Table 194).—Near the Lafayette and Francis Scott Key Schools there are large open tracts of sandy land, and throughout the district there are many vacant lots. Spaces large enough for school gardens could be found near all of the schools, and were all of the vacant lots of the district turned into gardens, all the upper-grade children might be given large plots. A study of the fire insurance plat maps of 12 blocks near the Sutro School showed that there were slightly over 11½ acres of vacant lots. The map used had not been completely brought down to date, but examination of the blocks showed that few of the lots have yet been built upon. The school department owns a large lot near the Sutro School which was used as a school garden for several years, but

was finally abandoned. Lots within walking distances of other schools of the district are also owned by the board of education, and at present no use is being made of this land.

TABLE 134.—Living conditions, District No. 111.

School	Children reported.	Number living in flats, tenements and apartments.	Size of building lots in the district.	Number of children who could have garden plots 20 by 20 feet.	Are there small vacant lots for all children not having a back-yard space?		Are there large plots for school gardens?	
					No.	Yes.	No.	Yes.
					Francis Scott Key	204	21	25 by 120	88	1	5	1	3
Lafayette	150	7	25 by 100	93	0	5	0	8
Rochambeau	438	74	25 by 120	180	3	7	3	7
Jefferson	207	26	25 by 120	100	2	4	2	4
Sutro	675	97	25 by 120	169	5	7	8	2
Columbus	98	17	25 by 120	37	0	3	0	3
Lacuna Honda	621	156	25 by 120	209	7	6	7	2
Frank McCoppin	555	134	25 by 100	98	0	9	0	9
George Peabody	263	62	25 by 120	81	5	1	5	3
Roosevelt	458	152	25 by 120	108	4	7	8	3
Madison	436	134	25 by 137	123	1	8	1	8
Parkside	30	4	40 by 120	20	0	1	0	1
Total	4,035	865		1,306	28	63	35	60

The real-estate subdivisions of this whole district have been divided into building lots 25 by 100 feet. In most cases only a single lot has been used for a dwelling and the uncovered yard space is small, especially in the eastern section. Questionnaires were filled out by 98 children of the Francis Scott Key School, of which number 27 had no yard space, while the other 71 averaged 1,441 square feet. In the Sutro School answers were received from 73 children, 30 of whom had no yard space at their homes. The other 43 averaged 1,317 square feet, but, if a large tract at the home of one child is eliminated, this average falls to 178 square feet.

The number of children living in flats, tenements, and apartment houses increases in direct ratio to the distance from the ocean. The Lafayette, Francis Scott Key, and Jefferson Schools have the lowest percentage of children living in dwellings where the yard must be used by two or more families, and the Roosevelt and Madison the highest. Even in the sections at the far edge of the city the number living in flats and apartments is abnormally high. From figures furnished by the teacher it is shown that 21.8 per cent of the children live where the yard space is common property, and only 30.2 per cent have space 20 by 20 feet for a back yard of flowers and vegetables. The teachers' estimates as to the number of vacant lots available vary markedly. The majority, however, state that there are enough

vacant lots so that each child could have a large garden, and also that there are large spaces near the schools for community school gardens.

Occupations of children (Table 195).—In the study of the occupations of children it was found that of the 2,012 boys in the schools 393 work outside the home to earn money after school and 273 during the vacation. The average earnings per week were \$1.78 for afterschool work and \$2.95 during the vacation. The largest number of the boys were engaged in delivering and selling newspapers, and working in stores was the second employment in importance. Of the 2,023 girls who were reported, 24 worked after school, earning an average of \$1.40, and 19 during the vacation, averaging in earnings \$2.09. Of boys, 510, and of girls, 442 claimed to have some definite home duties. The average number of hours of home work per week was five and one-half, or less than one hour per day for both boys and girls.

TABLE 195.—Occupations of children, District No. III.

Schools	Reporting.		Children earning money outside home.								Children working at home.			
	Boys.	Girls.	Boys.				Girls.				Boys.		Girls.	
			After school	Average earnings per week.	Vacation.	Average earnings per week.	After school.	Average earnings per week.	Vacation.	Average earnings per week.	Average number of hours home work per week.	Number paid for home work.	Average number of hours home work per week.	Number paid for home work.
Francis Scott Key.....	108	96	17	\$1.83	22	\$2.25	0	0	7	\$1.62	7	17	8	17
Lafayette.....	61	81	18	1.32	15	1.83	0	0	0	0	6	16	6	32
Rochambeau.....	236	202	60	2.09	35	3.10	0	0	0	0	6	52	6	30
Jefferson.....	58	109	13	1.00	15	2.10	0	0	1	1.00	5	35	5	29
Sutro.....	285	290	40	2.46	22	3.75	3	\$1.50	1	2.00	6	114	5	83
Columbus.....	48	50	3	.70	3	3.50	0	0	0	0	21	2	4	4
Lucoma Honda.....	303	318	85	1.50	83	3.50	5	2.10	4	2.70	5	83	6	92
Fran's McOppin.....	287	268	47	1.66	10	3.10	0	0	0	0	5	58	3	34
George Peabody.....	123	140	30	1.70	11	2.03	1	.50	4	3.25	8	9	10	3
Roosevelt.....	220	238	53	2.31	34	3.65	15	1.50	2	2.00	8	54	6	62
Marrison.....	220	207	27	2.85	23	3.66	0	0	0	0	3	62	3	60
Parisido.....	14	16	0	0	0	0	0	0	0	0	4	2	7	0
Total.....	2,012	2,023	393	1.78	273	2.95	24	1.40	19	2.09	51	510	51	442

Economic value of gardening to the home (Table 196).—The greater part of the vegetables purchased in this section are obtained from hucksters and from large and small grocers. The whole section is interspersed with small grocery and provision shops. The housewives interviewed (the number is too small to base definite conclu-

sion) in the larger number of cases purchased most often from hucksters, and the surplus was bought at local stores. The cost of vegetables, as averaged from the teachers' reports, for a family of five for one year was \$81.68, the average for the individual schools varying from \$46.50 to \$114.80. The housewives placed the vegetable cost between \$60 and \$112, with about \$85 most commonly given. Only 3 children were reported as leaving school early to go to fruit-picking camps, and only 21 left school at the legal age to work. In the case of all but one school, the cause given for leaving school to work was "family need."

TABLE 196.—Economic chart, District No. 111.

Schools.	Children in the school.	Average daily attendance.	Annual cost of vegetable foods for family of five.	Following the fruit.			Children leaving school to work.	Cause
				Number.	Date of leaving school.	Date of return to school.		
Francis Scott Key....	278	251	\$76.33	0	At close of school	At opening of school	0	
Lafayette.....	212	211	94.40	0			0	
Rockland-Cau.....	775	704	83.56	0			3	Need.
Jefferson.....	262	236	72.80	3	June 1.....	Aug. 30.....	0	
Butro.....	842	747	102.63	0			5	Wanted to work; need.
Columbus.....	230	204	46.50	0			0	
Laguna Honda.....	799	733	91.44	0			0	
Frank McCoppin.....	781	717	84.50	0			1	Need.
George Peabody.....	453	427	83.36	0			3	Wanted to work; need.
Roosevelt.....	618	566	69.90	0			12	Need.
Madison.....	588	544	114.80	0			0	
Parkside.....	54	46	50.00	0			0	
Total.....	5,914	5,386	81.68	3			24	

Agricultural interests of the home that might become school-directed home projects (Table 197).—Because of the more open character of a large part of this district, the opportunity for home interests is greater than in most other parts of the city. The study of the out-of-door activities in which the children might take part gave the following results: Of the 4,035 children reporting, 1,430 of the homes had gardens, 472 poultry, 128 pigeons, and 211 rabbits. In this list there is without doubt much duplication, both in the different interests and also in the case of several children from the same family.

TABLE 197.—Agricultural interests of the home that might become school-directed projects, District No. III.

Schools	Number of children reported.			Number of children having—			
	Boys.	Girls.	Total.	Gardens.	Poultry.	Pigeons.	Rabbits.
Francis Scott Key.....	108	90	204	98	47	12	25
La Fayette.....	61	80	150	62	32	3	9
Rochambeau.....	230	202	438	164	69	12	40
Jefferson.....	98	100	207	96	42	4	16
Sutter.....	285	290	575	219	55	19	22
Columbus.....	48	50	98	51	32	7	6
Laguna Honda.....	303	378	621	223	83	21	37
Francis Mcoppin.....	287	268	555	147	53	18	16
George Peabody.....	123	140	263	38	6	6	6
Roosevelt.....	220	238	458	169	55	20	27
Wilson.....	229	207	436	159	8	6	6
Parkside.....	14	16	30	4	0	0	0
Total.....	2,012	2,023	4,035	1,430	472	128	21

From personal investigation and questions asked the children, it appears that only a small percentage of the children own or have definite duties in caring for the gardens or animals as an economic project in the home. In most cases where plants or animals are reared for profit, the parents assume complete control and any work the children may do becomes drudgery through lack of ownership or partnership.

THE CENTRAL SECTION, DISTRICT NO. IV.

Schools: Grant, Pacific Heights, Spring Valley, Emerson, Redding, Hamilton Intermediate, Adams, Henry Durant, Golden Gate, Fremont, John Swett, Andrew Jackson, Benman, Crocker Intermediate, Moulder, Dudley Stone, Hearst, McKinley, Grattan, Everett, and Douglas.

This district is broken by ridges and peaks which have divided it into sections having considerable individual differences. As seen from the hills of La Fayette and Buena Vista Parks, however, the whole has enough points in common to warrant consideration as one district. The wealthier section is on the northwest, where more detached houses are to be found. The soil of the lower levels is sandy, while that of the hills and ridges is somewhat heavier.

Living conditions (Table 198).—As a whole the district is rather closely built. The building lots are 25 by 100 or 25 by 137½. There are many flats and apartment houses and hotels. Of the 8,316 children reported, 3,009 live in apartments, flats, or tenements, where the yard space must be used by two or more families. Play space for children is only to be found in streets, vacant lots, and parks. A large number of vacant lots are still to be found but in the east section some are still encumbered by ruins and basement walls left by the fire, and are not usable for gardening. Some of the larger lots would make very satisfactory gardens.

TABLE 108.—Living conditions, District No. IV.

Schools	Children reported	Number living in flats, tenements, and apartments	Size of building lots in the district	Number of children who have garden plots 20 by 20 feet	Are there small vacant lots for all children not having back-yard space?		Are there large plots for school gardens?	
					No.	%	No.	Yes
Grant	370	105	25 by 100	112	3	2	3	3
Pacific Heights	461	159	25 by 100	79	12	0	12	0
Spring Valley	874	315	25 by 137	75	11	0	11	0
Emerson	398	121	25 by 125	54	5	0	5	0
Residing	391	218	25 by 137	53	6	1	6	1
Hamilton Intermediate	432	156	25 by 120	90	6	1	6	1
Adams	504	292	37 1/2 by 125	37	4	4	7	1
Henry Durant	278	183	25 by 120	51	6	0	5	1
Golden Gate	198	136	25 by 100	17	5	0	5	0
Fremont	564	244	25 by 125	57	11	0	11	0
John Swett	575	304	25 by 132	42	8	3	6	7
Andrew Jackson	21	16	25 by 132	21	0	1	1	0
Denman	350	191	25 by 137	101	4	4	5	3
Tracy Intermediate	541	169	25 by 100	182	9	3	7	3
McKider	107	84	25 by 120	6	1	1	1	1
Dwight Stone	413	189	25 by 100	45	7	0	7	0
Hears	449	223	25 by 120	41	9	1	10	1
McKinley	536	223	25 by 100	154	2	5	2	1
Grattan	537	211	25 by 125	156	5	4	2	0
Everett	981	315	25 by 100	176	8	7	11	0
Douglas	227	76	25 by 120	72	4	1	5	0
Total	8,316	4,300		1,627	128	61	128	63

The majority of the teachers think it would be impossible to obtain enough small vacant lots for gardens for all older children, and also that the money value of the lots is so high that, while there are enough large plats, they could not be obtained for school gardens. The back yards are small, and many are paved or board covered. Of the 8,316 children reported, the teachers estimate that only 1,627 have 400 square feet of back yard space which could be used for gardening.

Occupations of children (Table 109).—Something more than half of the school boys of this district who have occupations outside the home are engaged in the selling and distribution of newspapers. Other important occupations are work in stores, principally local drug and grocery stores, store delivery, and message service. The girls earn money by helping in stores, housework, and caring for small children.

TABLE 100.—Occupations of children, District No. 14

Schools	Number reported		Children earning money outside home.						Children working at home.					
			Boys.			Girls.			Boys.	Girls.				
	Boys	Girls	After school.	Average earnings per week.	Vacation.	Average earnings per week.	After school.	Average earnings per week.	Vacation.	Average earnings per week.	Average number of hours—Home work per week.	Number paid for home work.	Average number of hours—Home work per week.	Number paid for home work.
Grant	201	169	24	\$1.87	59	\$2.97	0	0	0	0	4	44	4	13
Pacific Heights	247	214	45	3.08	56	3.10	0	0	2	0	4	44	4	42
Spruce Valley	251	283	71	1.60	49	2.75	4	2.00	1	1	1	25	25	26
Rimmon	168	148	28	1.50	50	2.66	1	1.50	1	1	1	15	15	31
Radding	164	157	36	2.18	64	4.12	2	2.50	1	1	1	15	15	10
Hamilton Intermediate	204	224	62	1.95	52	3.28	0	0	1	1	1	12	12	22
Adams	248	252	53	1.46	33	2.64	0	0	0	0	3	31	31	23
Henry Durant	150	128	39	1.81	49	2.31	1	1.00	3	3.25	5	34	34	23
Madison Gate	97	101	14	1.31	17	2.21	0	0	0	0	0	6	6	3
Fremon	288	286	40	2.04	39	2.67	0	0	0	0	5	6	6	3
John S. Lee	204	271	105	1.94	105	3.10	4	2.50	5	3.41	5	35	35	41
Antioch Jackson	14	7	0	0	0	0	0	0	0	0	0	0	0	0
Dennin	0	350	0	0	0	0	2	.55	2	4.20	0	0	0	0
Crocker Intermediate	282	262	85	1.96	94	3.79	5	2.17	5	3.08	65	49	64	27
Moulder	66	51	6	1.38	6	2.00	0	0	0	0	3	13	5	6
Dudley Stone	166	147	15	1.18	20	1.36	0	0	0	0	0	4	4	4
Heard	248	201	43	2.26	38	3.28	1	1	1	1	7	24	8	17
McKinley	327	309	76	1.45	72	2.44	9	1.50	18	1.46	54	111	74	102
Grattan	275	262	53	1.54	62	2.49	0	0	0	0	6	85	5	66
Evelitt	328	334	62	2.08	62	2.96	1	1.00	2	1.25	5	34	6	25
Douglas	104	123	1	1.25	4	1.25	0	0	0	0	4	23	4	23
Total	4,113	4,203	870	1.72	859	2.69	30	1.69	42	2.31	5.3	773	5.9	650

Of the 4,113 boys from whom statistics were collected by the teachers, 870 worked after school hours, earning an average of \$1.72 each per week, and 859 had vacation employment, earning an average of \$2.69 each. Thirty girls who worked in the out-of-school hours earned an average of \$1.69 each, and in vacation 42 averaged \$2.21 in earnings. The average number of hours of employment per week of boys in the home was 5.3, and of girls, 5.9; and 773 boys and 650 girls received small sums of money for work at home. In a few cases this work is such that it requires a definite amount of time each day, but more often the tasks are irregular, not occurring oftener than once a week.

Economic value of gardening.—The teachers' estimates of the value of vegetables used by a family of five persons per year in this district average \$88.18 for one year. Without doubt this estimate is fairly accurate as an average for the district. Nineteen children are reported as earning money by picking fruit, either leaving school before the close of the school year or returning after its opening. Of the 99 children who left school to work during the

past school year, need of the family, retardation, ill health, desire to work, and dislike of school were given as the reasons for leaving."

Agricultural interests of the home that might become school-directed projects (Table 200).—Of the things kept at the homes that might furnish definite occupation and form habits of industry in the children, there are 2,166 gardens, 263 homes keeping poultry, 189 keeping pigeons, and 252 keeping rabbits. As is the case in many other districts, the number of animals kept for economic purposes is small, and those kept as pets have a nature study rather than an occupational value for the children.

TABLE 200.—*Agricultural interests of the home that might become school-directed home projects, District No. IV.*

Schools.	Number of children reported.			Number of children having—			
	Boys.	Girls.	Total.	Gardens.	Poultry.	Pigeons.	Rabbits.
Orant.....	201	189	370	111	12	9	14
Pacific Heights.....	247	214	461	132	14	10	10
Spring Valley.....	251	213	464	104	4	1	12
Emerson.....	148	148	296	76	10	0	7
Reading.....	104	157	261	85	15	5	4
Hamilton Intermediate.....	204	228	432	144	7	5	10
Adams.....	248	232	480	64	10	9	10
Henry Durant.....	150	128	278	53	4	8	6
Golden Gate.....	97	101	198	34	3	1	7
Fremont.....	208	206	414	110	20	9	9
John Sweet.....	304	271	575	88	2	2	12
Andrew Jackson.....	14	7	21	6	0	0	1
Demmon.....	0	350	350	69	5	5	6
Crocker Intermediate.....	282	282	564	172	29	10	25
Moulter.....	56	51	107	20	5	2	13
Dudley Stone.....	166	147	313	101	4	5	6
Hearst.....	248	201	449	123	11	6	12
McKinley.....	327	309	636	240	44	21	26
Oratton.....	275	282	557	184	25	14	26
Everitt.....	329	334	663	180	28	15	27
Douglas.....	104	123	227	70	11	7	9
Total.....	4,113	4,203	8,316	2,166	263	139	252

EAST SECTION, DISTRICT NO. V.

Schools: Rincon, Lincoln, Franklin, Ethan Allen, Marshall, Mission, Patrick Henry, Buena Vista, Daniel Webster, Agnesis, Irving M. Scott, Hawthorne, Bryant, Horace Mann, Columbia Cosmopolitan, Starr King, Haight, Bernal, Junipero Serra.

The section east and south of Market Street and east of Dolores Street as far south as Islais Creek channel has been considered as one district. Between the Rincon and Lincoln Schools and Bernal and Junipero Serra Schools, the methods of children's gardening might well vary from the use of large and small vacant lots in the former to the possibility of obtaining large open areas in the latter. The most difficult place to obtain land for gardening is in the central part of the district near the Mission School. The soil is sandy, but heavier on the hills and ridges.

Living conditions (Table 201).—From the 19 schools of the district, reports were received from 6,544 children, of whom 2,500 live

in flats, tenements, and apartments. The lots are 25 by 100 or 25 by 137½ feet, which permit of small back-yard gardens, but prevent large economic returns.

TABLE 201.—Living conditions, District No. V.

Schools	Number of children reported.	Number living in flats, tenements, and apartments.	Size of building lots in the district.	Number of children who could have garden plats 20 by 20 feet.	Are there small vacant lots for all children not having back-yard space?		Are there large plats for school gardens?	
					No.	Yes.	No.	Yes.
Rincon.....	10	3	25 by 100	8	0	1	0	1
Lincoln.....	292	131	25 by 80	23	7	0	7	0
Franklin.....	412	210	25 by 100	54	3	5	3	6
Ethan Allen.....	57	17	25 by 100	18	0	3	0	3
Marshall.....	322	200	25 by 100	63	3	4	6	1
Mission.....	543	276	30 by 100	80	9	1	8	3
Patrick Henry.....	199	78	25 by 100	56	3	1	3	1
Buena Vista.....	95	39	25 by 137½	20	0	3	0	3
Daniel Webster.....	299	76	25 by 100	75	2	3	2	3
Agassiz.....	455	220	25 by 100	78	7	3	7	3
Irving M. Scott.....	344	91	25 by 100	107	5	3	3	3
Hawthorne.....	220	125	25 by 120	40	6	0	6	0
Bryant.....	319	156	25 by 80	87	5	2	6	1
Horace Mann.....	873	384	25 by 120	301	5	6	5	9
Columbia Cosmopolitan.....	733	226	25 by 120	173	7	5	8	4
Starr King.....	161	37	25 by 100	54	0	4	0	4
Haight.....	316	129	25 by 112	93	5	1	5	1
Bernal.....	576	49	28 by 110	171	1	10	0	11
Juñpero Serra.....	421	63	25 by 114	94	4	1	3	1
Total.....	6,544	2,500		1,590	72	50	72	50

Vacant-lot studies were made from the insurance map of the city at four of the schools of the district. In 12 blocks near the Lincoln School there were found to be 19½ acres of vacant lots. Personal inspection of these lots showed that many were rented as storage places for contractors' building materials, wagons, etc. Other lots were still encumbered by basement walls left by the fire. There are, however, enough vacant lots usable and available to give large garden plats to all children of the school. Vacant lots in eight blocks near the Mission School totaled 5.6 acres, but less than half the space was available for gardening.

Near the Irving M. Scott School many back yards are large and there is much vacant-lot space. In 12 blocks there are 9½ acres of vacant lots, much of which might be used for gardening. Home gardening is being conducted at this school as a volunteer effort of the principal and teachers. By the aid of the principal, individual reports on back-yard-garden space were received from 75 children. Thirteen of these children had no garden space, while the average area for the other children was 381 square feet per child.

Within walking distance of the Bernal School there are large open spaces of excellent garden land. As this land is now under culti-

vation, a rental would have to be paid for its use as a children's garden. In many homes near the school, back-yard gardens 20 by 20 feet might be made, as the teachers report that 171 children have that much or more area. Small vacant lots could also be used as there are 35 in the 12 blocks near the school.

Occupations of children (Table 202).—As in all the central districts of the city, the street trades form the occupation of children. A large percentage of the boys sell papers on the principal downtown streets. Of 3,291 boys who reported, 732 work after school and 663 worked during the last vacation. The money earned was \$1.58 per week after school and \$2.54 per week during vacation. The girls reporting numbered 3,253, of whom 60 had employment, earning an average of \$1.58 per week, and 66 worked in vacation, earning an average of \$2.62 per week. The boys of the district work at home an average of six hours per week and the girls seven, and 648 boys and 724 girls receive some pay for the work they do in the home.

TABLE 202.—Occupations of children, District No. V.

Schools.	Reporting.		Children earning money outside home.						Children working at home.		
	Boys.	Girls.	Boys.			Girls.			Boys.	Girls.	
			After school.	Average earnings per week.	Vacation.	After school.	Average earnings per week.	Vacation.			
											Average number of hours home work per week.	Number paid for home work.	Average number of hours home work per week.	Number paid for home work.
Rincon.....	7	3	2	0	0	0	0	0	0	0	0
Lincoln.....	160	132	58	\$2.50	42	\$2.53	1	\$0.75	0	0	21
Franklin.....	213	189	51	1.90	48	3.76	3	.80	6	\$3.12	27
Ethan Allen.....	57	0	29	1.91	27	2.50	0	0	5	5	7
Marshall.....	171	151	32	1.10	9	1.50	2	.50	0	0	41
Mission.....	292	248	79	2.52	80	4.25	1	.50	5	5	31
Patrick Henry.....	103	96	12	1.37	10	2.50	3	2.75	1	0	6
Buena Vista.....	48	47	10	1.13	6	2.80	1	3.00	1	3.00	5
Daniel Webster.....	98	111	15	1.05	12	1.75	2	3.00	3	3.18	28
Agassiz.....	222	233	28	1.52	28	2.91	0	0	2	1.20	7
Irving M. Scott.....	172	172	50	1.74	46	2.14	2	2.90	4	4.45	45
Hawthorne.....	136	94	19	1.35	11	1.44	5	1.00	5	4.45	47
Bryant.....	148	171	22	1.06	19	2.50	0	0	1	4.50	33
Horace Mann.....	425	448	142	2.04	148	3.32	19	1.50	15	2.25	7
Columbia Cosmopolitan.....	304	429	44	1.70	45	2.66	3	1.67	5	3.28	40
St. King.....	91	70	10	1.00	10	1.75	0	0	0	0	6
King.....	170	146	28	1.29	35	1.84	9	.84	8	1.38	38
Bernal.....	298	278	71	2.17	60	3.70	6	2.05	11	2.95	51
Junipero Serra.....	186	235	30	1.12	27	1.82	3	.75	4	1.10	67
Total.....	3,291	3,253	732	1.58	603	2.54	60	1.58	66	2.62	6,048

Economic value of gardening (Table 203).—The total enrollment of the schools of this district is 10,635, of which number 140 leave school to become employed and 83 lose a part of the school year by going to fruit-picking camps. The majority of the pupils leaving

school to work do so because of family need, but loss of interest and retardation are also given as contributing causes.

TABLE 203.—Economic chart, District No. V.

Schools.	Children in school.	Average daily attendance.	Annual vegetable food cost for family of 5.	Following the fruit.			Children leaving school to work.	
				Number.	Date of leaving school.	Date of return to school.	Number.	Cause.
Rincon.....	99	73	\$75.00	0			0	
Lincoln.....	461	378	64.45	0			10	Need.
Franklin.....	773	620	60.00	11	May	September	4	Do.
Ethan Allen.....	111	73	60.00	0			(1)	
Marshall.....	700	625	69.57	0			0	
Mission.....	644	556	84.33	0			11	Do.
Patrick Henry.....	482	409	38.00	19	July	Oct. 15	4	Do.
Buena Vista.....	220	195	69.67	0			0	
Daniel Webster.....	396	362	55.00	0			2	Do.
Agassiz.....	865	733	68.89	0			0	
Irving M. Scott.....	460	415	55.29	3	May 20	Aug. 1	60	Not interested in school; need.
Hawthorne.....	409	338	71.25	0			0	Need.
Bryant.....	683	624	133.00	19	June 1	Sept. 15	0	
Horace Mann.....	936	893	71.20	0			0	
Columbia Cosmopolitan.....	890	816	59.55	0			20	Do.
Starr King.....	330	312	63.00	0			5	
Haight.....	543	483	67.12	17	Close of school	Oct. 1	2	Do.
Bernal.....	822	716	60.00	6	do	Second week, September	16	Lost interest; need; retardation.
Juñipero Serra.....	811	750	100.00	8	do	Last of September	0	
Total.....	10,635	9,361	68.65	83			140	

¹ A few.

The average cost of vegetable foods for a family of five for one year was estimated by the teacher at \$68.65. House rents in the district seemed to be relatively high and the use of the available vacant land in the production of vegetables might well supply needy families and keep children in school longer.

Agricultural interests of the home that might become school-directed projects (Table 204).—Of the 6,544 children reporting from this district, 2,065 state that some kind of a garden is cared for at their homes. In many cases these gardens are only small flower plats, and in some cases window boxes were counted as gardens. From answers to questions asked parents and teachers, it appears that a relatively small number of the children have garden plats of their own or have definite work in the home garden. The children also report the following animals kept in the homes, either as pets or for their economic value: Poultry at 729 homes, pigeons at 347 homes, and rabbits at 447 homes.

TABLE 204.—Agricultural interests of the home that might become school-directed projects—District No. V.

Schools.	Number of children reported.			Number of children having—			
	Boys.	Girls.	Total.	Gardens.	Poultry.	Pigeons.	Rabbits.
Rincon.....	7	3	10	4	0	0	1
Lincoln.....	160	132	292	69	4	4	10
Franklin.....	213	189	402	104	20	15	20
Ethan Allen.....	67	0	67	17	9	5	6
Marshall.....	171	151	322	81	17	11	16
Mission.....	292	248	540	128	39	24	24
Patrick Henry.....	103	96	199	73	40	27	30
Buena Vista.....	48	47	95	25	9	4	9
Daniel Webster.....	98	111	209	79	32	6	22
Agusta.....	222	233	455	107	18	13	13
Irving M. Scott.....	172	172	344	125	49	26	30
Hawthorne.....	126	94	220	34	21	4	8
Bryant.....	148	171	319	141	42	17	14
Horace Mann.....	425	448	873	281	79	42	39
Columbia Cosmopolitan.....	304	429	733	245	108	42	66
Starr King.....	91	70	161	51	30	15	11
Haight.....	170	146	316	121	26	18	17
Bernal.....	298	278	576	222	98	41	68
Junipero Serra.....	186	235	421	168	88	35	42
Total.....	3,291	3,233	6,524	2,065	729	347	447

NOE VALLEY SECTION, DISTRICT NO. VI.

Schools: Noe Valley, James Lick, Kate Kennedy, Fairmont, Edison.

The five schools of Noe Valley are shut in by ridges in such a way that the district forms a little city by itself. The floor of the valley and ridge to the east and north are well covered with homes, but to the west and south there is much open hillside space. The soil of the district is heavier than that of other districts thus far considered and might easily be improved to make a very productive garden soil.

Living conditions (Table 205).—The children reported numbered 2,601, of whom 646 lived in apartments, flats, or tenements. The building lots are 25 by 100 or 25 by 120 feet, but as most of the homes are relatively small and built near the streets each home has a small back-yard garden space. In the case of families living in flats, it would be possible to find vacant lots for children's gardens; and, as most of the flat buildings are small, some have garden space on the lots. From the teachers' reports it seems that only 888 children have space for gardens 20 by 20 feet; but in all cases hillside gardens may be resorted to to supply space for all children. Some of the hillsides are too steep for gardening and undoubtedly very dry in summer, but other sections could be easily found which are desirable and usable for a part of the year at least.

TABLE 205.—Living conditions, District No. VI.

Schools.	Number of children reported.	Number living in flats, tenements, and apartments.	Size of building lots in the district.	Number of children who could have garden plots 20 by 25 feet.	Are there small vacant lots for all children not having back-yard space?		Are there large plots for school gardens?	
					No.	Yes.	No.	Yes.
					Edison.....	385	150	25 by 100	120	6	1	7	1
Noe Valley.....	341	78	25 by 120	66	3	3	3	3
James Lick.....	641	114	25 by 120	240	10	2	10	3
Kate Kennedy.....	332	55	25 by 110	135	3	5	3	5
Fairmont.....	902	249	25 by 110	327	6	11	5	13
Total.....	2,601	646		888	28	22	28	34

Occupations of children (Table 206).—Because of the distance from the business section of the city the possibility of the children obtaining employment is not large. In the reports on occupations outside the home, the delivery of newspapers and work in local stores were the most frequent. Out of 1,304 boys, 227 reported that they had regular occupation after school, earning an average of \$1.46 per week, and 239 worked during the last vacation, earning an average of \$2.36 per week. Only 15 girls work often and 17 during vacation, earning an average of 91 cents per week after school and \$2.56 in vacation. The boys work at home an average of 5.5 hours per week and the girls 6.2. Some pay for home work was received by 255 boys and 248 girls.

TABLE 206.—Occupations of children, District No. VI.

Schools.	Reporting.		Children earning money outside home.						Children working at home.				
	Boys.	Girls.	Boys.			Girls.			Boys.		Girls.		
			After school.	Average earnings per week.	Vacation.	After school.	Average earnings per week.	Vacation.	Average number of hours of home work per week.	Number paid for home work.	Average number of hours of home work per week.	Number paid for home work.	
Edison.....	211	174	23	\$1.07	28	\$2.24	2	\$0.50	0	4	63	4	49
Noe Valley.....	152	189	7	1.50	8	1.25	2	.75	2	7	21	8	52
James Lick.....	287	354	67	1.86	62	3.83	3	1.75	0	6	57	7	54
Kate Kennedy.....	168	104	27	1.08	21	1.47	1	.80	0	5	21	6	25
Fairmont.....	486	416	103	1.79	120	3.03	7	.74	15	4.36	93	6	74
Total.....	1,304	1,207	227	1.46	239	2.36	15	.91	17	2.56	255	6.2	248

Economic value of gardening (Table 207).—The value of vegetable foods consumed by a family of five persons in one year, as estimated by the teachers of this district, is \$75.22. By intensive gardening much of this vegetable food might be grown in the section.

Five children are absent from school a part of the year "following the fruit." and about 20 leave school each year to go to work.

TABLE 207.—Economic chart, District No. VI.

Schools.	Children in school.	Average daily attendance.	Annual vegetable food cost for family of five.	Following the fruit.			Children leaving school to work.	
				Number.	Date of leaving school.	Date of return to school.	Number.	Cause.
Edison.....	708	674	\$87.50	0	.....	.....	6	Need.
Noe Valley.....	814	712	75.00	0	.....	.....	0	
James Lick.....	743	687	68.88	5	Close of school.	Aug. 23.....	10	
Kate Kennedy.....	692	638	65.00	0	.....	.....	0	Do.
Fairmont.....	1,121	1,034	79.74	0	.....	.....	4	
Total.....	4,078	3,705	75.22	5	.....	.....	20	

Agricultural interests of the home that might become school-directed projects (Table 208).—That there is a good possibility for home gardening in this district is shown by the fact that 1,000 of the 2,601 children reporting state that a garden is cultivated at their homes. Poultry is kept at 382 homes, pigeons at 181, and rabbits at 222.

TABLE 208.—Agricultural interests of the home that might become school-directed projects—District No. VI.

Schools.	Number of children reported.			Number of children having—			
	Boys.	Girls.	Total.	Gardens.	Poultry.	Pigeons.	Rabbits.
Edison.....	211	174	385	130	44	18	25
Noe Valley.....	152	189	341	182	50	19	21
James Lick.....	287	354	641	237	89	50	60
Kate Kennedy.....	168	164	332	131	48	30	33
Fairmont.....	496	410	902	320	133	64	81
Total.....	1,304	1,297	2,601	1,000	382	181	222

SOUTH SECTION, DISTRICT NO. VII.

Schools: Farragut, Sunnyside, Longfellow, Glenn Park, Munroe, Cleveland, Visitation Valley, Portola, Harrison, Bay View, and Burnett.

The south district contains all land area from the boundary of Districts Nos. 5 and 6 to the county line. In this territory there are many large open spaces. In the lowlands the soil is an excellent black loam and much of this land is being used for gardens, chiefly by Italian vegetable gardeners. As a whole, this district offers the

greatest possibility for profitable children's gardening, although it will be more difficult to market the surplus above the needs of the home than in any other part of the city.

Living conditions (Table 202).—As would be expected from the general aspect of the district, a smaller percentage of children live in apartments, tenements, and flats, only 233 of the 4,364 living under such conditions. In anticipation of the building up of the section, however, all lot plans have been laid out in 25-foot lots. About half of the children can have back-yard gardens 20 by 20 feet or larger. In a study of the possibilities for home gardening at the homes of 36 children of the Bay View School, it was found that 2 had no space for gardening, 4 had less than 100 square feet, while all others had 250 or more square feet. The average number of square feet per child is 1,109. The majority of the teachers state that it would be possible to find all the land needed for profitable gardens for all children.

TABLE 202.—*Living conditions, District No. VII.*

School	Children reported	Number living in flats, tenements, and apartments.	Size of building lots in the district.	Number of children who could have garden plats 20 by 20 feet.	Are there small vacation lots for all children not having back-yard space?		Are there large plats for school gardens?	
					No.	Yes.	No.	Yes.
Sheridan.....	397	7	25 by 125.	184	2	6	2	3
Farragut.....	283	12	25 by 174.	164	0	5	0	5
Sunnyside.....	128	1	25 by 100.	44	0	4	0	4
Logfellow.....	241	6	25 by 125.	147	0	6	0	6
Glenn Park.....	528	34	25 by 120.	278	0	12	0	12
Monroe.....	732	47	25 by 125.	348	3	9	5	6
Cleveland.....	307	4	25 by 100.	144	1	6	1	6
Visitation Valley.....	213	7	25 by 100.	114	0	6	0	6
Portola.....	613	54	25 by 100.	240	6	7	6	7
Harrison.....	87	0	25 by 100.	62	2	0	0	2
Bay View.....	575	44	25 by 100.	301	2	10	3	9
Burnett.....	272	17	25 by 100.	87	0	4	0	4
Total.....	4,364	233		2,133	16	75	17	70

Occupations of the children (Table 210).—Of 2,164 boys reporting 323 have employment after school from which money is earned, and 333 work during vacation. The average earnings of these boys is \$1.80 and \$2.40, respectively. Only 43 girls have money-earning employment after school and 47 during vacation. Considering the greater opportunity for employment in the homes of this more open district, it is rather surprising that both boys and girls are employed with home duties only an average of 7 hours per week.

TABLE 210.—Occupations of children, District No. VII.

School.	Reporting.		Children earning money outside home.						Children working at home.				
			Boys.			Girls.			Boys.		Girls.		
	Boys.	Girls.	After school.	Average earnings per week.	Vacation.	After school.	Average earnings per week.	Vacation.	Average earnings per week.	Average number of hours home work per week.	Number paid for home work.	Average number of hours home work per week.	Number paid for home work.
Sheridan.....	193	194	33	\$1.73	44	\$2.55	5	\$1.00	11	\$2.20	0	39	40
Farragut.....	138	145	31	1.75	48	3.33	0	1.00	13	1.33	0	25	23
Sunnyside.....	66	62	9	1.65	4	2.25	0	0	0	0	0	0	7
Longfellow.....	127	114	32	1.78	16	2.85	4	1.50	4	2.00	0	42	16
Glenn Park.....	273	253	42	1.64	43	2.62	4	1.50	3	1.50	0	89	68
Monroe.....	362	370	31	1.68	47	2.23	5	1.25	4	1.50	6	74	58
Cleveland.....	171	139	14	1.60	8	2.31	4	1.13	2	1.55	5	46	74
Visitation Valley.....	92	121	19	2.00	19	2.00	1	.50	4	1.00	6	24	19
Portola.....	290	323	32	2.06	32	2.17	2	.85	2	1.50	6	61	68
Harrison.....	53	31	1	3.00	0	0	0	0	0	0	124	0	5
Bay View.....	273	392	66	1.71	61	2.59	9	1.31	3	1.00	7	59	55
Burnett.....	126	116	6	1.00	9	1.58	2	.65	1	1.00	74	49	50
Total.....	2,164	2,200	323	1.80	333	2.40	43	.97	47	1.36	7	497	443

Economic value of gardening (Table 211).—The teachers of this district estimate that it costs a family of five persons an average of \$57.29 for vegetables for one year. Thirty-nine children are absent from school a part of the year because they are away from the city "following the fruit." Seventy-eight children left school last year to go to work. In all cases family need is given as the cause of leaving school.

TABLE 211.—Economic chart, District No. VII.

Schools.	Children in school.	Average daily attendance.	Annual cost of vegetable foods for a family of five.	Following the fruit.			Children leaving school to work.	
				Number.	Date of leaving school.	Date of return to school.	Number.	Cause.
Sheridan.....	584	530	\$34.28	10	Close of school.	Oct. 1.....	15	Need.
Farragut.....	449	401	40.00	0			10	Do.
Sunnyside.....	226	210	51.00	0			1	Do.
Longfellow.....	371	312	69.83	0			6	Do.
Glenn Park.....	729	656	69.00	0			24	Need; non-promotion.
Monroe.....	1,156	1,065	52.29	0				
Cleveland.....	661	500	37.67	10	Close of school.	Sept. 1.....	2	Need.
Visitation Valley.....	367	332	47.66	0	During summer vacation.		10	Do.
Portola.....	859	802	60.00	10	Close of school.	Sept. 10.....	10	To earn money.
Harrison.....	195	185		5	May 20.....	Aug. 20.....	0	
Bay View.....	720	672	78.50	4	Close of school.	Sept. 15.....	Very low.	
Burnett.....	600	450	64.00	0				
Total.....	6,717	6,145	57.29	39			78	

*Agricultural interests of the home that might become school-directed projects (Table 212).—*The reports of 4,364 children show that 1,618 of the homes have some kind of a garden. Poultry is kept at 1,157 homes, rabbits at 366, and pigeons at 807. If the parents of this district could be induced to turn over garden tracts or the care of animals to the children, it would be possible to work out home projects for many children.

TABLE 212.—*Agricultural interests of the home that might become school-directed projects, District No. VII.*

Schools.	Children reported.			Number of children having—			
	Boys.	Girls.	Total.	Gardens.	Poultry.	Pigeons.	Rabbits.
Sheridan.....	193	194	387	124	83	24	50
Farragut.....	138	145	283	90	74	15	88
Sunnyside.....	66	62	128	58	42	11	21
Longfellow.....	127	114	241	124	73	34	58
Glenn Park.....	273	253	526	152	122	41	71
Monroe.....	362	370	732	357	227	50	136
Cleveland.....	171	130	307	107	83	23	38
Visitation Valley.....	92	121	213	102	70	15	54
Portola.....	290	323	613	149	108	48	100
Harrison.....	53	34	87	5	27	3	20
Bay View.....	273	302	575	219	135	54	86
Burnett.....	126	146	272	125	107	42	50
Total.....	2,164	2,200	4,364	1,618	1,157	366	807

THE JUVENILE COURT.

As without doubt the inability of city children to find employment for their time in the right kind of occupations and the employment of many in undesirable occupations are contributing influences to juvenile delinquency, the following facts are here reproduced from the report of the Juvenile Court of San Francisco for the year 1915:

SAN FRANCISCO JUVENILE COURT, REPORT OF PROBATION OFFICER FOR THE YEAR 1915.

During the year 1915, 833 children were brought to the attention of this court either because of the inability of their parents to properly care for them, this through poverty, intemperance, immorality, or other cause, or by reason of the death of one or both parents and the lack of proper guardian and means of support.

The following table shows the number of children brought before the court for such causes:

TABLE 213a.—*Number of children brought before court for certain causes.*

	Children.
Cruelty of parents.....	41
Neglect of parents.....	195
Destitution of parents.....	171
Drink on part of parents.....	150

	Children.
Depravity of parents.....	80
Desertion of parents.....	140
Death of parents.....	53
Total	833

During the year 668 boys and 273 girls came before the court because of certain delinquent acts committed by them through the violation of city ordinances or the penal code, or because of immorality and other causes.

The number of children brought before the court for such causes is shown by the following table:

TABLE 213b.—Boys and girls brought before court for certain causes.

	Boys.	Girls
Assault.....	40	---
Burglary.....	81	1
Larceny.....	159	5
Gang activity.....	22	---
Incorrigibility.....	60	83
Vagrancy.....	33	---
Mischief.....	57	---
Violation of city ordinance.....	91	---
Sex immorality.....	20	140
Other causes.....	96	44
Totals.....	668	273

A third group is made up of those who, previously before the court, again appeared because of the need of admonishing either the parents or the children themselves for their lack of progress.

This group comprises 121 boys and 29 girls; total, 150.

STREET TRADES.

Valuable facts in regard to the juvenile street trades of San Francisco have been collected by the Juvenile Protective Association. Because it has been found in the foregoing district studies that so many schoolboys are engaged in selling newspapers, the following abstracts of findings and recommendations of this association have a direct bearing on the educative and noneducative influences of street trades on schoolboys:

A table compiled for us from San Francisco Juvenile Court records by a student at the University of California shows that 59.5 per cent of the boys brought to court because of street trades were newsboys; 52.84 per cent of the boys brought to court who had street trades in their previous history were newsboys; and 53.19 per cent of the boys who went into street trades after they were delinquent were newsboys.

Recommendations.—We have pointed out the evil environment of the street and its degrading influence on young boys. We hope that it will lead to a

more extensive investigation and to serious consideration of the obvious necessity of raising the age limit to 14 years.

We recommend a city ordinance which shall establish the office of supervisor of street trades, having as his sole and only duty the regulation of street trades. He should cooperate with the truant officer to secure regular attendance and good standing of the boys at school.

We recommend an effective licensing system in order to secure a legitimate class of newsboys. Each boy must have a permit and wear a badge. Before issuing the permit, the supervisor of street trades should obtain full information regarding the boy.

FOLLOWING THE FRUIT.

The phrase "following the fruit" has a significance in California which it could not have in any other part of the United States. Because of the variations in climate and horticultural products, it is always "picking time" in some part of the State. As the harvest season in any locality is comparatively short, the pickers, usually whole families, move north or south following the ripening fruit. In several localities the press of work in fruit picking and packing time is so great that both country and city school vacations are arranged so that the children may help. At San Jose the vacation period covers the prune-picking time.

The school authorities in San Francisco have been annoyed by having children from certain schools leave in large numbers about March 1 to go to fruit-picking camps. Very often these children do not return to school until the middle of October or the first of November, and thus they become very much retarded. Several years ago an investigation was made by the superintendent's office as to the number of children who left school to "follow the fruit," with a view to changing the time of the vacation, but when compared to the total enrollment the number was so insignificant that no change was made.

From the answer of principals to the question, "How many children leave before the close of the school year to go to fruit-picking camps?" it was found that last year approximately 246 left school early or returned late because of "following the fruit." In most cases the children are accompanied by one or both parents. The families move to camps provided by the fruit ranches and when the picking season is at its height a little village is formed. As the fruit gathering season is short in most sections, this camp site is soon abandoned and the families move to a new field after a few weeks.

The moral and sanitary conditions of the fruit camps are often bad. The children who engage in fruit picking usually come from homes where there is little real home training and run wild under the new freedom. As one girl said, "I like it better in the fruit camp because there ain't no cop to watch us all the time." The frequent change from camp to camp also has a tendency to form

roving habits. In a State report on fruit-camp conditions, it was shown that a large percentage were insanitary.

The influence of "following the fruit" on the life of the child during the part of the year spent in school in the city is often marked. Most of these children are very much retarded and lose interest in school, and then, having no definite interest, become vicious. In most cities the number of juvenile court offenses increases in vacation, but in San Francisco there are about the same or even a smaller number, the cause for which is attributed by the assistant probation officer to the large number of "worst children" being at fruit camps.

The Juvenile Protective Association of San Francisco has been engaged in studying the evils of life in fruit-picking camps. The following figures on retardation of children from the Washington Irving School who pick fruit, furnished by Mrs. Bert Schlessinger, former president of the association, show conclusively one of the evil effects.

REPORT FROM THE WASHINGTON IRVING SCHOOL.

In the Washington Irving School the compulsory educational law is being violated. Pupils are retarded from 3 to 5 years. One week ago (Feb. 20, 1916) the following left to cut asparagus, to return some time in October; of foreign birth—school very necessary:

TABLE 214.—Pupils leaving school.

Age	Grade	Retarda- tion.	Age	Grade	Retarda- tion.
13	4	3	8	1	1
11	3	3	12	3	4
12	3	4	11	1	3
11	3	4	7	1	1
12	3	4	12	3	4
12	4	3	11	3	3
10	1	4	15	3	6
13	3	5	12	4	3
11	3	3	8	1	2
8	1	2	6	1	2
11	1	1	8	1	2
7	1	1	14	3	5
12	3	4	8	1	2
9	2	1	8	1	2
11	3	3	13	3	5
13	3	5	7	1	1
14	5	2	10	2	3
15	5	4	12	2	5
8	1	2	9	2	2
12	2	4	7	1	1
14	3	2	12	4	1
14	5	2	10	1	1
12	3	4			

All of the above evils of "following the fruit" and more are undoubtedly real. The children who go to the camps are nearly all from schools in the congested sections of the city, and in the home environments undoubtedly encounter all the vices. A child must have some interest and employment or all his time will be spent in

occupations that are not suited to his development. At home in the city, about the only employment open to the child is in the street trades, and the Juvenile Protective Association has condemned these even more strongly than it has "following the fruit." Under the present insanitary and immoral conditions of the camp, the child has an out-of-door life and regular employment and surroundings which are little, if any, worse than those of the city slums.

Under the right direction and conditions, fruit picking might be made healthful, educative, and lucrative to the children. Fortunately, the experiment has been tried by the Boys' and Girls' Aid Society and has met with marked success. The work of the wards of this society has been well described by the superintendent for the society, in his 41st annual report.

CAMP PERKINS.

We moved to Camp Perkins on the 5th of June with 125 boys, traveling in special cars on the Northwestern Pacific Railway to Sebastopol and the Petaluma & Santa Rosa Electric Railway from Sebastopol to Barlow, where we found the work of the advance party, under Mr. Welch's direction, well performed and a very complete and perfect camp awaiting us.

Unusual precautions had been taken to make the camp sanitary and healthful. The kitchen and all toilets were carefully screened against flies; a new hospital, consisting largely of screening, erected; and covered garbage cans installed.

During the summer, when the work permitted, all of the tent forms under the boys' sleeping tents were raised from the ground from 18 inches to 3 feet, affording ventilation beneath and making them more healthful.

Here we spend a little over three months picking berries—loganberries, manumoth blackberries, and Lawton blackberries—over 77,000 trays of them, nearly 200 tons—and last year was an off year, with a light crop. The summer's earnings amounted to \$3,505. This large sum was distributed among about 180 boys, according to their individual ability at picking. For each day every boy is credited with the exact number of trays picked and is paid what he earns, less 12½ cents per day charged for camp expenses. This does not pay the expense of maintaining the camp, only part of the expense, but it does serve to teach the boys that part of each day's earning must be used toward their own support.

On our return from camp the accounts are closed and each boy may spend his earnings as he desires, part being kept in reserve for future use. All of the boys invest in suits of clothing for Sundays and special occasions, shoes, hats, linen, and neckwear; many have dentistry done; and a large number subscribe for magazines, which are a continued source of pleasure and profit.

Every boy retains part of his earnings, leaving it to his credit, to be drawn on for carfare and spending money on Sundays. This double process of earning money at piecework of a nature especially adapted to boys, as the berry-picking is, and of expending the money earned, is of great moral and educational value, teaching the value of money and demonstrating to a boy how much easier and more desirable it is to earn one's money by honest labor than to acquire it by crooked means.

The economic side of camp life would more than justify its continuance, for, in addition to the benefit to the boys, the help afforded the berry grower is invaluable. We are unable to furnish pickers for all the growers who apply, though this summer we had an enlarged camp and the largest enrollment in the history of the work, 108 boys being the high-water mark. This taxed the capacity of our kitchen to the utmost, but Mrs. Skinner was equal to the task and kept the boys well fed. To do this required large supplies of provisions daily and our bills were heavy. About 8,000 loaves of bread were consumed each month at the rate of 250 per d. y., and 20 gallons of rich, pure milk were used, for country air and outdoor work sharpen the appetite of all.

Recreation.—However, work is not the only activity at camp, for a part of every day is reserved for recreation, and during June every evening was spent in training for the Fourth of July. The gymnasium suits were donned by those who expected to compete in the athletic events on the Fourth, and the evening was spent in running and jumping.

But the Fourth was not the only special day, for on August 8 the boys were the guests of the directors of the Gravenstein Apple Show in Sebastopol, which was thrown open to them. After the show had been carefully inspected, many of the concessions were opened to them and greatly enjoyed by all.

Saturdays were reserved for recreation, and many a good baseball game was played on our diamond between the several nines, with an occasional game with an outside nine.

But the swimming hole was by all odds the most popular place at camp, and to it the squads or working parties wended their way at the conclusion of the day's picking as often as possible, and always on Sundays for the weekly bath.

Many boys learn to swim during each summer, for the pool is admirably adapted for the purpose, sloping gently down to where the water is 7 feet deep, and good diving.

The recreation side of the camp life is valuable and makes better boys of all.

Another valuable feature is the opportunity for a measure of self-government which is granted the boys. Each squad of boys elects its own captain, and lieutenant, who have charge, under the overseer, and help in moving the squad to and from work and in the berry patch, and each company has its own captain, who has charge of the tent and assists the night watchman to maintain good order.

A mayor, clerk, and sheriff complete the boys' organization, in addition to the semimilitary organization which prevails. From reveille in the morning to taps at night all is done by bugle call, and the beautiful flags floating from the tents and large flagstaff add to the military effect.

Sunday is a day of rest and after the bathing is attended to is devoted to music, reading, letter writing, and a religious service in the early evening. Many come from the neighborhood to enjoy the boys' spirited singing and to listen to addresses by the Rev. William Rogers, who for 10 years has given up his Sunday evenings to conducting this service and has won the love and good will of all the boys by his kindly but forceful pleas for clean, upright, and godly lives.

Early in September the berries were harvested and on the 10th we returned to San Francisco, a sunburned, healthy, and happy bunch of boys, after our twelfth annual camp on Mrs. Barlow's ranch. A pleasant trip to San Francisco and the home and the Monday following found all of the boys at their desks in the schoolroom, ready to study and improve their minds, filled with renewed zest and earnestness after their three months' outing.

From every standpoint the berry picking camp of the Boys' and Girls' Aid Society seems to have been a success. Very often in our educational work we have discovered the most valuable projects for our abnormal and delinquent children. At the other extreme the many boys' and girls' camps of the northern part of the United States are filled with children each summer. Wealthy men feel that the training their children receive from 10 weeks of directed camp life is worth from \$150 to \$250. In San Francisco there are over 11,000 boys and 14,000 girls who have no definite employment during the summer. Child labor laws have taken away from city children many employments which were harmful to them, but something must be found to take the place of these activities. Modern city education must supply occupations which are educative and productive.

If "following the fruit" can be made educative and productive for delinquent children, might not it be much more so when normal boys and girls engage in it under the right direction?

From January 1, 1915, to January 1, 1916, the county of San Francisco spent \$177,907.54 for the care of juvenile court children by agencies and institutions. The boys of the Boys' and Girls' Aid Society earned \$3,895 in one summer and returned to the city stronger mentally, morally, and physically. In Districts Nos. 1, 4, and 5, where gardening and other educative and productive occupations are almost prohibitive because of the lack of land, the experiment of vacation fruit picking merits trial. This work should be under the direction of a teacher who can lead the children not only in the routine of fruit picking, but also in a love of country life and the vocational study of growing of the fruit. A large part of the cost of this work might be paid for out of the earnings of the children. This is an educational problem of San Francisco that needs much further study to determine the time of year that the picking must be done, the extent of the field, the number of children who need such training most, and the cost of such a project to the school department.

POSSIBLE PLAN FOR SCHOOL-DIRECTED "FOLLOWING THE FRUIT."

The following suggestive outline of the cost of taking 20 boys to fruit-picking camps has been prepared in order to show the possibilities in a concrete way. Twenty children have been selected as the unit for one person to instruct, as that number is often cared for by a single boys' camp leader. The money received by each child for the summer's work is small, but returns in health and education would be large as compared to spending a summer in the "North Beach Section." An increase in the amount of berries

picked would increase the profit and it is possible that the cost of the camp, as given below, might be decreased.

Cost and earnings sheet for 20 boys following fruit.

	Cost.
Teacher 3 months (90 days), at \$100 per month.....	\$300
Food cost of 20 boys, 1 teacher, 1 cook, at 20 cents per day.....	306
Car fare to camp ¹ and return, 22 people.....	44
Salary of cook.....	90
Total	830
Earnings of 20 boys, at 75 cents a day, for 70 days.....	1,050

IRRIGATION OF GARDENS.

During a part of the year it is impossible to produce many vegetable crops successfully in San Francisco without irrigation. According to Bill No. 3665, Ordinance No. 3346, Section 5 (new series), etc., irrigation for private gardens and private grounds costs \$0.00575 per square yard; no monthly charge to be less than 17 cents.

Information obtained at the city water department indicates that when the flat rate charge is made up for a dwelling, the above prevailing rate per square yard is charged whether the lot is bare sand, lawn, or garden. A home owner who does not cultivate his lot is therefore paying for water from which he derives no benefit.

A plan for the use of water to irrigate vacant lots used for gardening, now being contemplated by another west coast city, might well be copied by San Francisco. By this plan to foster the use of vacant lots for the growing of vegetables and flowers, anyone securing permission from the owner to use a vacant lot for gardening may apply to the city water department to have a water line laid to the property. The cost of installing the line is made against the owner of the property and carried by the city without interest until a building is to be erected, at which time the regular charge is collected. By this plan the water department is enabled to keep a uniform working force, water lines to property on which buildings are being built having priority, and any extra time is given to vacant lots in the order that requests are received.

Horticulture products and farm area of San Francisco County and 10 near-by counties (Tables 215 and 216).—A study of the census figures on the horticultural products and size of farms in the counties near San Francisco was made in order to determine the possibilities of vocational direction by prevocational training in gardening. In the counties nearest the city the number of small farms is

¹ Camp equipment to be furnished by grower or to become permanent equipment of school department.

largest. To state that a county produces large quantities of vegetables or small fruits is almost equivalent to stating that there are many small farms. There are a few large farms growing small fruits, but in most cases the demands of cultivation and the high money value per unit area require that each grower confine his efforts to a small acreage.

TABLE 215.—*Horticultural products of San Francisco and near-by counties.*

Counties.	Vegetables.	Potatoes.	Orchard fruits.	Tropical fruits.	Grapevines.	Small fruits.	Nuts.
	Acres.	Acres.	Trees.	Trees.	Number.	Acres.	Trees.
San Francisco.....	466	87	1,105	1	3,000		
Alameda.....	7,459	1,655	627,824	15,000	2,390,959	401	26,339
Contra Costa.....	3,650	12,687	225,939	10,597	2,972,130	6	215,249
Marin.....	117	435	32,298	387	115,198	3	312
Sonoma.....	954	2,279	1,304,105	20,228	17,939,972	1,471	16,631
Napa.....	428	530	497,391	21,251	8,593,338	69	2,708
Solano.....	650	311	1,357,911	8,911	1,213,265	12	100,239
Sacramento.....	6,367	1,408	595,901	84,893	7,027,510	554	67,186
San Joaquin.....	6,728	21,313	364,290	21,070	13,371,794	92	99,489
Santa Clara.....	4,211	1,085	5,043,766	28,023	6,864,480	1,011	48,398
San Mateo.....	3,210	971	43,655	7,219	124,960	69	331

TABLE 216.—*Size of farms in San Francisco and near-by counties.*

Counties.	Per cent under 3 acres.	Per cent 3 to 9 acres.	Per cent 9 to 19 acres.	Total.
San Francisco.....	43.9	38.2	7.0	89.1
Alameda.....	6.1	24.3	16.6	47.0
Contra Costa.....	1.2	8.0	8.0	17.0
Marin.....	1.2	7.0	10.0	18.0
Sonoma.....	.9	19.0	18.0	37.9
Napa.....	.9	9.0	14.0	23.9
Solano.....	.5	3.7	5.2	9.4
Sacramento.....	.7	10.4	14.8	25.9
San Joaquin.....	.2	6.2	16.1	22.5
Santa Clara.....	1.4	16.5	25.0	42.7
San Mateo.....	6.9	12.1	8.0	27.0

In San Francisco County 43.9 per cent of the farms are under 3 acres in size and 82.1 per cent under 10 acres. In Alameda County, which produces many vegetables, 30.4 per cent of the farms are less than 10 acres in extent and over one-third of the area of Sonoma County, which produces much small fruit, is divided into farms of less than 20 acres.

In order to be successful the owners of these small farms must practice intensive methods of crop production. Through the use of the small back yard and vacant lot garden many children may be taught these intensive methods which later may be instrumental in the choice of gardening as a vocation.

SHOULD THE CITY TRAIN HER YOUTHS IN AGRICULTURE?

The location of San Francisco, directly across the bay from the University of California, with its strong agricultural college, should

make easy the giving of agricultural courses in the city school system. Many of the boys from the city now attend the college of agriculture, whose work would be strengthened by prevocational courses in gardening in the grades and vocational courses in the high school. Were such courses given, many more city boys would, without doubt, select agriculture for their life work and receive advanced training at Berkeley.

The following statistics collected by Prof. B. H. Cocheron show that more than half of the students registered in the college of agriculture in April, 1915, came from the city and had had little or no previous agricultural experience:

QUESTION I: Were you brought up on a farm or ranch.

Classes.	Brought up on farm.		Not brought up on farm.	
	Number.	Per cent.	Number.	Per cent.
Freshmen.....	50	42.0	69	58.0
Sophomores.....	46	43.8	59	56.1
Juniors.....	23	30.7	63	69.2
Seniors.....	42	46.1	49	53.8
Graduates and specials.....	21	45.6	25	54.3
Total.....	188	41.3	265	58.6

QUESTION II: Did you come to the university from a home situated on a farm or ranch.

Classes.	From farms.		Not from farms.	
	Number.	Per cent.	Number.	Per cent.
Freshmen.....	38	31.9	81	68.1
Sophomores.....	33	30.4	73	69.5
Juniors.....	27	29.6	64	70.3
Seniors.....	30	32.9	61	67.0
Graduates and specials.....	19	41.3	27	58.7
Total.....	140	32.3	306	67.6

QUESTION III: How many years or months of actual full day's work have you ever done?

	Averages.
Freshmen.....	11 months and 14 days of farm work.
Sophomores.....	1 year, 4 months, and 18 days.
Juniors.....	1 year, 6 months, and 3 days.
Seniors.....	2 years, 2 months, and 13 days.
Graduates and specials.....	2 years, 10 months, and 8 days.
Entire registration.....	1 year, 7 months, and 2 days.

As might have been expected, the length of work increases with the progression of the classes, but unexpectedly increases faster than the amount of time out of school for vacations would permit. This has been caused by students

who drop out of school for a year or more and by students with whom time magnifies the amount of work they have done.

There are 75 students in the college who state they have never done a full day's farm work in their lives. Of these 5 are graduates, 8 seniors, 12 juniors, 19 sophomores, and 25 freshmen.

TEACHER TRAINING.

When gardening is put on a strong financial basis in San Francisco, its permanent success will depend on the teaching force. The experience of city school-garden supervisors of the country seems to prove that the best results can be obtained for the least expenditure of money by training the regular grade teachers or by appointing grade teachers who have had garden-teaching experience elsewhere.

In reply to the question, "Have you a teacher trained to do the garden work?" 13 principals answer "Yes" and 67 "No." While the field work of the survey was in progress most of the teachers whom the principals consider trained to do garden teaching were interviewed. Some of these teachers had taken theoretical courses in agriculture at the University of California and had also had much practical experience. All of the teachers were enthusiastic and all had received some special training for garden teaching. The teachers were uncertain as to the best methods of applying agricultural knowledge to the teaching of city children, but all would welcome supervision and direction from a trained leader of garden work.

The garden department should grow gradually from a small beginning to a department that reaches every child of garden age in the whole city. Thirteen teachers make a good nucleus from which to start, but these teachers will wish to continue their training, and other teachers must become prepared to take up and extend the work each year. Teachers who wish to become garden specialists should attend all conferences and classes held by the supervisor of gardening. They should be assigned to practice teaching under the direction of experienced teachers who are also in service as school and home-garden teachers.

Another source of practical garden information is the Italian gardener. Because of the high price of land and demands of the local markets, these gardeners must make every square foot of land yield its utmost. By observation of the Italian methods, time of planting, and succession of crops garden teachers may obtain much practical information.

Because of the near-by location of the University of California, with its agricultural department and many agricultural courses, teachers in San Francisco have unusual opportunities for agricultural training. Courses 100A, 100B, 101, 102, and 104 are of special value to city teachers of gardening.

VALUE OF SCHOOL-DIRECTED HOME GARDENING TO SAN FRANCISCO CHILDREN.

Economic.—Reports were received from 7,915 children (Table 218) who could have home garden plats of 400 square feet or more. Without doubt many more children could be supplied with space on vacant lots. If only the 7,915 children were taught to make gardens, however, and each child grew 10 cents worth of vegetables¹ per square foot, a total value of \$316,000 would be produced on waste land by the now wasted time of the children. As one teacher is able to direct the garden work of about 150 children, 53 trained teachers would be needed to work after school, on Saturday, and during the summer vacation. An additional salary of about \$250 would probably be sufficient for the extra work of each of these teachers, or a total cost to the school department of \$13,250.

From a purely financial standpoint, an expenditure of \$13,250 for a return of \$316,000 should be good business. In case the children average a net return of only 2½ cents per square foot, the return in food to the community would have a value of \$79,150, or nearly six times the cost in teachers' salaries.

Health.—A grand total of 29,679 children were reported by upper grammar grade teachers. To improve the health of this army of children through out-of-door exercise would be of enough value to warrant all expenditure for garden teaching. To be mentally strong, the child must be physically healthy. A child, working with feet in the soil, head in the sunlight, and lungs filled with fresh air, will have redder blood coursing through his veins, eat better, sleep better, and grow into stronger manhood than one who works in mill or shop or idles his time away.

The 10,369 children who live in apartments, flats, and tenements need this health-giving exercise most. To play on street and sidewalk is dangerous to life and to walk with parents simply for exercise is boredom. The most real of all experiences comes to the child through accomplishing a worthy, yet difficult, task that has definite relation to his present life and at which he works with purpose.

Mental training.—Most of the present-day city occupations open to children very largely cease to be educative when they become productive. In the shop and factory, the same thing must be done in exactly the same way, day after day. In the street trades, there is very little chance for real occupational growth and the acquiring of the "business sense," commonly spoken of, is often really the formation of habits of taking advantage of others.

In the garden, on the other hand, conditions are hardly the same from hour to hour. Each day brings new duties and problems, and

¹ Now being produced by children in cities of eastern and Southern States.

each year old methods must be improved and new products may be added. The child is not taking advantage of another for his own gain, but coping with nature's forces and learning nature's innumerable lessons, and at the same time contributing much to the comfort and pleasure of others.

Habits of industry.—Of the total number of children who reported (29,670), 10.9 per cent worked during the out-of-school hours and 10 per cent (Table 219) were employed in the vacation. The time of both boys and girls was occupied less than one hour per day by duties in the home. Studies of the out-of-school employment of children seem to show that, as the city grows in size, the possibilities for productive occupation decreases and that the decrease is in direct ratio to the size of the city.

The boy without regular work is apt to be father of the man without a job. San Francisco has too many of the "park bench type" already. In order that the man may be a successful worker the child needs real occupation when in the habit-forming period. The productive cultivation of the back yards and vacant lots of the city would furnish regular occupation for many children who have no occupation or have been excluded from harmful pursuits by child-labor laws.

The making of a successful garden must be attended by daily work. Weeds have to be subdued, the soil has to be mulched, and crops harvested at the right stage of development. From such regular work the child forms early the habit of industry.

Moral influences.—No other one thing reveals quite so clearly to the child his place in life's plan as work with living, growing things. Through the use and sale of the garden products he learns to value dollars in terms of labor. To learn to earn one's own living honestly is a fundamental basis of morality. The evils of community, State, and nation come not from those who have learned to live by their own labor, but from those who wish only to profit from the labor of others.

NATURE STUDY.

Nature study and elementary science are required subjects in the graded schools of San Francisco. Enough serious consideration has not been given to the subject, however, to work out a complete program adapted to the city. In surveying the work of the elementary schools, Messrs. McMurry and Withers found the nature study course and teaching unsatisfactory.

The 1911 course of study included nature study for the purpose of vitalizing other subjects. By this method the subject lost its identity, ceasing to exist as an independent subject through over-

correlation. The supplementary course of 1915 tries to remedy this condition by swinging to the other extreme and outlining a definite nature study and science course from the third to eighth grades inclusive, based on Murche's Science Readers. This course in its definiteness goes so far as to designate the exact number of pages to be covered in each grade each semester. "The assignment of a set of readers can not be regarded as an adequate solution of the problem of science teaching in the grades. A bookish approach to science is wrong."¹

In the actual carrying out of this course, conditions vary in each school and with the individual teachers in the same school. Because of the time given to the subject, some teachers must enlarge upon the work given in Murche, while others are content to do only what is prescribed. The time given to nature study and science teaching varies all the way from one 20-minute period to five or more 30-minute periods per week. Table 217. There is danger of some teacher "riding a hobby" while others slight the subject. Three hundred and nine teachers reported on the number of field trips taken in the interest of studying nature as follows: Excursions were conducted by 132, while 177 did not take classes to the field at all.

TABLE 217.—Number of nature-study excursions reported by teacher.

Nature-study excursions reported by teacher:	Teachers.
Not any.....	177
Per week (one).....	5
Per month—	
One.....	15
Two.....	11
Per year—	
One.....	8
Two.....	7
Three.....	4
Four.....	
Five.....	4
Per term—	
One.....	45
Two.....	20
Three.....	0
Four.....	4
Five.....	3
Nature-study periods per week as reported by teacher:	
One per week.....	140
Two per week.....	300
Three per week.....	101
Four per week.....	27
Five per week.....	31

¹ Dr. C. A. McMurry; see p. 210.

In the cases of teachers who do conduct excursions, the number of trips varies from one per year to one per week. These variations do not seem to be uniform by grades, but without doubt depend on the interest of the teacher. During the exposition the children from all schools were taken to study the exhibits and thus had an unusual chance to gain nature-study information. The San Francisco school board overlooked an opportunity by not securing some of these displays for geography and nature-study museums.

In answer to a question on the use of illustrative materials in nature study and science lessons, the most common answer was, "In all lessons whenever material is available."

A few of the teachers' answers in regard to the use of specimens and apparatus in nature study and science follow:

"We bring the material into class each lesson."

"Every article, material, substance mentioned in *Murche's Science Reader* is used in the class room during the lesson, given according to our Course of Study. Illustrative material usually consists of drawings on board or pictures in books."

"The science is still in its early stages. The first year is entirely nature study with illustrative material in each lesson. In the other science (of common things) which deals with nature and the simplest facts of physics and chemistry, we always try to show a relation between it and plant or animal life. Illustrative material is used whenever possible. Our apparatus is limited but, little by little, the work is taking a more definite shape."

"There is no time for field trips and the classes are much too large and too young for one teacher to handle informally. Some child brings illustrative material nearly every day or some article on the subject without being asked for it."

"The seventh and eighth grades have 'Science' three times a week. Two lessons are devoted to the work mentioned above and the third to physiology or hygiene. We have illustrative material for this work whenever possible."

"In every way possible the illustrative material is used, some of the work being made at home. A small laboratory is in the school. I am allowed by the principal to make my own course in science. Gas and electricity are in my room."

"During the lessons on water and mercury (as used in separating gold from its ore) the necessary materials were on hand in the schoolroom."

"We have a very good museum with specimens collected by the children mostly. We have growing plants and vegetables in season."

"Whenever the textbook requires it and we have the apparatus."

"Have laid out a flower garden in the sand lot adjoining the school. In this way have taught the children something about practical gardening. This year will try to raise vegetables."

"There is need for apparatus for almost every science lesson. At present, however, we have no apparatus and experiments can not be performed until supplies are provided."

In the science classes of the upper grades illustrative material has been furnished to the three intermediate schools by the board of education. In several other schools the science is taught as a departmental subject, and some apparatus is made by the children or furnished by the school department. Very few of the schools have

collections of any kind and when present they are in the principal's office and not accessible for the children to look at at will. Several teachers report that they have personally purchased the apparatus needed for illustration in their classes, as it was impossible to get the material from the board, or, when thus ordered, it was a long time before delivery.

If nature study and science teaching are to assume the place of vital importance in the course of study of the grades that their value merits, some one with experience and training must be appointed to supervise the work.

The duties of such a supervisor should be to outline a series of topics suited to San Francisco, together with bibliographies on each subject; to train the teacher to select and teach the topics of greatest value in the environments of the schools concerned; and to aid the board of education and teacher in selecting and obtaining the illustrative material needed for the topics to be taught.¹ Nature study, elementary science, and gardening have so many points of common interest that the director of gardening would be the logical person to place in charge of all work of this nature. The home garden would be the logical center for a very large part of the nature study.

PLANTING AND HARVESTING OF GARDEN CROPS IN SAN FRANCISCO.

In order to show the possibilities of crop production under the climatic conditions of San Francisco, the following monthly planting calendars have been compiled:²

MONTH OF JANUARY.

<i>Vegetable crops that may be planted.</i> (Last of month.)		<i>Vegetable crops that may be harvested.</i>	
Root crops:	Salads:	Winter lettuce.	Potatoes, second crop.
Carrots.	Corn salad.	Cabbage.	Swiss chard.
Turnips, etc.	Lettuce.	Kale.	Celery.
	Spinach.	Carrots.	Cauliflower.
		Parsnips.	
		Turnips.	
<i>Flower crops that may be planted.</i>		<i>Flower crops that may be harvested.</i>	
Roses.	Perennials:	In bloom:	
Gladiolus.	Hollyhocks.	Narcissus, paper white.	
Lilies.	Galliarillas.	Freesias.	
Sweet peas.	Creopsis, etc.	Winter stock.	
Hardy annuals,	Wild flower	Calendula.	
such as:	seeds for		
Snapdragon.	open ground.		
Alyssum.			
Pansies, etc.			

¹ See also Ch. VI.

² From information furnished by Italian gardeners, compiled by Miss Louisa McDermott, and from information obtained from leading San Francisco seedsmen, compiled by Mr. W. G. Hummel, associate professor of agricultural education, University of California.

MONTH OF FEBRUARY.

Vegetable crops that may be planted.

Parsley.	Peas.
Onions.	Celery.
Lettuce.	Potatoes.
Radish.	Broccoli.
Beets.	Brussels sprouts.
Turnips.	Garnet Chilli
Cabbage.	potatoes.
Cauliflower.	Perennials:
Spinach.	Rhubarb roots.
Swiss chard.	Horse-radish.
Kohl-rabi.	

Flower crops that may be planted.
Same as list for January plus dahlias and all hardy annual flowers.

Perennials may still be planted, but they will not flower until August or September of same year.
All flowering shrubs and trees.

Vegetable crops that may be harvested.

Same as January.

Flower crops that may be harvested.

Roses.
Winter flowering sweet peas.
Snowflakes.
Almonds.
Calendula.
Pansies.
Daffodils.

MONTH OF MARCH

Vegetable crops that may be planted.

Same as February with beans and cucumbers added.
Celery.
Artichokes.

Flower crops that may be planted.
All of those given for February plus the half hardy annuals, such as:
Verbena Petunias.
Schizanthus. Salpiglossis.
Centaurea. Asters, etc.

Vegetable crops that may be harvested.

Lettuce.
Radish.
Onions.
Carrots.
Parsnips.

Flower crops that may be harvested.
Daffodils.

MONTH OF APRIL.

Vegetable crops that may be planted.

Same as February. If planting is required.
No potatoes.

Flower crops that may be planted

All annuals and perennials except those which are tender.

Vegetable crops that may be harvested.

Lettuce. Young beets.
Radish. Kohl-rabi.
Turnips.

Flower crops that may be harvested.

Spanish Iris. Tulipa.
Hycintha. Roses.

MONTH OF MAY.

<i>Vegetable crops that may be planted.</i>	<i>Vegetable crops that may be harvested.</i>	
Same as February. If planting is required. No potatoes.	Spinach. Swiss chard. Turnips. Beets.	Kohl-rabi. Peas. Lettuce. Radish.
<i>Flower crops that may be planted.</i>	<i>Flower crops that may be harvested.</i>	
All flowers, hardy and tender. Chrysanthemum plants. Bedding plants.	Tulips. Iris. Wild flowers, and annuals planted in early part of year.	

MONTH OF JUNE.

<i>Vegetable crops that may be planted.</i>	<i>Vegetable crops that may be harvested.</i>	
Same as February. If no planting is required. No potatoes.	String beans. Carrots. Turnips. Beets. Peas.	Cabbage. Radish. Early potatoes. Lettuce.
<i>Flower crops that may be planted.</i>	<i>Flower crops that may be harvested.</i>	
(In between seasons for planting.) Start winter stocks for winter blooms.	Roses are passing, but the garden should be ripe with all of the flowers planted in spring. Sweet peas are in full bloom.	

MONTH OF JULY.

<i>Vegetable crops that may be planted.</i>	<i>Vegetable crops that may be harvested.</i>	
February schedule of planting and second crop of beans and potatoes.	String beans. Carrots. Peas. Lettuce. Cauliflower.	Cabbage. Spinach. Swiss chard. Radish.
<i>Flower crops that may be planted.</i>	<i>Flower crops that may be harvested.</i>	
Start planting perennials for early blooming next year.	Lilies. Gladiolus and general garden flowers.	

MONTH OF AUGUST.

<i>Vegetable crops that may be planted.</i>	<i>Vegetable crops that may be harvested.</i>	
Winter leaf plants and root crops.	Cauliflower. Beans. Peas. Lettuce. Cabbage.	Carrots. Celery. Turnips. Beets.

Flower crops that may be planted.

Continue planting perennials; also
frezias for winter flowering and—
Narcissus, paper white.
Pansies.

Flower crops that may be harvested.

Dahlias.
Sunflowers.
Anemone.
Rudbeckia.
Moutretias.

MONTH OF SEPTEMBER.

Vegetable crops that may be planted.

Set out celery plants, cabbage, kale,
etc.
Cora salad.
Dill.
Lettuce.

Vegetable crops that may be harvested.

Cauliflower.
Beans.
Celery.
Lettuce.
Carrots.

Flower crops that may be planted.

Winter flowering:
Sweet peas.
Bermuda Easter-lilies.
Cakudula.

Flower crops that may be harvested.

Cosmos. Astera.
Golden Rod. Dahlias.
Chrysanthemum.

MONTH OF OCTOBER.

Vegetable crops that may be planted.

Broad beans sometimes, and sow cab-
bage seed for plants to set out early
in spring.

Vegetable crops that may be harvested.

Cauliflower. Kale.
Beans. Cabbage.
Turnips. Celery.
Carrots.

Flower crops that may be planted.

The great planting month for bulbs.

Flower crops that may be harvested.

Chrysanthemum.

MONTH OF NOVEMBER.

Vegetable crops that may be planted.

Sow hardy leaf vegetables for settling
out and garden peas.
Onions.

Vegetable crops that may be harvested.

Cauliflower. Celery.
Carrots. Turnips.
Beets. Parsnips.

Flower crops that may be planted.

Glaucous. Hardy annuals
Begonia. and perennials.

Flower crops that may be harvested.

MONTH OF DECEMBER.

Vegetable plants that may be planted.

Not any planting.

Vegetable crops that may be harvested.

Cabbage. Carrots.
Kale. Winter lettuce.
Cauliflower. Celery.
Parsnips.

Flower crops that may be planted.

Usually cold and dry and unfavorable
for planting.
Sweet peas, if not planted in No-
vember.

Flower crops that may be harvested.

ADDITIONAL NOTES.

In San Francisco tomatoes and corn will not ripen; there is not enough heat. The Italians say every month in the year is planting time, except December and early January. Beans and cucumbers should not be planted before March. With these two exceptions, all vegetables may be planted in the months of February, March, April, May, June, July, and August. Root vegetables should not be planted later than August, except the winter radish. Two crops of beans can be produced, planting time March and June; also two crops of potatoes, spring planting February and March, fall planting in July.

SUMMARY OF FINDINGS.

See Tables 218-221.

School and home gardening and elementary agriculture have not been recognized by the school board as a necessary school subject in San Francisco.

The school gardening now being carried on by a few enthusiastic teachers is indefinite and fails to achieve large educational values or pecuniary returns.

The topography of the city makes gardening difficult in some districts.

The soil is sandy on the level areas but may be improved by the addition of humus to make an excellent garden soil. Available land with improved soils is to be found in District No. 7 and in parts of Districts Nos. 2, 3, 5, and 6.

During the summer gardens must be irrigated and helpful city ordinances are needed to aid the children in productive gardening.

The building lots are small, either 25 by 100 or 25 by 137½ feet in size.

TABLE 218.—*Living conditions.*

Districts.	Number of children reported.	Number living in flats, tenements, and apartments.	Number of children who could have garden plats 20 by 20 feet.	Are there small vacant lots for all children not having back-yard space?		Are there large plats for school gardens?	
				No.	Yes.	No.	Yes.
Northeast.....	3,073	1,889	205	51	9	52	8
North central.....	746	316	137	5	10	5	8
Western.....	4,035	885	1,306	28	63	35	50
Central.....	8,316	3,900	1,627	128	41	128	42
East.....	6,514	2,500	1,599	72	56	72	59
Noe Valley.....	2,001	646	898	28	22	28	24
South.....	4,364	233	2,153	16	75	17	70
Total.....	29,679	10,369	7,915	328	276	337	261

Of 29,679 children who reported, 10,369 live in apartments, flats, and tenements; thus vacant-lot gardens would have to be found for 35 per cent of the children. Only 27 per cent of the children have land for large back-yard gardens.

In Districts Nos. 1, 4, and the central part of District No. 5 it will be difficult to find enough vacant land to supply large lots for economic gardening. The time of the children will have to be occupied by work in individual-plot school gardens or in other activities, such as "following the fruit."

The large number of children who live in flats, apartments, and tenements, where the home makes no demand on the child's time, are the ones who need out-of-school-hours occupation most.

The city school department has acquired 101 vacant tracts as sites for future school buildings. Many of these lots are near existing schools and would make excellent school gardens.

TABLE 219.—Occupations of children.

Districts.	Reported.		Boys.				Girls.				Boys.		Girls.	
	Boys.	Girls.	Working after school.	Average earnings per week.	Working in vacation.	Average earnings per week.	Working after school.	Average earnings per week.	Working in vacation.	Average earnings per week.	Average number of hours worked per week.	Number paid for home work.	Average number of hours worked per week.	Number paid for home work.
Northeast.....	1,631	1,439	362	42.20	277	43.25	72	41.76	75	43.96	8.0	227	9.0	133
North central.....	363	383	85	2.09	83	3.02	5	1.23	4	4.46	9.0	42	8.0	46
Western.....	2,012	2,023	333	1.78	273	2.95	24	1.40	19	2.09	5.5	510	5.5	443
Central.....	4,113	4,203	820	1.72	859	2.49	30	1.49	42	2.31	5.3	773	5.9	680
East.....	3,291	3,253	327	1.58	663	2.54	60	1.58	68	2.62	6.0	648	7.0	724
Noe Valley.....	1,304	1,297	227	1.46	239	2.36	15	.91	17	1.56	7.5	255	6.2	248
South.....	2,164	2,200	323	1.80	333	2.40	43	.97	47	1.36	7.0	497	7.0	448
Total.....	14,881	14,798	2,992	1.80	2,707	2.74	249	1.36	270	2.76	6.6	2,962	7.0	2,116

Of the 14,881 boys who reported, 11,889 have no definite employment outside the home after school hours, and 12,174 are unemployed during vacation.

The average earnings of the boys who work after school is \$1.80 a week and \$2.74 a week during vacation.

Of 14,798 girls from whom reports were received, 14,549 have no employment after school and 14,528 have no money-earning work during vacation.

The girls who work earn an average of \$1.36 a week after school and \$2.76 per week during vacation.

That the average city home does not furnish employment for its children is shown by the fact that the boys work an average of only 6.6 hours per week and the girls 7 hours per week. Many children report that they have no definite duties at home.

During the school year 1915-16 the schools were in session 187½ days. The children are out of school nearly one-half of the days of the year and fully one-half the daylight hours of each school day.

TABLE 220.—Economic chart.

Districts.	Total number of children in school.	Average daily attendance.	Vegetable food cost for family of five.	Following the fruit.			Children leaving school to work.	
				Number.	Date of leaving school.	Date of return to school.	Number.	Cause.
Northeast.....	5,167	4,541	857.70	91	February...	October.....	68	Need.
North central.....	1,319	1,175	78.92	6	July.....	September...	15	Do.
Western.....	5,914	5,346	81.68	3	June 1.....	Aug. 30.....	24	Do.
Central.....	12,892	11,370	88.18	19	Close of school.	September...	99	Do.
East.....	10,635	9,361	68.65	83	Close of school.	.....	140	Do.
Noe Valley.....	4,078	3,705	75.22	5	Close of school.	Aug. 23.....	20	Do.
South.....	6,717	6,145	57.29	39	.....	.....	78	Do.
Total.....	46,722	41,683	72.53	246	.....	.....	444	.....

The average cost of vegetables for a year for a family of five persons was estimated at \$72.53.

Two hundred and forty-six children were absent from school a part of the year "following the fruit."

Under the right direction "following the fruit" has educational possibilities.

During the year 444 pupils left school to work.

The cause of going to work was in most instances family need.

Children would remain in school longer if money could be earned at the same time.

TABLE 221.—Home interests of children.

Districts.	Number of children reported.			Number of children having—			
	Boys.	Girls.	Total.	Gardens.	Poultry.	Pigeons.	Rabbits.
Northeast.....	1,634	1,439	3,073	510	108	115	67
North central.....	363	383	746	293	66	16	36
Western.....	2,012	2,021	4,033	1,430	472	128	211
Central.....	4,113	4,203	8,316	2,166	283	139	252
East.....	3,291	3,253	6,544	2,065	729	347	447
Noe Valley.....	1,304	1,297	2,601	1,000	382	181	223
South.....	2,104	2,200	4,304	1,618	1,157	366	507
Total.....	14,881	14,798	29,679	8,992	3,177	1,292	2,042

At the present time gardens are made at the homes of 8,992 children of 29,679 reporting. Poultry is kept at 3,177 homes; pigeons at 1,292; and rabbits at 2,042.

Under the right direction many children might immediately use their time profitably in home projects with gardens, poultry, pigeons, and rabbits.

By profitable occupation of time children might be kept out of the juvenile court.

Home and vacant lot projects could be offered as substitute for street trades.

Thirteen teachers now in service in the grades have received special training in elementary agriculture and garden teaching.

The University of California, College of Agriculture, offers academic and practical courses for the training of other teachers.

When prevocational courses in nature study and gardening have been worked out vocational high school courses in agriculture should be supplied.

To train many children to cultivate intensively small lots and to lead them to the study of agriculture vocationally in the high school will supply, first, better trained students to the division of agriculture of the State university, and, second, successful agriculturists—a great need of the State.

CONCLUSION.

There is a great need on the part of the children of San Francisco for the proper direction of their out-of-school hours. No matter how well the classroom instruction is given, it will count for little in the life of the child if his out-of-school interests and influences are allowed to undermine his health or character.

When school and home gardening or other productive and educative occupations are offered to the children as school-directed subjects, they must be taught in terms of the life of the child and not by overformalized school methods.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

1. A director of nature study and school and home gardening should be appointed to act under the direction of the deputy superintendent responsible for vocational education and the manual arts. (See Chapter XIV.)
2. It should be the duty of this director to plan a series of nature-study projects for each school, adapted to the age of the children and the environment of the school.
3. The director should be held responsible for the working out of a complete plan of home and school gardening and other home-project activities for the city. A further study of the out-of-school activities of school children should be made with a view to incorporating in this department agricultural home projects of educative and productive value.
4. At the recommendation of the director, from 10 to 15 grade teachers should be appointed at once as school and home garden teachers. These teachers should do the regular grade teaching during school hours but should be paid an extra salary for teaching children to conduct school and home gardens after school, on Saturday, and during the vacations.

5. In the schools in which these teachers are the teaching should be made departmental to such an extent as will permit them to teach gardening in the upper grades during school hours and direct the practical work out of school hours.

6. The teachers selected should be placed for the first year in schools in districts where the vacant lots are numerous and back yards available for gardening, as in Districts 2, 3, 6, and 7.

7. Other teachers interested in garden teaching should be selected and directed in obtaining training in gardening by courses given by the director, by courses at the University of California, by observation of the methods employed by Italian gardeners, and by acting as cadet teachers to the regular garden teachers.

8. Enough garden teachers should be trained and appointed each year so that at the end of five years there may be enough such teachers to allow one for every 150 children between the ages of 9 and 15, for whom land can be had for gardening either at or within reasonable distances of the children's homes.

Chapter XVII.

DIGEST OF SUMMARIES OF RECOMMENDATIONS AND CONCLUSIONS.

For the reader's convenience a brief digest of the important recommendations which are made in various parts of this report has been prepared. The recommendations in full, together with the data and the discussion on which they are based, will be found in the chapters bearing the corresponding titles.

PRESUPPOSITIONS.

In making these recommendations it is assumed:

1. That the ideal of education in a democracy demands: (a) That in any city there shall be a single unified system, embracing all schools supported by public taxation; (b) that the control of the schools shall be vested in a board of school trustees responsible directly to the people; (c) that the fundamental purpose of the schools is to produce intelligent, loyal, and independent citizens; and (d) that the scope of the task of the schools is nothing less than the education of all the children of all the people with substantial equality of opportunity.
2. That each type of school (elementary, secondary, special) has its own particular function to perform and finds its greatest usefulness in rendering to the people its own peculiar service.
3. That all these forms of service are equally worthy and dignified if performed equally well.
4. That the people of the State and city are both willing and able to provide all funds that may be necessary for the adequate support of the public-school system and the legitimate work of any part of it.
5. That the schools exist primarily for the children and not for officers, teachers, or any other employees.
6. That the people of San Francisco desire the best service and the fullest possible returns from their public schools and are willing to make at any time such conservative changes in their organization, in the form and method of their control, in their courses of study, and in their methods of teaching as may appear clearly and certainly to be necessary or contributory to this end.

7. That the board of education, the superintendent of schools, and the civic organizations, at whose request this survey was undertaken, and all taxpayers and citizens of San Francisco desire to have such a full and frank statement in regard to their public-school system as will enable them to understand it in its main outlines at least, and such comprehensive, constructive suggestions for its improvement as will enable them to reorganize the system on a sound basis, to remedy its more important evils, correlate it with other educational agencies, adapt its work to the constantly developing life of the city, State, Nation, and the world, and to conduct its affairs wisely, and insure it a vigorous and healthy growth.

8. That all who will read this report know that education is not as yet an exact science and that much of what is accepted as fundamental is not the result of scientific investigation and demonstration, but rather the consensus of opinion tested by personal observation and experience, and this opinion is constantly developing and changing.

I. THE CITY OF SAN FRANCISCO.

1. San Francisco is a young and vigorous city, situated at one of the doors of the continent, through which must pass much of the life and business of the continent, inevitably affecting its character, its growth, and its development.

2. Few other cities in the world are so able to maintain their schools and to supply them abundantly with all buildings, equipment, and teachers that may be needed for their highest efficiency at whatever cost may be necessary.

3. The people of San Francisco and their representatives on the board of education, in the city council, and in the State legislature may and should, in planning for the future development of the public-school system of the city, take counsel of perfection.

II. STATISTICAL STUDY OF THE SCHOOL SYSTEM.

The statistical tables and comment presented in Chapter II do not lend themselves readily to further summary. The reader is referred directly to the text.

III. ORGANIZATION AND ADMINISTRATION OF THE SCHOOL SYSTEM.

1. The public schools of San Francisco can not be happily or successfully administered until the present method of administration makes way for a plan of control which will permit the educational forces in the city to do their work properly, efficiently, and well.

CHANGES IN STATE CONSTITUTION AND CITY CHARTER.

2. The State constitution of California should be amended so as to relieve the County of San Francisco from the obligation of electing a county superintendent of schools.

3. The charter of San Francisco should be amended to provide for the creation of a board of education, which should be independent of all other branches of the city government, and which should have the full control and management, through its superintendent of schools and his assistants, of all matters relating to public-school affairs in San Francisco, in the educational, business, and financial departments of the school system; the members of the board to serve without compensation.

4. The board of education should be empowered to make its budget and to determine the amount of the school tax levy, under the limitation of the State law.

5. The charter of San Francisco should be amended further to establish beyond question the proper relation between the board of education and the superintendent of schools, as its technical expert, and all of the board's employees under him.

6. The task of amending the charter and reorganizing the public-school system should be undertaken independently of personal considerations or expediency, and solely in the light of fundamentally sound principles of organization and administration.

GENERAL.

7. The board of education as a corporate body should have all the constitutional and statutory powers which are conferred upon similar corporate bodies by the constitution and the general laws of the State of California.

8. The charter should be amended to permit the tax levy to exceed the minimum tax provided by State law under the discretion of the board of education for the meeting of proper emergencies.

9. A new department should be created to have charge of buildings and grounds, including planning, erection, maintenance and repair, and supervision of the engineer and janitorial staff.

10. The board of education should reorganize its system of accounting by creating a department of accounting and statistics, which should also be responsible for purchasing and distributing equipment and supplies.

11. All playground work and all recreational activities under public auspices in the city are educational in their intent and purpose and should be under the full control of the board of education.

12. The official proceedings of the board of education should be published and made available for the inspection and reference of all officers and heads of departments of the school system and for the information of the public.

THE BOARD OF EDUCATION.

13. Members of the board of education, nine in number, representing the city at large, should be elected by the people of the city and county of San Francisco, or appointed by the mayor and confirmed by the board of supervisors, or appointed by the judges of the superior court; should serve without compensation, and should give to the duties of their office such time as the business of the board of education may require. Members of the board should be not less than 30 years of age, and should have been residents of the city and county of San Francisco for at least five years prior to their appointment.

14. The board should never be so constituted as to consist of more than four members of the same political party. The term of office of members of the board should be for six years, three members being appointed every two years after the first organization.

15. The board should organize by electing one of its members president, by electing a paid secretary who shall not be a member, and by creating two standing committees of four members each, one on business, and one on education.

16. The board should hold regular meetings once each month, and special meetings at such times as it may determine.

17. The board of education should elect a superintendent of schools and determine the amount of his salary. The term of office of the superintendent should be for at least four years.

18. The board should elect five deputy superintendents on the written recommendation of the superintendent, and one additional deputy superintendent for each 20,000 pupils in average daily attendance over and above the base number of 45,000 pupils. One deputy should be placed in charge of all activities connected with the department of buildings and grounds; one deputy should be placed in charge of the department of accounting, statistics, and supplies; the remaining deputies should be assigned to such administrative, professional, and supervisory work as the superintendent may determine. The term of office of the deputy superintendents should be for at least four years, and they should receive such salary as the board of education may determine.

19. All other persons in the employ of the board of education, in such numbers as may be necessary to a proper carrying on of the work in all departments of the public-school system, should be elected by the board, on the initiative and written recommendation of the superintendent of schools.

20. The board of education should have the right to dismiss any school officer or any other employee of the board for insubordination, or immoral or unprofessional conduct, provided the charges against such officer or employee shall first be formally presented to the board by the superintendent of schools, after due investigation, and provided further that such charges shall be passed upon finally by the board after due hearing. The board should also have the right, on the written recommendation of the superintendent of schools, to dismiss without a hearing any school officer or other employee for evident unfitness to perform the duties of his office or position.

21. The board of education should have the power to establish, organize, and maintain such classes and types of schools and departments of special work as it may deem necessary, and to change, modify, consolidate, or discontinue the same as the interests of the public-school system may require.

22. The board of education should have the power to create or abolish positions in connection with the educational, business, and financial departments of the school system as it may determine under the limitations of the State law, and to fill such positions on the initiative and written recommendation of the superintendent of schools.

THE SUPERINTENDENT OF SCHOOLS.

23. The superintendent of schools should be definitely and officially recognized as the technical expert of the board of education, employed by the board as its adviser and chief executive officer, and charged with complete control of and responsibility for the conduct of the school system under the board and for carrying out the policies determined upon by the board.

24. Upon the recommendation of the superintendent of schools the board of education should adopt such rules as may be necessary to define clearly the status of all employees.

25. The superintendent of schools should be free to determine the assignment of duties among his deputies and other assistants as the best interests of the service may require from time to time.

NEW ACTIVITIES.

26. The board of education, in accordance with plans prepared by the superintendent of schools, should provide for the introduction or further extension of those newer types of school activities which have not yet received full practical recognition in San Francisco.

27. The following new special departments should be created: (1) Evening schools and school extension; (2) school gardens, nature study, agriculture, and city beautification; (3) attendance; (4) writing.

28. Existing special departments should be continued or reorganized, as follows: (1) The department of drawing, to be called the "Department of art education"; (2) the department of music, as now; (3) the department of home economics, to be called the "Department of home economics and vocational subjects for girls"; (4) the department of manual training, to be called the "Department of manual training and vocational subjects for boys"; (5) the department of primary grades, to be called the "Department of primary and kindergarten instruction"; (6) the department of physical education, athletics, social and lecture centers, to be called the "Department of health." Activities of the social and lecture centers should be transferred to the new department of evening schools and school extension. The functions of the new department of health should be enlarged.

29. Each of these departments should have at its head a capable, technically trained officer, called director, who should be given such technical assistants, called supervisors, and such clerical assistants as may be necessary for the effective performance of the duties assigned.

EFFICIENCY OF THE STAFF.

30. The board of education should have the right, on the recommendation of the superintendent of schools, to set the standard of qualifications to be required of those seeking positions in the educational department, and to refuse to admit to examination any person who does not fully meet the requirements established.

31. The board of education should create a board of examiners, consisting of the superintendent of schools and his deputies, the function of which should be to examine and certificate all employees who are required by law to be holders of proper certificates before being eligible to employment in the school system.

32. The superintendent of schools should establish eligible lists of teachers according to rules and regulations of the board of education.

33. A plan of tenure of office of employees on the educational staff should be adopted by the board of education, upon the recommendation of the superintendent.

34. The superintendent of schools should have the authority to recommend, and the board of education should have the power to confirm, the appointments of persons best qualified for the service to be performed, irrespective of the places of residence of appointees.

35. A record of the efficiency ratings of all employees should be kept on file in the office of the superintendent of schools.

36. Upon the recommendation of the superintendent of schools, the board of education should make full use of the State law pro-

viding for those employees who, on account of long service or advanced years, have reached a state when they should be retired from the schools.

37. The superintendent of schools with his staff of deputies and special directors should provide that educational and inspirational leadership which will insure the continued training and professional advancement of teachers and other employees while in the service.

IV. FINANCE.

1. A comprehensive building program will soon make heavy demands on the board of education. The needed funds can be procured only through the further issuance of school bonds.

2. The board of supervisors in setting the school levy has been obliged to exceed the limit of the tax rate as provided in the city and county charter in order to procure sufficient revenue to support the schools. The situation thus created should be remedied by amendment to the charter.

3. The gradual increase in the school budget has no more than kept pace with the increase in the number of children to be educated, whereas such expenditures in the country as a whole have increased more rapidly than the number of children.

4. In comparison with other cities, San Francisco has assumed almost no financial burden in connection with such auxiliary agencies as school libraries, library books, promotion of health, provision for school lunches, community lectures, and social centers.

5. The cost of conducting the schools per pupil has remained practically stationary since 1908. General increase in prices of commodities during the past nine years and adjustment of the school system to a reasonable degree of improvement in methods and equipment should have caused a greater increase in the cost per pupil than has actually taken place.

6. Comparing San Francisco and the nine other cities in the same population class, San Francisco possesses much less than her share of municipal property devoted to public-school purposes.

7. San Francisco ranks fourth in the list of cities in total amount of indebtedness for all purposes and also in school indebtedness, although sixth in per capita indebtedness in both cases.

8. San Francisco ranks considerably below the average of the 10 cities in current expenditures for public schools, although outranking all the other cities in cost of maintaining the city government, fire and police departments.

9. San Francisco ranks conspicuously ahead of the other cities in per cent of total governmental expenditures devoted to expenses of both police and fire departments, but is lowest in the list in per cent devoted to school expenditures.

V. SCHOOL BUILDINGS AND GROUNDS.

1. The board of education should be given power to anticipate needs and purchase school sites of sufficient size and in strategic places before actual need drives them into the market.
2. Sites should be selected upon which it will be possible to erect buildings with east and west exposures for the classrooms.
3. Larger playgrounds should be provided.
4. Some exceedingly poor construction work has been permitted on some of the new buildings, Lowell High School is cited as illustration.
5. Good fireproofing and better and safer stairways would lessen need of fire escapes. Fire escapes now in use are not satisfactory.
6. More fan power is needed to insure proper ventilation in classrooms when windows and doors are closed.
7. Unless sufficient fan power is supplied, it will be better to heat the buildings by some form of direct radiation and depend on windows for ventilation.
8. Thermostats should be more carefully supervised, and all parts of control apparatus connected with them should be installed in places easily accessible.
9. Plenum chambers and all air passages must be kept scrupulously clean.
10. Vacuum cleaners should be so installed that they can be used easily and effectively, or not installed at all. The plan of installation now in use is wholly unsatisfactory; these sanitary helps are practically useless.
11. All basements should be cleared of all inflammable materials.
12. A central warehouse should be used for storage, and all supplies and furniture distributed therefrom as needed and returned when not in use.
13. Drinking fountains should be set at proper heights for children and kept in order.
14. Toilets. (See specific recommendations concerning toilets in section under this heading.)
15. Assembly rooms should be placed on first floor above the basement and lighted from two sides.
16. Basement rooms should not be used for classrooms unless properly lighted, free from ground air and moisture, and lighted from east or west.
17. Domestic-science rooms should be on the top floor rather than in basements.
18. Transoms in school buildings are troublesome and should be dispensed with.

19. There should be slate blackboards in all permanent buildings.
20. Many blackboards are in bad condition and need attention.
21. Set blackboards as follows: First and second grades, 26 inches above the floor; third and fourth grades, 28 inches; fifth and sixth grades, 30 inches; seventh and eighth grades, 32 inches; high school, 36 inches.
22. Blackboards should not be over 42 inches wide, except for the teacher and for an occasional special room.
23. As far as possible classrooms should receive light from either the east or west side and from no other directions.
24. Art rooms should have the north light. Laboratories, offices, and libraries may receive light from any direction.
25. Classrooms should be lighted from one side only (east or west); assembly rooms from two sides, but not from the front or rear.
26. Bottoms of windows in classrooms should be at least 4 feet above the floor.
27. Windows, properly placed, should have glass surface equal to one-fifth the floor space.
28. The windows should be kept clean.
29. Double-hung sash are easiest for women to handle.
30. Architectural ornamentations of windows introduce difficulties in lighting. Rectangular windows set as high as possible give best results.
31. The medical or health inspection should be under the control of the board of education, rather than the board of health.
32. Full time is needed of 5 physicians, 1 specialist in mental hygiene, 20 nurses, and an efficient corps of dentists.
33. More open-air schools are needed. In all new grammar schools to be erected provision should be made for open-air classes.
34. More careful segregation of defective children is of immediate importance, and a more thoroughgoing attempt to train them properly should be instituted.

VI. THE ELEMENTARY SCHOOLS.

A. SCHOOL ORGANIZATION.

1. Education of children is the fundamental purpose and concern of the public school; everything else should be subordinate to this aim.
2. Study of types of school now in operation is needed to determine comparative efficiency and economy.
3. Division of city into elementary school districts is recommended.
4. Small schools are expensive and should be abandoned as rapidly as new buildings can be provided.

5. Proportion of men principals should be increased.
6. More supervision of special subjects is needed.
7. More adequate provision should be made for education of feeble-minded and backward children and other special classes.

B. COURSE OF STUDY.

8. Newer aims of education should be recognized.
9. A more complete up-to-date course of study manual should be published for use of officers and teachers and for the information of the public.
10. Story-telling and dramatization should be systematically developed in literature and language work.
11. The unusual advantages for study of home geography in San Francisco should be more fully utilized.
12. "Cumulative reviews" should give way to a richer treatment of topics, to comparisons, and to reflective thinking.
13. Adequate libraries and supplies of supplementary materials are greatly needed.
14. Closer correlation and more continuity of thought should characterize the various subjects running through the grades.

C. DISCIPLINE AND INSTRUCTION.

15. More lively and graphic forms of instruction should be employed in primary grades.
16. In intermediate and grammar grades there should be more stimulating thought and less memoriter work.
17. There should be more systematic development of free oral discussion in history, geography, nature study, and literature.
18. Free and constant use of blackboard by teacher and pupils as means of expression should be encouraged.
19. Home geography with excursions and discussions should be used as a means of enriching all studies.
20. School studies should reflect more of real life.
21. Textbooks should be supplemented by material from other sources.
22. Pupils should be expected to put forth more effort in solving problems and in self-reliant thinking.
23. Departmental teaching should be encouraged.
24. Definite measures should be taken for encouraging growth and improvement of teachers in classroom methods.
25. Some classes are too large to permit necessary amount of individual instruction.

D. SUPERVISION.

26. The greatest need of school system is for vigorous, stimulating leadership.
27. More adequate school records should be kept.

E. SELECTION, PROMOTION, IMPROVEMENT, AND TENURE OF TEACHERS.

28. System of promotion and retirement should be based on merit.
29. More effective measures should be taken for improvement of teachers in service and for encouraging development of professional spirit and attitude.

VII. SUGGESTED BY TESTS OF THE ACHIEVEMENTS OF PUPILS.

PENMANSHIP.

1. So far as form alone is concerned, the writing of the San Francisco children is good.
2. Whether this excellence is attained at the sacrifice of speed or in company with the attainment of a satisfactory speed is not established by these tests.
3. The particular type of progress from grade to grade should be studied critically, since it deviates considerably from the practice in other cities.
4. Variability among schools should also be studied carefully.

SPELLING.

5. The city as a whole ranks considerably above the standard average for a large number of cities.
6. Girls seem to spell uniformly better than boys.
7. Further tests should be made in all the schools to determine the causes of the wide variations in achievement.

READING.

8. There is need of standardizing the work in reading for the system as a whole, so as to secure a more definite progress in ability from grade to grade.
9. A reasonable degree of uniformity in progress among the different schools should be sought, to facilitate the transfer and promotion of pupils.
10. Reading tests on a much larger scale should be conducted in order to determine standards and to assist in eliminating extreme variations.

ARITHMETIC.

11. The San Francisco children made an unusually good showing in speed, but did not do so well in accuracy, and did not show the usual increases in accuracy with progress through the grades.
12. More emphasis should be placed on accuracy in all-phases of arithmetic work.
13. A study should be made to determine the causes for the apparent inferiority of the seventh grades in several of the tests.
14. A study should be made to determine the causes of the extreme variations in ability among the several schools and grades.
15. A study should be made to determine the possibility of excusing certain individual pupils from unnecessary drill.
16. More emphasis is needed on certain fundamental operations and on problems involving reasoning.

VIII. THE HIGH SCHOOLS.

1. The number of high schools reporting to the Bureau of Education increased nearly three times as rapidly as the total population during the period 1890 to 1915, indicating a great popularization of high-school education.
2. Compared with other cities in the same population class, San Francisco has not shared proportionately in the movement for the expansion of public high-school facilities which is characteristic of the country as a whole.
3. The realization of the ideal of a high-school education for practically every normal boy and girl is now believed by many to be a reasonable object of endeavor.
4. The high school should undertake to help all boys and girls in their efforts to prepare for useful and satisfying careers in many different directions.
5. The important features of a successful high school are: (a) An adequate building; (b) ample equipment; (c) varied courses of study; (d) adequate and efficient teaching force; (e) efficient administrative machinery; (f) provision for the physical and social welfare of students and faculty; (g) inspiring leadership. In all of these respects the high schools of San Francisco are deficient to greater or less degree.
6. The school authorities in San Francisco are to be commended for the adoption and announcement of the following progressive program with reference to the high-school courses of study:
 - a. Proposed abandonment of the principle of "type" high schools.
 - b. Virtual acceptance of the principle of the cosmopolitan curriculum.

c. Recognition of the necessity of providing for a variety of aims on the part of the student body.

d. Recognition of the elective system in planning four-year programs for students.

e. Arrangement of studies in curricula, or "groups," as suggestions for the assistance of pupils in planning their work to accomplish certain definite ends.

f. Tentative inauguration of a "continuation plan."

7. In the actual administration of this program, however, it is noted that: (a) The high schools are not so located as to provide equality of educational opportunity to all sections of the city; (b) only two of the seven curricula are offered in all high schools; (c) some important groups of elective subjects are offered in only one or two schools; (d) in actual practice the "interlocking system among schools" has not secured for students the advantages expected of it.

8. Needed changes in the course of study are: (a) The actual benefits of the "all-inclusive" course of study should be made available to students in each high school; (b) at least one modern foreign language in each high school, and a second language if demanded; (c) elective courses in each high school in freehand drawing and design, and music; (d) courses in science strengthened and extended, especially social science; (e) strong courses in shopwork and drafting for boys, home economics for girls, and commercial subjects for both boys and girls, in each high school.

9. In the revision of high-school courses of study, due consideration should be given to desirable adjustments to the industrial, commercial, and manufacturing life of the city.

10. In any school differentiation in courses of study should be according to definite and predominating needs of the district in which the school is located. Greater differentiation may be made in the last two years.

11. Needed changes in material facilities require that additional buildings be erected at an early date on the land adjoining the High School of Commerce and the Mission High School, and that new buildings be provided as early as possible for high schools needed in Richmond and North Beach. The new schools should at first be junior high schools and should be gradually developed into senior high schools.

12. High-school districts should be formed with more definite boundaries, following the establishment of high schools in other parts of the city.

13. Both boys and girls should be admitted to all high schools.

14. Each high school should have a good reference library in charge of a trained librarian, with an ample appropriation for the purchase of reference books.

15. High-school buildings not provided with individual lockers for pupils should have such provision made at once.
16. Evening schools should be opened in all the high-school buildings, with adequate provision for faculty, equipment, and supplies.
17. Clerical assistance and suitable office equipment should be provided in each high school.
18. All high schools should be required to keep uniform record blanks of all kinds, permanent student records, and records of graduates.
19. The amount of work done by teachers in all the high schools, measured by the number of periods per day they are busy, is too great, and many classes contain too many students for effective work.
20. The number of teachers should be increased to such an extent that the usual number of daily periods of classroom instruction per teacher shall not exceed five, and no teacher should be required to instruct more than six classes a day.
21. The size of classes should be reduced gradually until the usual maximum average attendance does not exceed 25 pupils per class. Only in exceptional cases should recitation classes be permitted to exceed 30.
22. A professional spirit among the teachers should be encouraged, and principals and heads of departments should be given the authority necessary for the encouragement and direction of such a spirit.
23. An increase should be made in the salary schedule of high-school teachers so as to encourage study, travel, and participation in teachers' associations and other means of stimulating professional growth. The city should have a high-school teachers' association, and active membership in this should be regarded as one of the elements determining promotion in position and salary.
24. High-school principals should be given more responsibility and more authority.
25. In each high school the principal and each head of a department, subject to the approval of the superintendent, should be charged with the direction and work of that department.
26. In each high school there should be advisory committees, appointed by the principal, for the purpose of assisting students in the choice of studies and in giving them such special help as they may need later.
27. In each high school there should be a dean of women and a physical director.
28. The social life of the school should be definitely fostered by the faculty and directed by the dean of women.
29. The dean of women and the principal, acting as dean of men, should function in the life of the school in many positive and helpful ways.

30. Effort should be made to utilize the various informal agencies available for the encouragement of a more positive type of desirable school spirit among the students, and for the development of that fine spirit of earnest enthusiasm which might easily characterize every one of these high schools.

31. A community center should be organized at each high school.

IX. CIVIC EDUCATION.

1. Responsibility for all civic and social education in the public school should be centered in one deputy superintendent.

2. Subordinate to this deputy superintendent there should be (a) a director of health and recreational activities, and (b) a director of civic education.

3. The director of health and recreational activities should have supervision over physical education and athletics, medical inspection and clinics, playground activities, and the recreational activities of community centers.

4. The director of civic education should be responsible for planning and organizing civics instruction in day and evening schools, training and supervision of teachers giving civics instruction, assisting teachers in interpreting current events for instructional purposes, planning and directing community forums, and supervision of pupil participation in school affairs and community activities.

5. Pending the administrative reorganization suggested, improvement in civics instruction should be sought through conferences of principals and teachers.

6. The departments of "history" in the high schools should be renamed departments of "social study."

7. Heads of departments of social study in high schools should assume cooperative responsibility for social studies in the seventh and eighth grades.

8. In arranging schedules of teachers of social studies, ample time should be allowed for teachers' preparation.

9. A committee should be appointed to reorganize the course of social studies in accordance with the spirit and suggestions of this report.

10. Teachers should be supplied with a sufficient number and variety of textbooks and material for supplementary reading.

11. Adequate libraries of reference material should be provided.

12. Closer cooperation between the schools and the public library should be sought.

13. The courses in social studies in evening schools should be more closely adapted to the needs and conditions of students in these schools.

14. More adequate and more appropriate evening-school facilities should be provided for adult foreigners.
15. Steps should be taken to secure more general and more regular attendance of adult foreigners not yet naturalized.
16. A course of citizenship instruction should be provided, adapted to the needs of adult foreigners.
17. Special emphasis should be given to civics instruction in schools attended by large groups of foreign children.
18. Community centers should be developed as rapidly as possible in schools ministering largely to foreign groups in the population.
19. Community centers should be maintained by the board of education from public funds.
20. Elementary-school pupils should be given a larger share of responsibility for the conduct of the school life as a means of citizenship training.
21. Pupil participation in the management and direction of school activities should be made an important factor in the civic training of high-school pupils.
22. Pupil participation in community activities should be encouraged as a means of civic education, but always under proper safeguards.
23. Gardening and playground activities should be made factors in civic education.
24. Public playgrounds should be administered by the board of education, rather than by a separate commission.

X. MUSIC IN THE PUBLIC SCHOOLS.

1. The system of music in the elementary schools of San Francisco implies greater regard for music as vocal expression than for music as aural impression. It should be recognized that music is essentially something to receive through the ear rather than to express through the voice.
2. The vocal practice of the children is in the main admirable.
3. The segregation of boys from girls for part singing, and the assignment of boys to a low-voice part is a mistake. It is the only serious mistake that is entirely within the control of the music department.
4. The treatment of changing voices in the upper grades is bad.
5. In general, part singing is comparatively undeveloped or poorly treated.
6. Monotones are very competently instructed and cured.
7. The quality of the sight singing is only fair.
8. Theoretical instruction is quite thorough and general.

9. The spirit in the singing, both as to its musical and social aspects, and on the part of both pupils and teachers, is beautiful.

10. There is wise recognition of the worth of the musical inheritance that foreign children possess, and this inheritance is made to contribute to their development as American citizens.

11. The development of patriotism, national and State, which is effected by the singing of patriotic songs, is an incidental feature of value, especially in a cosmopolitan city like San Francisco.

12. Broadly speaking, the system of practice in the elementary schools tends to the attainment of general social and humanistic ends rather than to the development of specific musical culture and appreciation.

13. The time given to music in the elementary schools is insufficient.

14. The greatest shortcomings arise from conditions that lie partially or wholly outside of the sphere of departmental authority:

a. Orchestral playing receives academic approbation but no material and systematic official support.

b. The children in the elementary schools are on a starvation diet with regard to the quantity of musical material provided.

c. The number of music supervisors in the elementary schools is insufficient.

d. Division of authority in the overhead control of the department of music is a serious obstacle to good work.

15. The adoption of the new course in music for the high schools is a most fortunate step.

16. Suitable equipment for the musical appreciation classes should be provided.

17. Close watch should be kept upon the development of the work in high schools that now receive only part of the time of a teacher, and the probable early need for two or more teachers should be promptly anticipated.

18. The teachers of music in the high schools are not organized as a corps and methods are likely to become unfortunately divergent in consequence.

19. The same confusion as to official and unofficial instruction that disturbs elementary-school work in music disturbs, in like manner, the high-school work.

20. Orchestral playing has had an inspiring history in the San Francisco high schools, and given new adequate encouragement and support it should soon reach quite extraordinary attainments.

21. Definite official announcement concerning school credit for the study of music under outside teachers should be made, and steps taken to encourage what is likely to be, in San Francisco, a notable development of a valuable phase of school music.

22. Music should have greater place in the evening schools, especially in the social-center work.

23. Every worthy activity in this and all other divisions of the system that arises spontaneously and moves forward without official support (as was the case with an orchestra in the evening school during the past year) should be given official support.

24. The appointment of a director of music whose recommendations would be followed would help in large measure to develop the sort of music system that San Francisco deserves and might easily have.

XI. INSTRUCTION IN ART.

1. The school grounds should be improved, and an expert interior decorator employed to improve the interiors of school buildings.

2. In each school building there should be maintained a constantly growing collection of work done by the children.

3. Schoolrooms should be furnished with pictures, appropriate to the grade of the room in the elementary schools and to the subject of instruction in the high schools.

4. A school library for purposes of art instruction should be started in every school building.

5. Each school building should have a collection of beautiful things.

6. The valuable reference material now stored in the various museums of the city should be made available for use in the schools.

7. An orderly and well-defined course of instruction in art should be formulated for all the schools of the city.

8. During the first six years in school, such a course should emphasize the importance of putting the children in possession of the tools, the elements, and the fundamental processes of delineation.

9. After the sixth year emphasis should be placed upon exercises which deal with the elements of beauty, such as subtlety of proportion, refinement of line, gradation of value, modulation of color, and harmonious relations of parts calculated to develop discrimination and taste.

10. The course of study should insist upon a perpetual and vital interrelation between all lessons in drawing, design, and color, and the enjoyments and activities of daily life, and the common handicrafts.

11. Advisory committees of business men, artisans, artists, and other specially interested persons should be formed to consult with the director of art instruction and the supervisors as to the courses offered.

12. In the evening schools opportunities for practical instruction in the drawing related to the various trades should be greatly extended.

13. The organization of the art department should include: (a) A director; (b) a corps of at least five broadly trained supervisors; (c) in all intermediate, high, and evening schools there should be well-trained special teachers of drawing and design; (d) in all other buildings containing pupils above the sixth grade the departmental system should be extended to include art instruction; (e) during the first six school years instruction in drawing should be given by the regular grade teachers under the oversight of the supervisors; (f) the classes for individual instruction and practice for teachers should be continued, and attendance of teachers notably inefficient in drawing should be made compulsory.

14. Provision should be made to enable the board of education to comply with the law requiring that "necessary supplies for the use of the schools must be furnished" free to pupils.

15. Adequate provision should be made for discovering, encouraging, and training specially talented children.

16. The possibility of utilizing students in the normal classes at the Art Institute as special part-time teachers in the public schools, under the supervision of the director of art instruction, should be considered.

xii. HOME ECONOMICS

1. All courses in home economics need reorganization. Instruction in this subject should begin in the fifth grade and logical sequence of lessons should be arranged for the fifth, sixth, seventh, and eighth grades and the first year of the high school.

2. Sewing should be introduced in all seventh and eighth grade classes and special teachers for this subject should be provided in these grades.

3. Sewing should be given in fifth and sixth grade classes by grade teachers or by Law School students. Provision should be made for giving grade teachers the preparation needed to enable them to teach sewing.

4. The teaching staff in home economics should be reorganized and placed under a director who should have control of all home economics work in the public schools of the city and the assistance of a group of not less than four competent supervisors.

5. The teaching staff in home economics should be increased and arrangements made for each teacher to have one afternoon each week for neighborhood work.

6. Teachers should be encouraged to take summer-school courses, and they should be able to do this without loss of salary.
7. Centers of training in housekeeping should be provided in a few carefully selected districts.
8. The number of night classes in home economics should be increased, and afternoon classes for women and Saturday afternoon classes for working girls should be opened.
9. Methods of purchasing food supplies should be so changed that the director and teachers may make all purchases under general rules and regulations.
10. The director of home economics should purchase all equipment after bids are made and accepted.
11. Architects should consult the director of home economics before buildings in which home economics is to be taught are planned.
12. Provision should be made for permanent exhibits of home-economics work and for a traveling exhibit that can be taken from school to school.
13. The sewing rooms in intermediate schools are not adequately equipped.
14. All food-preparation rooms now in use should be put in clean and sanitary condition.
15. New centers should be equipped for teaching home economics and practice houses should be provided in certain localities.
16. In the Polytechnic High School a small practice kitchen and dining room should be provided by putting in inexpensive partitions, and classes in household management should be organized.
17. In the Mission High School sewing should be taken from the insanitary places and sewing rooms. Food-preparation rooms and housekeeping rooms should be equipped elsewhere in the building.
18. In the Girls' High School rooms on the first floor not now used to advantage would make satisfactory rooms for food preparation and housekeeping.
19. Provision should be made in the Commercial High School for work in sewing, food preparation, and housekeeping.
20. In all schools now teaching food preparation and in all schools hereafter supplied with cooking equipment, teachers' luncheons should be prepared.
21. The preparation of certain foods in quantities and the sale of the same should be permitted.
22. Cooking and sewing should be scheduled for the same morning in the seventh and eighth grade classes so that work time may be exchanged.

23. Home-economics classes should not contain more than 20 students, and in cosmopolitan and special schools not more than 12 students.

24. Courses offered in the several schools should be varied to meet the needs of the locality in which given.

25. Cooperation between the home-economics departments of the public schools and the homes of the children, the business men of the city, and all organizations interested in the social betterment of the city of San Francisco should be encouraged.

XIII. MANUAL TRAINING.

1. In grades one to six not less than one-tenth to one-eighth of the present school time should be set aside for elementary hand work.

2. In grades seven and eight (and nine, if the junior high-school plan be adopted) the manual arts should receive not less than one-fifth to one-fourth of the present school time, five to seven hours weekly.

3. A flexible program should be arranged which will permit special groups of pupils to elect even more than these amounts of time.

4. Elective courses should be offered in all high schools, containing varying amounts of manual arts work.

5. Work in the manual arts should be extended downward through all the grades in the elementary schools, and upward in all the high schools.

6. The primary aim of the manual arts in the lower grades should continue to be general education.

7. Beginning with the seventh school year the prevocational aim for most children, and the vocational aim for some children, should be given definite recognition.

8. The introduction of greater variety in shop equipment, processes, and materials is regarded as essential if the proposed aims are to be realized.

9. Emphasis should be placed on problems in the manual arts which require constructive thought on the part of the pupil, which stimulate the development of ingenuity and initiative in dealing with new situations, which insure the formation of correct habits, and which encourage cooperative effort.

10. Supervision should take the form of training teachers in the service, directing their reading and study, providing for conferences, demonstration lessons, and other specific helps.

11. Under one deputy superintendent should be centered responsibility for all activities in the manual arts, vocational guidance, and vocational education.

12. Under the immediate direction of this deputy superintendent should be grouped a staff of trained directors of special subjects, including at least: (a) Fine arts, (b) home economics, (c) manual training, (d) vocational education, including vocational guidance.

13. Higher salaries should be paid for teachers and directors of special subjects.

XIV. VOCATIONAL EDUCATION.

(A) VOCATIONAL GUIDANCE.

1. The work which has been begun in a few centers should be encouraged and extended as rapidly as suitable persons can be found or prepared to direct it.
2. The work in vocational guidance, the manual arts, and vocational subjects should be developed under a broad progressive policy, insuring unity of aim and coordination of effort in these closely related fields.

(B) PREVOCATIONAL EDUCATION.

1. In recognizing the prevocational aim in grades seven, eight, and nine, there should be provided a variety of activities sufficient to include some representation of each of the important groups of possible vocations from among which it is assumed that a choice is to be made.
2. A complete plan, when finally worked out, should include the introductory phases of each of the main subdivisions of vocational education: Professional, agricultural, commercial, industrial, and home making.
3. The existing facilities for manual training, fine arts, home economics, etc., should be utilized as the basis for developing prevocational courses.
4. Experiments should be undertaken, especially in the intermediate schools, to determine what types of prevocational classes will be most helpful.

(C) VOCATIONAL EDUCATION.

1. Special vocational courses should be developed in salesmanship, business methods, carpentry, and automobile work.
2. The development of further vocational courses should be based on actual experience with these courses.
3. Each vocational course should aim definitely at the achievement of a certain status for the graduate which can be expressed in terms of ascertained requirements of commercial or industrial establishments.

4. The entrance requirements, and the conditions under which the work is to be done, should be made sufficiently flexible to encourage the attendance of those who need the instruction and can profit by it.

5. The attempt to prepare students for college through these vocational courses should be definitely abandoned.

6. Instructors in vocational courses should have had successful and varied experience in the occupations for which it is proposed to prepare the students, and should have special fitness for the work to be undertaken.

7. Advisory committees should be organized to assist in the development of the various types of school and courses of study that may be determined upon. These committees should include representatives of employers and workers in each important group of occupations concerned.

8. Further study should be made of vocational courses for the evening schools, continuation classes, short unit courses, and dull-season courses.

XV. EDUCATION OF THE IMMIGRANT.

1. A director of evening schools should be appointed, who should also be a deputy superintendent of schools.

2. A new course of study should be drawn up, which should pay proper heed to racial differences, individual needs, and educational principles.

3. Textbooks should be selected which are adapted to the needs of the adult students.

4. Free textbooks should be furnished.

5. An adequate system of grading foreign students should be introduced.

6. Classes in citizenship, in preparation for the naturalization examination, should be organized under public-school auspices.

7. An adequate system of record cards should be devised, installed, and kept up to date.

8. Special certificates should be required for teaching evening classes for foreigners.

9. Training classes for the preparation of teachers of adults should be provided until an adequate supply of teachers is available from other sources.

10. Systematic efforts should be made by the school authorities to gather the non-English-speaking population into school.

11. Provision should be made for educational work for foreign women.

12. The salary schedule for the school system should be revised to provide for the employment of teachers, principals, and directors.

under the following plans of service: (1) Morning and afternoon, (2) morning and evening, (3) afternoon and evening.

13. All provision for the education of the foreigner should be under the control of the public educational authorities.

14. The board of education should take the necessary action to put these recommendations into effect and provide funds for the execution of the same.

XVI. SCHOOL-DIRECTED GARDENING.

1. The appointment of a supervisor of nature study and school and home gardening, to act under the direction of the deputy superintendent responsible for vocational education and the manual arts.

2. The duty of this supervisor should be to plan a series of nature study projects for each school, adapted to the ages of the children and the environment of the school.

3. The supervisor should be responsible also for the development of a complete plan of home and school gardening and other home-project activities for the city.

4. Upon the recommendation of the supervisor, from 13 to 15 grade teachers should be appointed as school and home garden teachers.

5. Special emphasis should be placed on these activities in schools which are organized on the departmental plan.

6. These special teachers should be placed first in those districts in which gardening space is most available.

7. Other teachers interested in gardening should be encouraged to prepare for this special work.

8. A sufficient number of gardening teachers should be trained and appointed so that at the end of five years every school having a fifth, sixth, seventh, or eighth grade will have a teacher of gardening.

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