

DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1923, No. 4

JUNIOR HIGH SCHOOLS
of BERKELEY
CALIFORNIA

PREPARED BY JAMES T. PRESTON, CHAIRMAN
W. B. CLARK, H. H. GLESSNER, AND D. L. HENNESSEY
IN COOPERATION WITH H. B. WILSON
SUPERINTENDENT OF SCHOOLS



WASHINGTON
GOVERNMENT PRINTING OFFICE
1923

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.

AT
10 CENTS PER COPY

PURCHASER AGREES NOT TO RESELL OR DISTRIBUTE THIS
COPY FOR PROFIT.—PUB. RES. 57, APPROVED MAY 11, 1933

II

CONTENTS.

	Page.
I. The city of Berkeley.....	1
II. The Berkeley school system.....	4
III. Establishment of the junior high school system.....	9
IV. The objectives of the junior high school.....	12
V. The teaching staff.....	16
VI. The curricula.....	17
Courses offered in the junior high schools.....	17
Physical education.....	19
Mathematics.....	19
English.....	20
Science.....	23
History.....	24
Languages.....	24
Typing.....	25
Stenography.....	25
Art.....	25
Music.....	26
Home economics.....	28
Industrial arts.....	28
VII. The Burbank Junior High School.....	33
VIII. The Edison Junior High School.....	35
IX. The Garfield Junior High School.....	38
X. The Willard Junior High School.....	41
XI. The school counseling program.....	42
XII. Contributing agencies.....	46
XIII. Summary.....	48

III

JUNIOR HIGH SCHOOLS OF BERKELEY, CALIF.

I. THE CITY OF BERKELEY.

Just as certainly as a plant is influenced in its growth and fruitage by its physical environment—the soil, climate, and the like in which it grows—so is every school system influenced in its development by the physical and social elements which obtain in the community served. These factors influence both the inception and development of the schools. Brief discussion of these elements is therefore necessary in order that the setting of Berkeley's educational effort may be more adequately understood.

Berkeley, "the city of opportunities," lies directly opposite the Golden Gate, the beautiful entrance to San Francisco Bay, on the east or main line shore of this famous bay. It is just 10 miles from Berkeley's shoreline, which is her western boundary, to the Golden Gate.

From the bay shore the land slopes gradually for 3 miles to the low and gradually rising world-famed Berkeley Hills, which are notable for their beauty of setting, their kaleidoscopic coloring, and the unsurpassed marine and mountain views which may be seen from them. Berkeley's area falls into three readily distinguishable sections. From the city's water edge to Eighth Street is the industrial and manufacturing section, in which are about 125 busy industrial plants, comprising 90 per cent of Berkeley's manufacturing enterprises, from which annually there is sent out more than \$45,000,000 worth of products. From Eighth Street east to the beginning of the foothills, a distance of about 2 miles, is the portion of the city given over to business, intercity traffic, and the homes in which 80 per cent of Berkeley's citizens live. To the east of this central area and extending far up into the hill region is a section given over entirely to residences and schools. Here are to be found many beautiful residences. In the center of this beautiful eastern section of the city, and occupying more than 600 acres of hill and gently rolling plain land, is the University of California, with its more than a score of beautiful buildings, many of which are of white granite.

It should also be held in mind that Berkeley, a city of 70,000 inhabitants, is an integral part of a great metropolitan area composed of almost 1,000,000 inhabitants. Immediately to the south are Oakland and Alameda, with a combined population of about 260,000. Across the bay to the west is San Francisco, a rapidly growing city of 600,000 inhabitants. Almost adjacent to Berkeley on the north lies Richmond, a manufacturing city with a population of 25,000, while across the bay to the northwest are two beautiful cities of smaller size, San Rafael and Sausalito.

The soil about the entire bay is generally very deep, rich, and productive, having been built up by rich alluvial deposits. Except in the hill areas, Berkeley's soil is notably rich and productive. As a result the city is beautifully planted and decorated by green foliage and luxurious flowering plants.

The climate of Berkeley provides ideal living and working conditions. The thermometer rarely falls to the freezing point in winter and seldom rises above 80° in summer. This even temperature is largely due to the moderating effect of the Japan current which washes the shores of California, and to the fact that the Coast Range of Marin County on the peninsula opposite Berkeley cuts off much of the strong ocean breeze and tempers the climate. The summer temperature is kept low by the sea breezes and the morning high fog. The average rainfall is 27.9 inches, most of which falls during the three winter months. Rain seldom falls from May to October.

Health statistics for Berkeley show that it is a very healthful place in which to live. Berkeley has the lowest infant mortality statistics of any city of its size, the mortality rate being 39, as compared to 43 in the next lowest city. The average rate for the 63 cities in the same class in the United States is 79.4. The mortality rate for all ages in Berkeley is 9.6. This very favorable statistical record is due to the high average of intelligence of the population, to the pure water supply, scientific supervision of food and dairies, good sanitation, and healthful climate.

The growth of Berkeley has been phenomenal. From 1890 to 1920 her population increased from 5,101 to 56,036, an increase of 1,100 per cent. Additions to the city during the last two years, accompanied by rapid growth, give her now a population estimated at 70,000, an increase of 1,300 per cent over 1890. Despite the great rate of increase, the growth has been steady and normal. Berkeley has never experienced a "boom" growth.

In character the population of Berkeley is predominantly of excellent racial stock. The 1920 census data are as follows:

	Number.	Per cent.
Native born of native parents.....	28,669	or 51.2
Native born of foreign parents (one or both parents foreign).....	15,954	28.5
Foreign-born white	9,573	17.1
Foreign and native-born orientals	1,333	2.3
Negroes	507	.9

It will be seen from these figures that 79.5 persons out of every 100 in Berkeley were born in the United States, and 51 out of every 100 were born of parents both of whom also were born here. This is an excellent showing in comparison with other cities.

The foreign-born whites are also of good stock, being comprised of people from the following sources: Armenia, Atlantic Islands, Aus-

tralia, Belgium, Canada (French), Canada (other), Central America, Czechoslovakia, Denmark, England, Finland, France, Germany, Greece, Hungary, Ireland, and Austria.

The wholesome uplifting influence of the University of California is a potent force in developing a high type of citizenship in Berkeley and in arousing in the people and the city generally the worthiest sort of lofty ambitions. This is owing to the presence of a faculty of 600 cultured men and women, together with their families, and to the effect on the people of Berkeley of studying in such large numbers in the regular and extension courses offered by the university. Further, a community of this sort naturally draws unto itself a large population which wishes to live in an atmosphere of culture and refinement and which wishes the advantages of a great institution of learning for the youth which constitute a part of such a population.

From the standpoint of wealth Berkeley is just below the median in true per capita wealth of seven California cities for which accurate data are available, as shown in the following table:

Cities.	True wealth per capita.	Per capita value of school property.	Per capita cost of education.
San Diego.....	\$1,250	\$38.17 (4)	\$13.47 (1)
San Jose.....	1,203	53.00 (4)	18.49 (2)
Berkeley.....	1,450	57.39 (6)	15.42 (3)
Fresno.....	1,408	88.89 (7)	18.49 (7)
Alameda.....	1,556	33.18 (1)	14.88 (4)
Sacramento.....	1,787	38.92 (3)	14.67 (5)
Pasadena.....	2,549	53.49 (5)	26.49 (6)

Despite the fact that Berkeley's wealth is below the median, the additional columns introduced in the table show that her per capita expenditures for education have been good in comparison with the other cities. Berkeley ranks sixth, or next to the highest, in her per capita investment in school property, and fifth, or just above the median, in her per capita expenditure for educational costs.

Although the 1920 census returns on occupations are not fully complete as yet, the following data are serviceable as showing the distribution of the occupational interests of Berkeley's population:

Number engaged in each occupation for each 1,000 employed.

Occupations.	Berkeley, 1920 census. ¹	Berkeley, 1910 census.	In all cities, 1910.
1. Manufacturing and mechanical industries.....	282	274	288
2. Trade.....	155	185	135
3. Domestic and personal service.....	97	147	202
4. Transportation.....	65	79	68
5. Clerical occupations.....	158	122	165
6. Professional services.....	188	148	85
7. Public service.....	19	15	19
8. Extraction of minerals.....	24		3
9. Agricultural and animal husbandry.....	24	17	6

¹1920 data not yet available for other cities.

JUNIOR HIGH SCHOOLS OF BERKELEY, CALIF.

Number by sex engaged in each occupation for each 1,000 employed.¹

Occupations.	Males.		Females.	
	In Berkeley.	In all cities.	In Berkeley.	In all cities.
1. Manufacturing and mechanical industries...	331	473	112	313
2. Trade.....	217	175	70	96
3. Domestic and personal service.....	88	69	349	348
4. Transportation.....	98	119	16	18
5. Clerical occupations.....	104	82	187	135
6. Professional services.....	115	43	261	88
7. Public service.....	11	23	.8	0
8. Extraction of minerals.....	10	6	.2	0
9. Agricultural and animal husbandry.....	21	10	10	2

¹ United States census 1910.

From the above data it is seen that the occupations which run distinctively high in comparison with other cities are the trades, clerical service, professional service, and public service, all of which require above the average order of ability. The industrial and manufacturing development now going on in Berkeley are rapidly increasing the percentage of her population engaged in these occupations.

From the foregoing facts it will be seen that Berkeley's educational problem is and has been that of meeting the varied needs of a population such as may be found in any typical American city. The varied population needs, together with the rapid growth, have brought many difficult problems to Berkeley, just as they have to other cities. Such a remarkable growth record as Berkeley has experienced has made the burden very heavy for adequately financing the erection of sufficient school buildings. The city did not find it possible to meet this problem adequately until the bond issue following the war, which provided \$2,321,000 for the purchase of land and the erection of buildings. As a result of this expenditure, the physical needs of the schools are fairly adequately provided for at this time.

II. THE BERKELEY SCHOOL SYSTEM.

The school system of Berkeley provides for the education of the youth of the city through kindergarten, elementary school, junior and senior high school. The detailed plan of organization will be briefly indicated.

There are 17 elementary schools in Berkeley, 3 of which have been added during the past four years. Each of these schools provides training through the kindergarten and the first six grades.

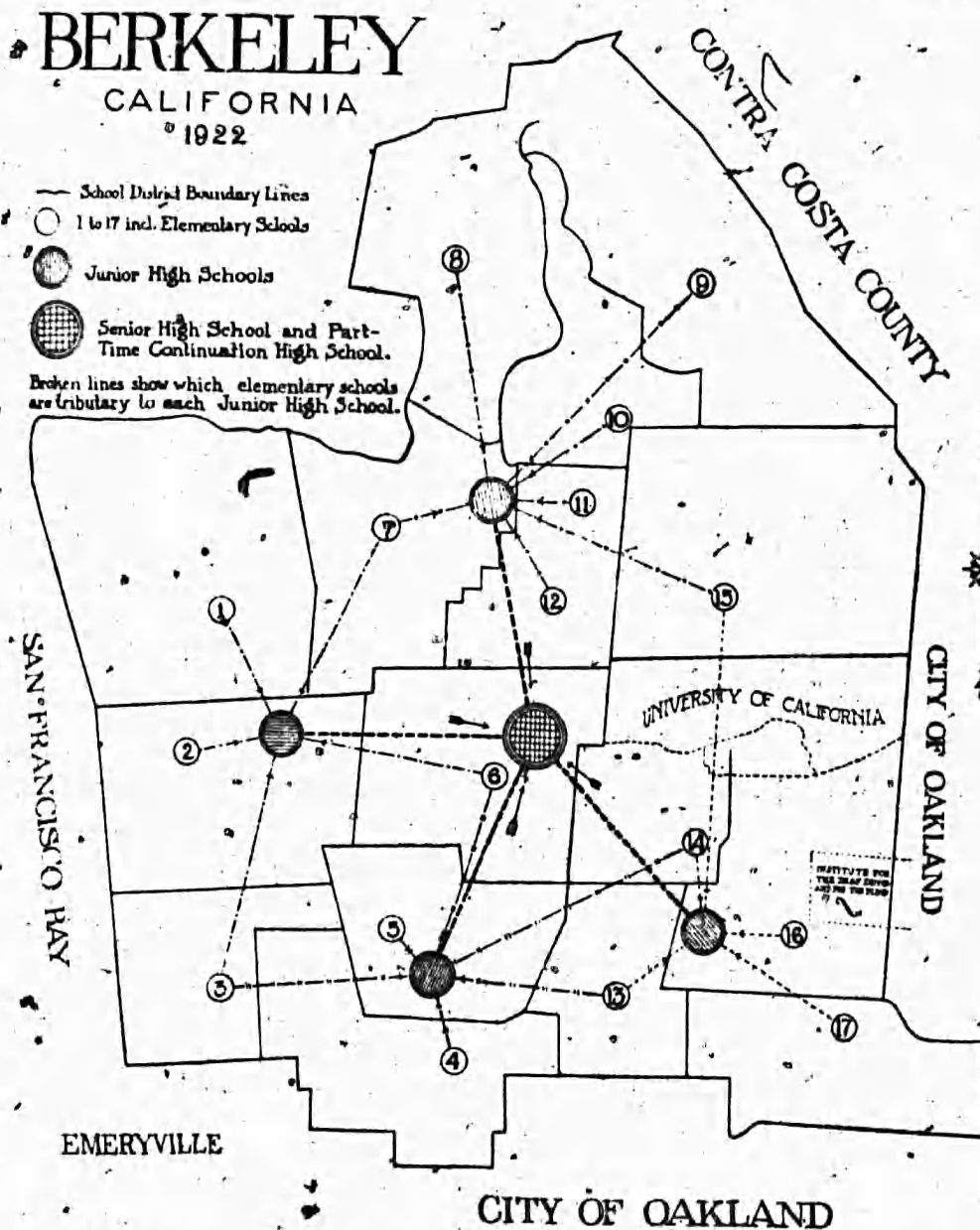
There are 4 junior high schools, each of which includes grades 7, 8, and 9. They are so distributed that each serves approximately one-fourth of the population of the city.

There is 1 senior high school accommodating pupils of grades 10, 11, and 12. On account of the large number of children who come

to the senior high school lacking a few credits, it is necessary occasionally to offer ninth-grade work in some subjects.

The Part Time Continuation High School is located in a building on the same grounds with the senior high school. This school is now in the third year of its operation.

The location of each of these schools is shown on the accompanying map. Lines are drawn from each elementary school to the junior



high school, where its graduates naturally go. There is a line also connecting each junior high school with the senior high school, which is centrally situated.

The total attendance upon the schools of various types was taken from the attendance of one month during the fall semester 1922-23. There were 6,343 pupils in the elementary schools. This included 700 kindergarten children. There were 2,794 pupils in the four

junior high schools, and 1,737 pupils in the senior high school. The enrollment of the Part Time Continuation High School was approximately 900. At the time these figures were taken there were 175 pupils from Berkeley attending the University High School, and there were about 1,900 pupils under 18 years of age attending private and parochial schools.

Table 1, which follows, compares the growth of the school population with the growth in the population of the city since 1908:

TABLE 1.—Comparison of school population with city population, Berkeley, Calif.¹

Years.	City population.	Enrollment in elementary grades 1-8.	Enrollment, seventh grade.	Enrollment, eighth grade.	Enrollment, ninth grade.	Enrollment, high school.
1908-9	36,963	5,327	546	558	538	1,349
1909-10	38,654	5,420	644	519	496	1,340
1910-11	40,434	5,377	595	510	489	1,540
1911-12	42,659	5,478	589	534	441	1,451
1912-13	45,100	6,142	606	677	450	1,639
1913-14	46,000	6,390	746	698	542	1,780
1914-15	47,000	6,096	581	613	606	1,772
1915-16	48,000	6,863	820	683	573	1,408
1916-17	50,000	7,290	817	950	738	1,383
1917-18	52,000	6,965	755	824	656	1,669
1918-19	54,000	7,836	814	970	757	1,797
1919-20	56,000	7,661	910	833	697	2,077
1920-21	58,000	8,382	1,064	1,231	720	2,069
1921-22	60,000	8,654	1,072	1,423	837	2,441

¹ All data herewith given were taken from official records in the office of the board of education, Berkeley, Calif.

The chart shows graphically the percentage of increase of the population in the city and the schools of various types from 1908 to 1922, inclusive.

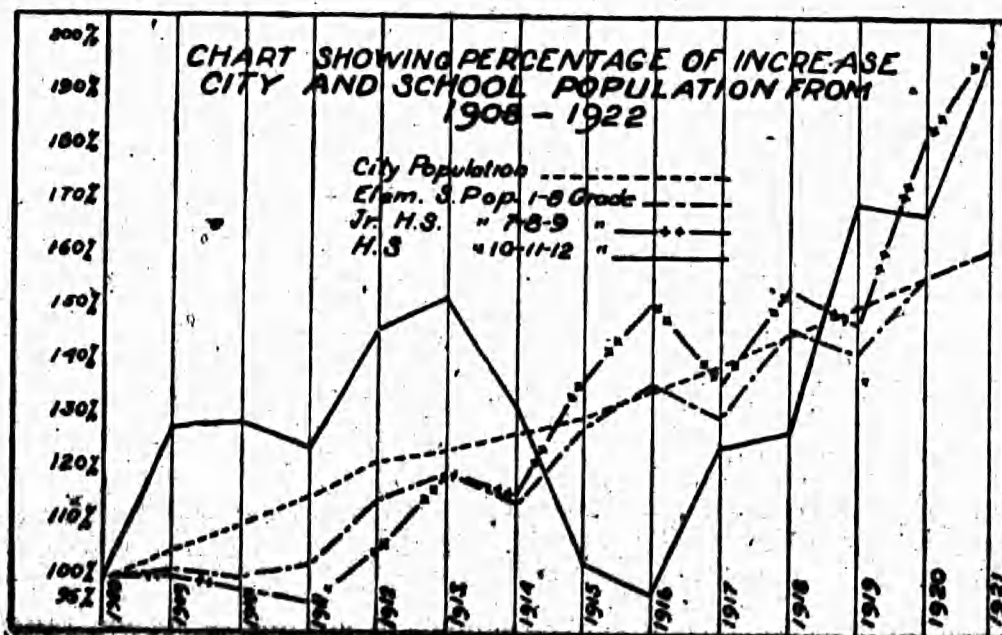


Table 2, which follows, shows the percentage of increase of the city and school population since 1908:

TABLE 2.—Percentage of increase of city and school population since 1908.

Years.	City.	Elementary, 1-8 grades.	Junior high, 7-9 grades.	High, 10-12 grades.
	Per cent. 100	Per cent. 100	Per cent. 100	Per cent. 100
1908-9				
1909-10	1.05	1.02	1.01	1.28
1910-11	1.10	1.01	.98	1.29
1911-12	1.15	1.03	.96	1.24
1912-13	1.22	1.15	1.05	1.46
1913-14	1.24	1.20	1.20	1.52
1914-15	1.27	1.14	1.15	1.32
1915-16	1.30	1.29	1.38	1.03
1916-17	1.35	1.36	1.52	.98
1917-18	1.40	1.30	1.36	1.25
1918-19	1.46	1.47	1.54	1.28
1919-20	1.51	1.43	1.48	1.70
1920-21	1.57	1.57	1.83	1.68
1921-22	1.62	1.62	2.02	1.98

A chart compares the growth of the elementary, junior high school, and senior high school units since 1908.

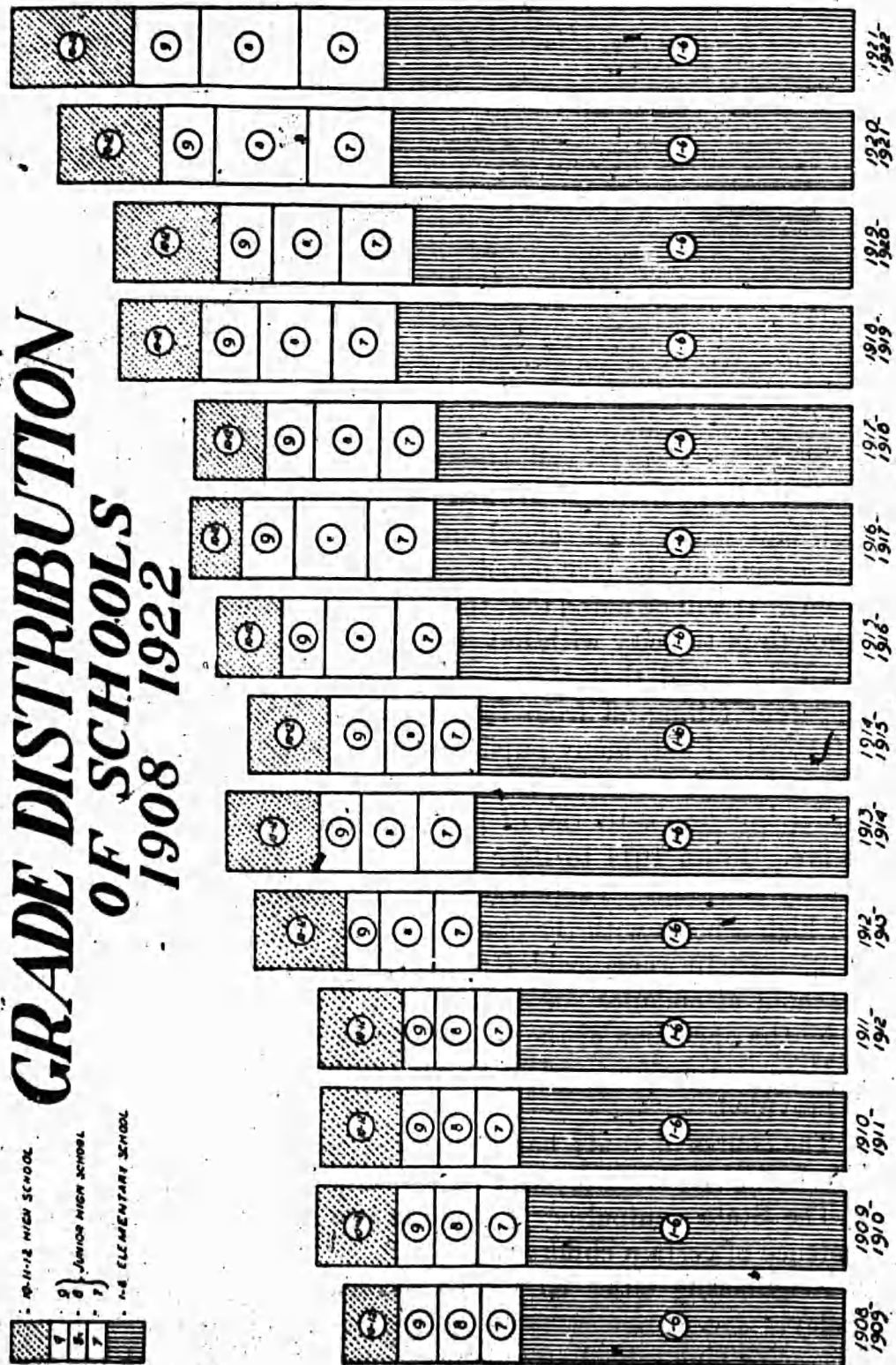
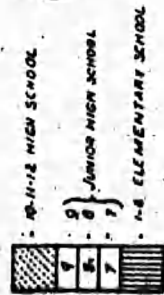
The growth of the city population from 1908 to 1922 has been 62 per cent. It will be noted that the elementary schools have paralleled the growth of the city with but slight variation.

It will be noted that the seventh, eighth, and ninth grades show an apparent falling off from 1909 to 1911. This was due in part to two factors. First, many pupils went to a neighboring city for their vocational work. Second, there was an economic reaction from the excessive building activities of 1906 to 1908, following the San Francisco fire. From 1911 to 1917 the growth of the junior high school was fairly constant. There was a slight decline in attendance in the junior high schools with the opening of the war, due doubtless to the great increase in wages paid for labor. The rapid increase in junior high-school attendance since the World War is explained in part at least by the operation of the following four factors:

1. More commodious and up-to-date buildings and equipment have been provided.
2. The course of study has been freed from obsolete material and has been differentiated to meet the social needs of all groups.
3. The State compulsory education law has operated to force the attendance of certain children.
4. Neighboring cities no longer receive high-school pupils from Berkeley.

The senior high-school attendance dropped seriously with the opening of the World War. This was undoubtedly due in part to the high wages paid for labor. Since the close of the war the phenomenal growth has probably resulted partly from the attendance law and partly from the fact that large numbers of children who returned to the part-time high school were reinterested, so that they reentered the

GRADE DISTRIBUTION OF SCHOOLS 1908 1922



500
Pupils

full-day high school, but the largest factor which has operated to cause the steady growth in attendance probably was the same as in the junior high schools, namely, the broadening of the curricula, providing for vocational work and making possible the satisfaction of the needs of pupils of all ages and types.

While there has been fair success to date in attracting into the schools in large numbers the children of all types who should be in attendance, we are facing the responsibility of caring for many more children in the near future, under the operation of the law compelling children to attend school under certain conditions until 18 years of age. This will require further variations and extensions of the curricula in all schools in order to meet the widely varying needs of all types of pupils.

The junior high school and senior high school will soon be required to meet the responsibility of educating all adolescent youth above 12 or 13 years of age up to 18 years of age. This duty must be adequately provided for, regardless of the pupils' performance in the earlier grades.

III. ESTABLISHMENT OF THE JUNIOR HIGH SCHOOL SYSTEM.

The remarkable development of the Berkeley Junior High School system which has taken place in the last decade has brought with it the opportunity to evaluate those factors which have contributed to its inception and growth, to appraise its distinctive contribution, and to acknowledge its errors or failures. Thus, taking stock of its present worth, we may be prepared to speak more authoritatively, to plan more definitely, in order that our pupils may secure the highest type of training for which they may have the inherent power and the right of accomplishment.

In the autumn of 1909 Superintendent of Schools Frank F. Bunker and the board of education were confronted with the necessity of providing more room for the incoming ninth-year pupils at the Berkeley High School. Financial conditions made it unwise to attempt enlarging the high school. Upon canvassing the situation, room enough to retain the pupils was found in the eight grammar schools, and it was decided that the ninth year should be placed in the four most centrally located.

This necessary mechanical distribution gave the superintendent a much desired opportunity to reorganize the work of the seventh, eighth, and ninth grades upon a basis that had been suggested by President Eliot, of Harvard.

The plan which Mr. Bunker recommended involved a reorganization and a regrouping of the several grades of our schools. Stated briefly, it was this:

To have three groups of schools, one group (the high school proper) comprising the tenth, eleventh, and twelfth years only; the second group, which may be called the

introductory high school group, comprising the seventh, eighth, and ninth years only; and a third group of schools (the elementary schools proper) comprising all children of the first six years. To make it more concrete, the plan proposes, when in full operation, that all the seventh, eighth, and ninth grade children of the entire department be assembled at certain schools which shall be organized for work of this character, that the work of the ninth year be no longer done at the high school proper, but at these centers; and that the other schools of the department comprise grades no higher than the sixth grade, the same to be feeders to the centers. * * * An examination of this plan will convince one, I think, that the division of the grades into three groups is a much more natural one than the arrangement under which we are now working, with a division of the grades into two groups only, one group comprising the eight elementary years and the other group the four upper years.

Statistics show that the masses are held in school no longer than through the fifth grade, and that at the close of the fifth grade they drop out in very large numbers, which means, educationally, that whatever is to be taught to the masses must be given in the first five or six years. By making the break come at the close of the sixth year the tendency will be to hold the children in school at least one year longer.

In the schools comprising this group of the first six years, I would have the course of study uniform for all children and somewhat narrow in its scope. I would see to it that there is emphasized in the work of the first six years those things which the masses must have if they get on at all. I would see to it that, whether or not anything else were gotten, at least the children learn how to read and how to write, how to use their language, both orally and in written form, how to perform with facility and accuracy the simple operations of arithmetic and of accounting, and I would also see to it that in these first six years they get somewhat of a sympathetic knowledge of their city, State, and National Government, and that they also learn the elementary things about sanitation and health conditions which everybody needs to know, not only to protect themselves as individuals but to protect society as well. I would select from the corps for work in these first six years teachers who are particularly adapted to handling children of this early age and to inculcating the content which I have just outlined.

In the "introductory high schools" there would be congregated the seventh, eighth, and ninth years. These years comprise another natural group, inasmuch as children would enter it at the beginning of the period of adolescence, when by nature they naturally crave an opportunity to dip into a wide range of subjects and activities, which is nature's way of insuring a freedom of choice in determining occupation and somewhat of intelligence in the same. I would have certain prescribed subjects for this group, but in addition thereto would permit as many electives as possible, thus making it unnecessary, as at present, for every child in the seventh and eighth grades to take exactly the same work as every other child. In contrast to the work of the first six years, I should hope to see the work of this group relate very closely to life and be as far away as possible from that which is purely academic in education. I should wish much emphasis placed on learning how to study, how to use the library, how to get material from the same with expedition and with judgment. If a child foresees that he wants to take German or Latin in the high school proper, I would wish him to begin these languages when he enters this group and thus have six years of work in the same before he enters college instead of four, according to our present arrangement. I should wish to see the work of this group shaped up to make a more easy transition from the work of the elementary grades to the departmental work of the high school. In line with this I should wish teachers assigned to work in these grades who have a broad culture and wide experience in teaching in the grades.

By an arrangement of this kind it would seem that the work of the high school proper could be made more intensive than it is at the present time, with higher

standards of scholarship and more rigid requirements than at present obtain, and without working any hardship upon the young people who enter the same, for it would seem that, if this work which I have outlined be carefully and efficiently done, the incoming student will have developed a much more serious attitude toward his work than obtains at the present time; will have oriented himself better, so far as his subjects are concerned, and that the break will not be so great or so discouraging as with the plan under which we are now working.

Without proper buildings, grounds, equipment, or textbooks; with courses to be prepared and teachers to be trained for the new type of organization, progress was necessarily slow at first, yet whenever the junior high schools were called to judgment their patrons were practically unanimously in favor of their retention and further development.

In 1913 an effort was made to build community schools which would include the grades 1-9, but fortunately the people did not vote the funds to establish such an organization.

To our former superintendent, M. C. James, is due the credit for the separation of the seventh, eighth, and ninth grades from the elementary schools. In his report of the Berkeley school department in 1914 he reviewed the history of the intermediate schools and pointed out the advantages claimed for the intermediate plan. They were as follows:

(1) That by making the break come at the end of the sixth grade instead of the eighth more pupils would remain a year longer than under the usual arrangement; (2) that a more uniform course of study might be provided for the first six grades, emphasizing simple arithmetic, reading, accounting, elementary civics—subjects which the majority seem to need; (3) that pupils of the seventh grade have reached a period when they should be given a choice among as many electives as possible, subjects varying in content and interest; (4) that by adopting modified high-school methods in the seventh and eighth grades the gap between the grammar and high schools could be bridged; (5) that promotion by subjects would be easier; (6) that the pupil might save time by beginning in the seventh grade subjects in which he might be interested; (7) that the social instincts of the child might be better guided and developed.

These and other reasons induced the board of education to authorize the change in the organization of the schools.

In January, 1910, two "lower high schools" were organized, with a course of study offering Latin, French, German, and extra English to the pupils of the seventh grade. Since that time other subjects have been added to the list of electives, such as extra drawing, bookkeeping, typewriting, printing, and Spanish.

Since the introduction of the system in January, 1910, two more such schools have been established and two other schools have been permitted to retain their seventh and eighth grades.

Notwithstanding the fact that we have not been able to provide separate schools for the pupils of the seventh, eighth, and ninth grades, those in charge of these grades believe that it is just to claim that these advantages may be noted: (1) More pupils remain in school after completing the eighth year; (2) the offering of electives has increased the interest of the pupil; (3) the departmental work has been better organized and administered than it was in the regular grammar course; (4) pupils may be promoted more easily by subjects; (5) the gap between grammar school and high

school is not so wide; (6) the social experience of the pupils gained in their intermediate grades has been beneficial.

The experiment has been tried here under conditions not very favorable to any concerned. The intention was to give pupils of the seventh, eighth, and ninth grades their own buildings and not to mix them with pupils of lower or higher grades. Indeed, to most people the strong argument for this system of schools is the fact that children of this age present peculiar problems which are more readily solved when the pupils are kept apart from younger or older children. The failure to obtain buildings in which the intermediate grades might be housed has led to overcrowding in the grammar-school buildings, and this state of things has been harmful to some degree to all concerned.

This lack of room has made it difficult to attain all that has been claimed for the system, but it is the general opinion that the changes have improved the schools.

Whether a modified course of study for the seventh and eighth grades be adopted, or a six-year grammar course, followed by a six-year high-school course, or the "six-three-three" system, it seems evident that the old division of eight and four grades will not survive. Since there have been some very favorable results obtained under the new system, and since the new school buildings to be erected soon will furnish a chance to conduct the intermediate schools under fairer conditions, it would be best to retain the present organization.

The old grammar-school buildings in which the junior high schools were housed were inadequate. The new buildings were first occupied in 1916 and were largely an experiment. The auditoriums, a new feature, were in every instance too small. Play space was limited, and the crowded conditions of many of the classrooms, both regular and special, still seriously interfered with the work. Following the war a great impetus was given to the junior high school in further differentiation of the curricula to meet the demands of these pupils who were going into vocations. The extension of the shops, the addition of gymnasiums, and other special rooms now make it possible for the four schools to function properly. Further additions in 1920-22 have given Berkeley four of the most up-to-date junior high-school plants in the country, namely, Burbank, Edison, Garfield, and Willard.

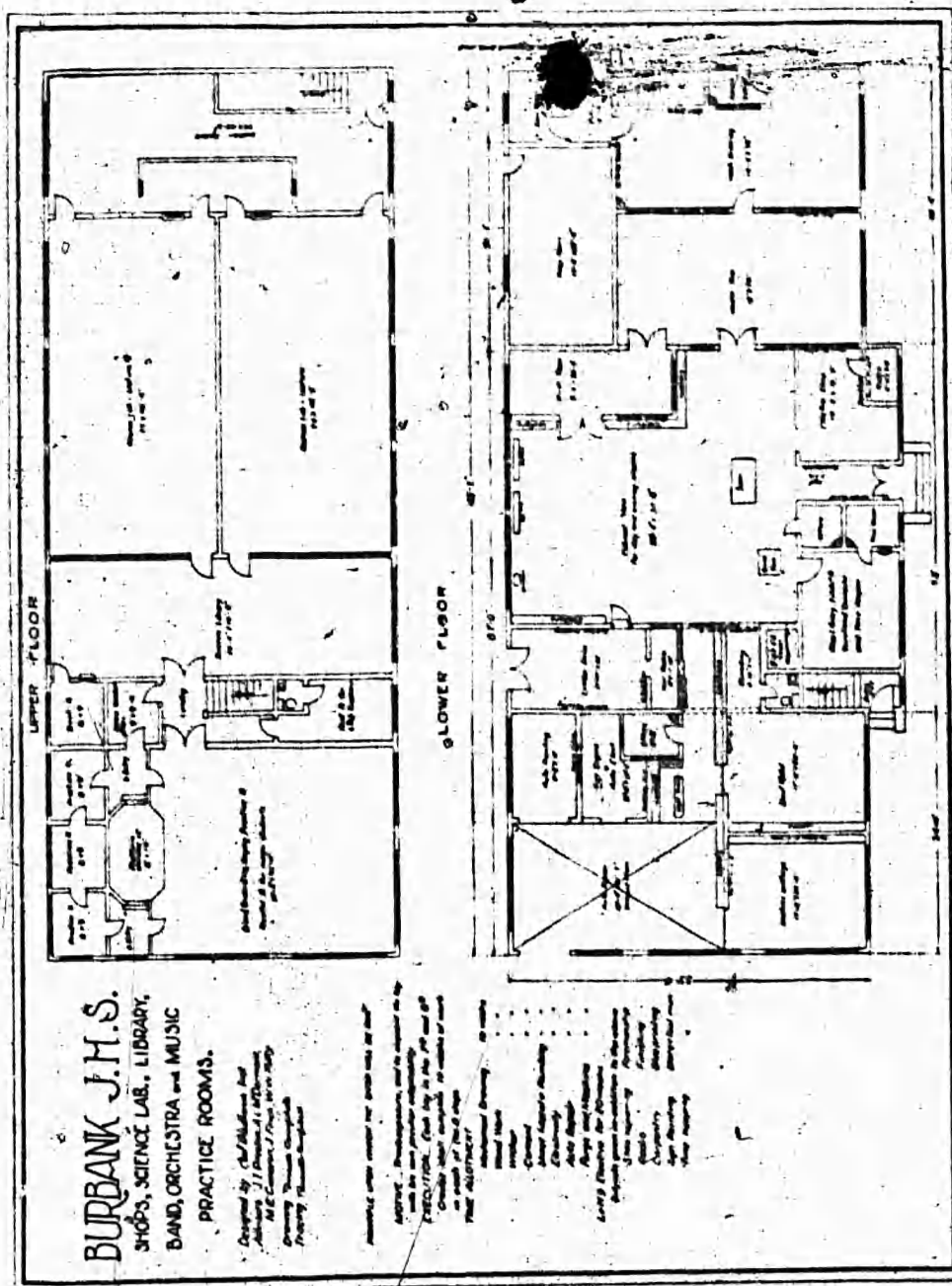
IV. THE OBJECTIVES OF THE JUNIOR HIGH SCHOOL.

The section of this bulletin on the establishment of the junior high schools in Berkeley sets forth certain reasons from the standpoint of expediency for this step. A study of the development of the junior high school system in Berkeley makes it perfectly evident, however, that not mere expediency but the most fundamental objectives have been operative in determining the gradual development of these schools. These fundamental considerations will be briefly indicated.

The objectives of the junior high school when rationally conceived are determined, of course, by society's problems, needs, and purposes, and by society's conception of the function of schools in relation to those problems, needs, and purposes. The degree in which the objec-

tives that may be projected are possible of achievement is determined, of course, by the nature and maturity of junior high school pupils.

The junior high school in Berkeley is merely that section of the public-school system to which is committed the education and training of children during the seventh, eighth, and ninth years of the total



public school course. It is therefore responsible for furthering as much as possible the attainment on the part of each pupil during the years he is in the junior high school of all those objectives which the school system as a whole is expected to achieve.

Since society fixes and controls what schools shall do in the final analysis of the matter, the most satisfactory recent efforts to discuss

the aims of education have stated these aims in social terms. While these statements vary somewhat in their details, yet they agree in the view that the public schools should continually strive to produce those results of all kinds which are most inclusive of the ends which our American citizenry at its best is constantly striving to realize.

Any acceptable statement of educational aims must satisfy two tests. It must state in terms satisfactory and understandable to the lay public what they want done. It must state in terms serviceable and agreeable to the educator what the schools are expected to do.

What, then, are the results, as expressed for the public through educational leaders and other experts, which the public schools should endeavor to secure? In other words, what are the effects in the lives of children which are desirable in the interest of improving society and which society believes should be realized in larger measure through public education than would be possible if public schools were not maintained?

It is not easy to give a clear, simple answer to the questions asked above, because the leaders in education do not agree on the answer, nor do they all use the same terms to express the results education should secure. Further, some of the results secured by good teachers, and desirable in all children, are so intangible that it is very difficult to state them.

What the schools and other more informal means of education should accomplish is clearly indicated by the respects in which every individual must be efficient if he would succeed after he goes from his period of formal training into the actual work of the world. The most commonly accepted statement holds that every person who may be expected to succeed well in meeting all the responsibilities of life must be efficient in physical health, in some occupation, in the use of his leisure time, in his duties as a citizen, and in his moral and religious life.

If we grant that these types of efficiency are essential to that measure of success attainable by any man, the question immediately arises as to what the schools should make the permanent possessions of developing children in order that they may manifest each of these phases of efficiency in their daily living. The answer is that they must be equipped with such knowledge, such habits and skill, and such attitudes as will enable each to be as efficient as possible in health, in vocation, in leisure, in citizenship, and in his moral and religious life.

The foregoing condensed statement of the objectives of education may be briefly and graphically summarized in the following table:

Social efficiency the aim of education.

Phases of efficiency	Psychological outcomes		
	Adequate knowledge	Desirable habits and skill	Proper attitudes
1. Physical or vital	All of these outcomes are essential to each phase of efficiency.		
2. Vocational			
3. Civic			
4. Leisure or avocational			
5. Moral and religious			

It may be worth while to point out that the first and fifth phases of efficiency above indicate qualities in the individual, while the second, third, and fourth phases of efficiency indicate ways of working or functioning. Both physical and moral efficiency contribute to one's success in work, citizenship, and leisure. Some writers, therefore, prefer to indicate physical and moral efficiency as outcomes rather than as separate types of efficiency.

The statement of the aim of education by the Commission on the Reorganization of Secondary Education adds to the phases of efficiency set forth above two others, viz, "worthy home membership" and "command of the fundamental processes." There appears to be no reason for these additions, however, except emphasis. It is evident that "worthy home membership" is definitely included in civic efficiency. Likewise, it is clear that "command of the fundamental processes" is insured if the outcomes of knowledge, habits, and skill, and proper attitudes are adequately established.

A careful examination of the results demanded by the aim of training for social efficiency shows that the essential result emphasized by each of other earlier aims which are still urged by some is adequately included. The aim of equipping each to "earn a living" is definitely provided for under the purpose of training for vocational efficiency. The "knowledge" aim upon which many insist is clearly included in the provision made by the "social efficiency" aim for knowledge as one of the psychological outcomes that is essential. Those who insist that "culture" is the purpose of all education find that the psychological outcomes demanded by the social efficiency aim guarantee the cultivation and refinement of the individual as one result of the educative process. To the extent that "discipline" or "general training" may be achieved through education, we may expect that it will be accomplished through the realization of the rich and varied results proposed by the social efficiency aim. It is also evident that the aim of "building moral character" is fully included in the civic

and moral phases of training for social efficiency. The foregoing brief analysis seems to justify the "social efficiency" aim of education as fully inclusive and adequate. If its requirements are realized as fully as possible in the education of each child, those now in the schools will be well equipped for the duties and responsibilities of life.

V. THE TEACHING STAFF.

When the junior high schools were established a considerable number of the teachers were certificated to teach only in elementary schools of grades 1 to 8, inclusive. Sufficient time was given for those who desired it to secure regular or special secondary certificates, permitting them to teach in the ninth grade. The general policy now is to require the secondary certificate.

Since the organization in 1910-11 more than 250 teachers have served these schools. Of the 25 men and 88 women now in the junior high schools, only 35 have been here since their establishment. This shifting was due in large measure to the low wages paid prior to 1918, the result being an inability to hold many of our best teachers. Since that time, with the qualifications now required and with the same salary schedule as the senior high school, 70 teachers have regular secondary certificates with the equivalent of five years of college work, 31 have special secondary certificates, 2 have the junior high-school certificates which require the equivalent of two years of college work, and 3 have elementary certificates only. All are specialists in at least one subject. Berkeley has developed and is retaining a group of teachers of the highest rank in efficiency and esprit de corps.

In a short time the State teachers' colleges and the universities will be able to meet the demand for teachers trained especially to educate pupils of adolescent age.

Years of experience of junior high-school teachers of Berkeley, November, 1922.

Years of experience.	Number.	Years of experience.	Number.
Less than 1 year.....	0	10 years.....	3
1 year.....	1	11 to 14 years.....	19
2 years.....	7	15 to 19 years.....	16
3 years.....	3	20 years and over.....	31
4 years.....	7		
5 years.....	4	Total.....	111.00
6 years.....	6	Three-fourths.....	6.90
7 years.....	6	Median.....	14.05
8 years.....	5	One-fourth.....	21.30
9 years.....	3		

One-half of all the teachers in the junior high schools of Berkeley have had more than 14.05 years of experience. One-fourth have had more than 21.3 years of experience, and three-fourths have had more than 6.9 years of experience.

Certification of teachers of junior high school of Berkeley, Calif., November, 1922.

Kind of certificate.	Number holding
A. Regular Secondary	70
B. Special Secondary (granted to teachers of special subjects)	31
C. Regular Junior High School	2
D. Special Junior High School (granted to teachers of special subjects)	0
E. Regular Elementary	8
Total	111

Sixty-three per cent of all the teachers in the junior high schools of Berkeley hold regular secondary certificates.

VI. THE CURRICULA.

The many-times-revised curricula now offer opportunity for academic, commercial, and prevocational industrial training. In the old-type grammar school but one course was given, which in many cases did not meet the needs of those sent to school. Elimination was heavy, and comparatively few reached the high school and a negligible number the colleges. Introduction of the so-called special subjects of domestic and manual arts, freehand and mechanical drawing, vocal and instrumental music had a tendency to hold some pupils who were not otherwise interested. Typing and stenography have held their place. Some material formerly taught as geography is now taught in the social science course, while other portions have been absorbed by the general science course.

The World War revealed conditions of illiteracy and lack of physical development so serious that California raised the required school age to 16 and the part-time age to 18. This has put a heavy demand upon the junior high schools for differentiated courses in industry, with adapted courses in the three R's and citizenship. It has compelled a real democracy in education. Each pupil now has the opportunity to do what nature gave him the power to do. The combined curricula of the four Berkeley junior high schools follow, with a detailed statement of the advancement made in each subject since 1910.

COURSES OFFERED IN THE JUNIOR HIGH SCHOOLS, BERKELEY.

SEVENTH GRADE.

ACADEMIC.		COMMERCIAL.		INDUSTRIAL.	
	Periods.		Periods.		Periods.
Arithmetic	5	Arithmetic	5	Arithmetic	5
Arts, home	2	Arts, home	2	Arts, home	5
Arts, industrial	2	Arts, industrial	2	Arts, industrial	5
Drawing, free hand L7	5	Drawing, free hand L7	5	Drawing, free hand L7	5
English	5	English	5	Drawing, mechanical	2
Geography, history, civics	5	Geography, history, civics	5	English, applied	5
Music	2	Music	2	Geography, history, civics	5
Physical education	3-5	Physical education	3-5	Music	2
				Physical education	5

¹ Subjects are given for five 40-minute periods weekly, except physical education, which must be given three times and may be given five times.

OPTIONAL.

Band	2	Arts, home	2	Band	2
Gardening	2-5	English, special	5	Arts, home	10
French	5	French	5	Arts, industrial	5
Latin	5	Latin	5	English, special	5
Orchestra	2	Orchestra	2	Gardening	2-5
Printing	5	Printing	5	Orchestra	2
Science	5	Science	5	Science	5
Spanish	5	Spanish	5	Penmanship	2
Typing	3-5	Typing	3-5	Typing	2
Penmanship	2	Penmanship	2		

PRIVATE.

Piano	1-2	Piano	1-2	Piano	1-2
Violin	1-2	Violin	1-2	Violin	1-2

OPPORTUNITY CLASSES.

The over-age ungraded are coached in work below the seventh grade. Courses are modified to suit their needs and capacities. Subjects in which they are up to grade may be taken with the regular classes.

EIGHTH GRADE.

ACADEMIC.		COMMERCIAL.		INDUSTRIAL.	
	Periods.		Periods.		Periods.
Arithmetic L8	5	Arithmetic L8	5	Arithmetic L8	5
Elementary business arithmetic H8 (high eighth)	5	Elementary business arithmetic H8	5	Elementary business arithmetic H8	5
Arts, home	2	Arts, home	5	Arts, home	10
Arts, industrial	2-5	Arts, industrial	5	Arts, industrial	10
Drawing, free-hand L8	5	Drawing free-hand L8	5	Drawing free-hand L8	5
English	5	English	5	English, applied	5
Geography, history, civics	5	History, geography, civics	5	Geography, history, civics	5
Music	2	Music	2	Music	2
Physical education	3-5	Physical education	3-5	Physical education	3-5

OPTIONAL.

Arts, home	3	Arts, home	5	Band	2
Arts, industrial	3	Arts, industrial	5	Drawing, mechanical H8	5
Band	2	Band	2	English, special	5
Drawing, mechanical H8	5	Drawing, mechanical H8	5	Gardening	2-5
Orchestra	2	English, special	5	Orchestra	2
Penmanship	2	Orchestra	2	Penmanship	2
Science	5	Penmanship	2	Science	5
Stenography H8	5	Science	5	Typing	3-5
Typing	3-5	Stenography H8	5		
		Typing	3-5		

PRIVATE.

Piano	1-2	Piano	1-2	Piano	1-2
Violin	1-2	Violin	1-2	Violin	1-2

When the best interests of a pupil demand it, he should be excused from subjects in which he has no power to accomplish, and be required to succeed in work which he can do.

NINTH GRADE.

ACADEMIC.		COMMERCIAL.		INDUSTRIAL.	
	Periods.		Periods.		Periods.
Algebra	5	Arithmetic, business	5	Arithmetic, applied	5
English	5	Bookkeeping H9	10	Bookkeeping H9	10
Music	2	English, commercial	5	English, applied	5
Physical education	3	Music	2	Arts, home (cooking)	10
		Physical education	3	Arts, industrial (sewing)	10
				Drawing, mechanical	5-10
				Arts, industrial	5-10
				Music	3
				Physical education	2

¹ Subject are given for five 40-minute periods weekly, except physical education, which must be given three times and may be given five times.

OPTIONAL.

Arts, home L9 (low ninth)...	10	Arts, home L9.....	10	Band	2
Arts, home	5	Arts, home H9	5	Civics	5
Arts, industrial.....	5	Arts, industrial.....	5-10	Drawing, free-hand	5
Band.....	2	Band.....	2	English, special	5
Drawing, free-hand	5	Drawing, free-hand	5	Home building L9.....	5
Drawing, mechanical.....	5	Drawing, mechanical.....	5	Music	2
English, special	5	English, special	5	Orchestra	2
French.....	5	French.....	5	Printing.....	5
History, ancient.....	5	History, ancient.....	5	Science.....	5
Home building L9.....	5	Home building.....	5	Typing.....	3-5
Latin.....	5	Latin.....	5		
Orchestra.....	2	Orchestra.....	2		
Printing.....	5	Printing.....	5		
Science.....	5	Science.....	5		
Spanish.....	5	Spanish.....	5		
Stenography.....	5	Stenography.....	5		
Typing.....	3-5	Typing.....	3-5		

PRIVATE.

Piano.....	2	Piano.....	2	Piano.....	2
Violin.....	2	Violin.....	2	Violin.....	2

When the best interests of a pupil demand it, he should be excused from any subject in which he has no power to accomplish, and be required to succeed in work which he can do. Four solids or equivalents are required. A fifth is permitted for strong students.

PHYSICAL EDUCATION.

Of the subjects offered in the junior high school, physical education is first in importance. It has been thought through and demonstrated in all its phases, both in this country and in Europe. The records of physical inefficiency that shocked us under the selective draft will never be repeated. We now give 40 minutes daily to health development, as against 10 minutes in 1910. We are well equipped with gymnasiums with hot and cold showers and lockers; we have access to play fields, and there are good prospects for "the old swimming hole." In suitable attire our boys and girls are now using the big muscle activities in plays and games, designed to develop vigorous, virile, physical young manhood and womanhood. For children who are deformed or who have not reached a normal standard there are special corrective exercises. Laboratory instruction is given in first aid, and problems in hygiene and sanitation are answered in classes or individually as the situation may require. The nutrition classes maintained in conjunction with household science care for those who are underweight by reason of sickness or lack of nourishment, the actual expense except for indigents being borne by the pupil.

MATHEMATICS.

In arithmetic the aim is to teach all pupils to think in mathematical terms, accurately, and with reasonable speed. The content of the course is selected on the basis of utility. Only those topics and the problems growing out of them dealing with the immediate interests of the pupils, or which will be of practical value in the activities which the great majority are to pursue, have any place. More than one-third of the material formerly taught has been discarded as useless, and in its place a course in elementary business procedure has been

substituted. This is followed by a choice of algebra, commercial arithmetic, and bookkeeping. A savings department in connection with one of the local banks acquaints the pupils with many business forms and emphasizes thrift. For certain classes of pupils a general mathematics training is under consideration. There should be a further development of the practical application of mathematics to shop problems, particularly in the ninth year.

ENGLISH.

Our national speech is largely a babel to which all the nations of the earth are still contributing. Foreign born and their children, drawn from more than 30 nations, are daily translating into a meager work-a-day English comparisons of the habits, customs, ideals, trainings, and experiences of their homelands with what they find here.

Communication and transportation lend variety to but do not fix habits of speech. Our national distaste for traditions and social heritages which are not in accord with the genius of our institutions affects our actions, arousing opposition even in our very youth. Our children likewise imitate their elders in an insatiable desire to express the hurry-up of ideas. They seek novelty rather than clarity. They demand freedom to express, whether they have the necessary preparation for an orderly procession of thought or not.

The confused adult meets the strange jumble-language of the newspaper, screen, phonograph, the daily static of the industries, sports, the street, the catch-art phrase of advertising, the ponderous verbiage of ritualistic societies, the low comedy of the stage, and to a lessening degree the refining influences of the church. These and many more contribute to our expressive but oftentimes inelegant vernacular. The elementary school may only hope to supplement the mother and other associates of the child in coping with this problem.

The junior high schools have developed a content and made a serious effort to change teaching methods to meet the conditions indicated.

We may liken the instruction in English given before 1910 to pupils above the sixth grade to the steady pouring of a concrete foundation of grammar, upon which were erected forms of chilled expression which rendered the possessor thereof ridiculously conscious that his school language was that of some one else.

Contrast this with the present, when the great majority of our junior high school pupils have the urge and joy of oral and written expression, when grammar is used only to shape the rapidly growing language tree which is already beginning to bear good fruit because it is rooted in the pupil's own broadening life activities.

The first courses offered in the junior high schools of Berkeley were largely suggested by the highly trained and long-experienced

teachers of the senior high school. Under such leadership there was a great effort made to correlate English and history upon a logical and chronological basis. While many of the time-proven classics found refuge temporarily in these lower schools, the modern psychological attack has had its way here also, and they have since been largely discontinued.

"The aim of education is social efficiency." Our present course has been prepared with a two-fold purpose—the study of English in itself as a means of growth and efficiency, and the correlation of English with other subjects as an aid in accomplishing the desired end of education.

Oral composition consists in the reproduction of current events, stories, simple debates on opportune subjects, book reports, parliamentary practice, and in dramatization of scenes from books read. Pupils are encouraged to select the poems or orations that appeal to them. On special days some one selection is recited by the entire school in concert. The Gettysburg Address is an example of this unity in uplifting American ideals. In connection with the music department, it is quite the custom to coach those with ability in production of standard operas. Correlated with this work are the many plays given for entertainment of classmates or the benefit of the community. Each school has given much time to Shakespeare. The semiannual play evidences the best the school can produce.

The difficulties in dramatization that have been overcome in the various schools are well illustrated by the experiences of the Garfield School:

The production of the first plays was greatly handicapped by lack of the simplest needful devices for successful staging. Now, through the united efforts of the various school departments of art, music, sewing, physical education, manual arts, and English, the play has become a project of real interest to the pupils.

Portraits of famous actors and actresses in the various characters are brought to class, and their costumes are studied by the art, English, and sewing classes.

Sketches are made. These are discussed in classes and then turned over to the girls in sewing, who design the costumes. There is no effort at richness of material, but patrons have freely praised the delightful color harmony and the good lines shown in the costumes made from materials simulating the richer apparel of the theater. To get the desired colors, the class dyes the cloth. Some very interesting effects have been achieved.

In this manner our Shakespearean wardrobe has grown until shoes for the home-spun, slippers for the fairies, boots for Mr. Toby, an ass's heart for Bottom, and even plumed helmets and steel armor for Roman soldiers have been made.

The result of all this is that pupils are freer in taking part in dramatics. Each one in the class takes pride in participating in acting, singing, dancing, sewing, decorating, lighting, stage setting. This experience and training enables them to enjoy and often to be selected for the annual Shakespearean production of the Berkeley High School.

In letters, real or imaginary, original stories or reproduction of stories, descriptions of persons, places, objects, animals, pictures,

visits to factories, public buildings, museums, parks, and other places of interest, the paragraph, and later the outline, is developed.

Short character sketches of real or imaginary persons, short poems or limericks, paraphrases of simple poems, short conversations or dialogues, reports of assembly meetings, especially of the addresses given so frequently upon idealistic or vocational topics, business letters, all these furnish material through which are developed the forms of prose discourse, narration, description, exposition, and argumentation. The school has such a direct relation to the community, State, and Nation, the Red Cross so binds it to the world at large, some motive is always uppermost to induce clarity and conciseness of expression. The recent emphasis upon this work is no doubt due to the highly trained teachers who are primarily interested in the subject of English.

The grammar is taught largely as the need arises in oral and written composition.

The grammar worth teaching is the grammar of use, the grammar which increases the social efficiency of the individual. It is important to remember that an adequate body of language habits and skills should be built up, having their foundation in the past experiences of the individual.

In literature the essential object is so to appeal to the developing sensibilities of early adolescence as to lead to eager and appreciative reading of books of as high an order as is possible for the given individual.

This is for the purpose of both the present and the future development of the character and the formation of the habit of turning to good books for companionship in hours of leisure.

There is a regular course so rich in content that the teacher is in a position to choose different selections for class work, and the individual pupil is permitted to choose from long lists the books he will read or the poems he wishes to remember. A parallel course is given in grades 7 and 8 for those who are not capable of deriving full benefit from the regular course. The teacher may supplement the course with material from the regular course, according to the ability and needs of the individual classes.

In the ninth year the commercial course is intended for those pupils who are planning for a business career, but other groups of pupils may substitute this course or a modification of it for the regular course, if their tastes and abilities indicate that they would derive more benefit from it.

Each school makes good use of magazines and weeklies. In some the study of the *Literary Digest* is offered in the oral English work of the eighth and ninth grades. This work is of prime importance to pupils at this age and is an eye opener on the affairs of the world. No one will deny that the surest road to a safe democracy is enlightenment on affairs of the day.

It will be observed that the courses in English make provision for every type of student in the junior high school. It is thus possible to broaden the training of the brilliant student as well as to require a high standard. Pupils with less capacity have courses modified to afford them opportunity to succeed.

SCIENCE.

Science in the seventh and eighth grades is offered extensively rather than intensively. The pupil becomes familiar with the phenomena of everyday life, especially those of his home. He is taught to observe them and to learn natural laws governing them, through individual projects and through explorations in broader fields by the class under the teacher's directions. In addition to a wide general culture, he is able to apply much that he learns to the life that he is living, he gains a perspective by which he is able to choose the particular field in which he evidences interest and ability, and, finally, he is better prepared for the further study of the branch of science he may select.

The laws governing air, water, and heat, and their application to the life of the individual, why he must breathe pure air, its relation to health, some of the defenses of science against disease, the necessity for the use of water, the necessary provision of it, the way in which nature supplies it, its action in the making and removal of the soil—all these must be understood if the citizen is to live intelligently.

The need of food by plants and animals, the foods best adapted for the growth and repair of the body, the organs of digestion, and the circulation of the blood are taught by the laboratory process. The proper preparation of clean wholesome food is dwelt upon, and the responsibility of those civic officials who guard the food supply is idealized.

Man's control over the forces of nature introduces him to other worlds than ours.

The building and heating of our homes furnishes a desirable motivation. Clothing and its care open many scientific processes.

The mechanical advantages of the machines about him, communication, and the inventions that have made it instantaneous, are studied. The importance of transportation, in enabling man to supply his needs, and the underlying principles that have made cooperation possible between all the races of man, are shown him.

The origin and the betterment of life are observed through the seed and the egg.

Throughout the course there is a close correlation in health studies with the physical education department and in the construction of machines for power or the application of electricity and gas to the manual arts. The girls' instruction in chemistry functions in the testing of clothing which is done in the household arts classes.

The dearth of properly trained science teachers and the lack of properly equipped laboratories have made progress in this subject necessarily slow. For many of the junior high-school pupils, a full three-year course should be offered. The goal should be a further study of community, State, and national problems in the light of everyday science, especially the biological phase.

When the junior high schools fully meet their obligation in this suggested general science field the student will go to the senior high school able to do intensive work of a high character in the particular branch of the subject which compels his interest.

HISTORY.

When the intermediate schools were first established an effort was made to develop a course in Pacific coast history and world problems. This was meant to include community civics. It was discontinued after several years' trial because much of the material in history was treated too extensively. Sufficient preparation had not been given to the revision of community hygiene and civics. There was more demand for a general course in ancient and medieval history. With the exception of the Pacific coast history this course has been absorbed by the eighth-grade courses in civics and science.

The chief aim of the courses now given in the United States history, civics, ancient and medieval history is to so prepare the student that he can take his place in all his business, social, and civic contacts as an intelligent, judicious, honest, active American citizen. This aim bears with it the objectives necessary to remember during the processes of his development, so that each pupil may realize the influence of the early periods upon the later periods, recognize the depth which the present owes to the past, respect the efforts of mankind, know the forces with which he is surrounded, and appreciate the deeds of the noble men and women who have begun the work he must carry on.

As a measurement of good citizenship it is used to develop judgment and proportion in attacking present-day problems by the laboratory method through current events. City and county offices are visited, and government is seen in actual operation. Pupils are taught that they are citizens now, and they are led to the daily performance of their duties, as well as trained in the enjoyment and exercise of the rights and privileges of an American citizen. It is the habit of meeting his obligations as they occur that develops the right-minded, active citizen. Student activities lend themselves as agencies of power which may be intrusted to the pupils. By means of these they are able to find themselves.

LANGUAGES.

Latin, French, and Spanish are elective in the seventh, eighth, and ninth grades. If taken the full time, two units of credit are given toward graduation from high school.

The younger pupils are not so self-conscious; they acquire foreign pronunciations more rapidly; they have more freedom in conversation and other oral work; forms and vocabularies are mastered more thoroughly; the work is made more interesting by the introduction of matches, games, stories, plays, toys, dramatization, dialogues, and songs. A foundation is laid for better language work in the senior high school.

Over 50 per cent of the junior high school pupils get credit in some language. No doubt the many students in Berkeley who plan to enter the professions through college have a great advantage in being able to carry a foreign language for the six years of the junior and senior high schools.

TYPING.

Typing is taught in three schools. It is one of the "finding" courses. Those who complete this course are intending to make use of it as students or to further prepare themselves as secretaries or typists in a business capacity. This work has been well organized in the past three years, and very good results are being obtained.

The school paper is stenciled and duplicated in the Burbank School. Mechanical work, such as typing, may well be done in the junior high school, leaving to the senior high school training in the broadening subjects of commercial law, economics, and citizenship.

STENOGRAPHY.

Stenography is also offered in the eighth and ninth grades as a "finding course." Those with average ability succeed in doing about half the work required to become a competent stenographer; those with less ability usually discontinue this subject. Here, as in typing, an earlier opportunity to do this work permits the student to advance to more extensive and broader courses during his later school life and thus better to prepare himself for actual business.

ART.

Art is designed to develop in the pupil the capacity to recognize, the skill to express, and the desire to select beautiful surroundings.

In order that future generations may have higher ideals in the control of their environment, it is necessary to inculcate in the children of to-day more desire for and enjoyment of the beautiful in nature, in fine art, and in the industries.

To train the children to be sensitive to the harmonies that distinguish the beautiful from the ugly or commonplace in their surroundings, it is necessary to so organize our school work that children may have opportunities of expressing art in all the regular activities in which art should function.

Dr. Frederick Bonser says:

If we expect to develop an appreciation of good design in clothing, we must have projects in design as applied to clothing; for appreciation of design in homes, projects in design as applied to homes; for appreciation in china and other pottery,

projects in design as applied to china and other pottery. We can not teach abstract principles of design to children and expect them to make application of these principles for themselves to the various constructions in which they are required.

In the junior high school particularly some pupils should be given greater opportunity to satisfy their craving for art expression and to develop latent talent; some should have units of art work with occupational significance—all should have art of some type for appreciation; and courses should be so planned that work links up with every student's interest.

In Berkeley, we are looking forward to the above plan. Already a good beginning has been made. In all the junior high schools some phases of art crafts, such as basketry, bookbinding, and pottery, are carried on in a limited way.

Within the next few years we hope to be able to offer to smaller groups than we now have units of work that more nearly meet the various interests of students. Some of the courses now being considered for those interested in the fine arts are special drawing classes, modeling, art appreciation.

Courses being planned for those who wish particularly to have work that will give them an introduction to the part art should play in the industries are camera art, pottery and art cement, bookmaking and repairing, art for the printer, poster or advertising, designing and weaving, window trimming.

MUSIC.

The course in music recognizes that no education is complete without music. The large number of people engaged in the profession of music, the vast numbers attendant upon musical occasions, and the ever-increasing sums of money spent annually in the United States evidence a universal desire for the knowledge of it.

By nature music makes a demand upon and develops the physical, mental, and spiritual attributes of man, and establishes a balance between them.

It has possibilities of stimulating culture and refinement in the individual, diligence and active interest in the life of the school and community.

It has power to stimulate and to promote social qualities above any other subject of the school curriculum.

Music is all-persuasive and can be made a great power in the development of proper school discipline and necessary school unity.

The inclusion of music in a curriculum on an equality with other school subjects does not overcrowd the curriculum, but is the means of putting life and spirit into other school subjects. It tends to enrich every phase of school life; it promotes happiness and creates a desire

to find its complement in other school subjects; it gives new life to old things and makes real and near at hand those things that were unknown and far-away.

Education is not merely an accumulation of knowledge, not merely the training of a well-disciplined mind, but is a training in the appreciation and understanding of things worth while.

Many children have not only been awakened to greater activity in other school subjects through music, but they have been kept in school longer and have been more regular in attendance.

The union of school with life outside is the millenium sought by all prominent educators to-day. Music is one of the strongest "tie-ups" with the home and outside life.

As many children are forced to drop out of school at the end of this cycle, a knowledge of the best music must be given; the special needs and aptitudes of each child must be recognized and considered.

Every pupil in this cycle is enrolled in the vocal work, and many are enrolled in some phase of the instrumental work. As there are three classes of artists in music—the creator, the interpreter, and the listener—this course aims to educate each to his highest development.

In the vocal work care is given the voice in the singing of hymns, folk songs, ballads, art songs, patriotic and national songs, selections from opera and oratoric singing in mass, by class, group, or individual.

In instrumental work opportunity is given to play in bands, orchestras, smaller ensembles, and on single instrument, while free instruction may be had on brasses and reeds, and for a small fee on strings and piano.

By the use of pianos, piano players, church organs, victrolas, orchestras, bands, solo instruments, the school's own efforts, meeting artists, young people's concerts (including the San Francisco Symphony), outside programs, pupils constantly have an opportunity to hear good music.

Theory is given as a practical application of the problems found in all school music—vocal and instrumental, to interpret what is written by others; to analyze rhythmic, melodic, and harmonic content; to put into composition one's own ideas; and to intensify one's appreciation.

Sight singing is experienced. Even though sight singing is not the end or aim of music education, a reasonable capacity should be expected. Pupils should be able to sing in one, two, three, or four simple voice music with words or syllables (as a unit of measurement) or without accompaniment, and with a superior quality of interest, joy, and interpretation. This is secured not by a dry process of insisting upon exact detail involving much repetition, but by a greater amount of new material involving the same problems.

Incidental history is followed to show that music has been an expression of all peoples, of all times, of all climes. An investigation is made into the music of the community.

A talented pupil who wishes to continue his study under his private teacher outside of school in the applied music may do so and receive credit for it. Thus the press of the curriculum is relieved, and he may spend more time in practice and less time in study on unnecessary subjects.

It would be a sad thing that, after all, the pupils could not give service to their community; therefore cooperation with municipal and community interest is heartily entered into by all.

Summing up the course, some phase of music is presented to the limited child, enabling him to unfold; to the average child, enabling him to enrich his experience; to the talented child, enabling him to recognize and enlarge his talents.

HOME ECONOMICS

Home economics bear such a close relationship to the home and the community that the scope of the work has been extended to cover all the requirements of the average American home and to meet many community problems. Cooking, home nursing, household management, laundering, care of children, sewing, rug and scarf weaving, prevocational dressmaking, and millinery are subjects taught in the home economics department, and the work reaches a high and economical standard. The costumes for many school plays are designed and made in the department. Some additional training may be acquired in the lunch room of one of the schools in quantity cooking, while in another quantity cooking experience is given by having groups of four each day prepare the teachers' lunch during the regular cooking period.

Home economics in schools can never teach a girl all she will need to know as an administrator of her own home, but it should and can establish a respect for home making, keener interest in the home, right health habits, habits of neatness, a good degree of skill in ordinary household operations, a spirit of helpfulness, and ideals and standards of a healthful and satisfactory family life.

Through social-service projects the Berkeley Welfare Society and the Junior Red Cross are recipients annually of many garments made by the household arts pupils, while the household science furnishes large quantities of jam, jellies, and other delicacies.

INDUSTRIAL ARTS.

The former type of manual training for boys in grammar schools consisted almost exclusively of woodwork. In the Berkeley junior high school shops the industrial course now includes opportunities for prevocational training in machine shop, electric shop, radio,

cabinetmaking, auto operation and repair, sheet-metal work, pipe-fitting, printing, cement work, shoe repair, elementary plumbing, home and school repair service, drafting, blue printing, designing, wicker furniture, bicycle repair, and painting. The Junior Red Cross and other charity organizations receive thousands of toys from this department each year for free distribution to poor children. The vocational counselor supplements these activities by developing charts which show facts as to the permanency of various vocations, steadiness of employment, salaries paid, number employed, and opportunities to be had.

This type of "prevocational industrial" work seems to justify itself and is receiving more time in the junior high-school program. Many schools are giving an hour or more each day for boys to secure these exposure experiences. If this plan succeeds in reducing the number of "misfits" and materially aids boys in earlier and wiser choice of vocations and training courses, it will be one of the significant contributions of the junior high-school organization to the educational program.

The junior high schools were organized in order to broaden the course of study offered to pupils in the seventh and eighth grades and to bridge over the gap that existed between the eighth and ninth grades. Its purpose was to hold all pupils in school until the senior high-school course would be completed by giving the younger pupils a peep into such fields as the modern languages and science, which had formerly been reserved for the senior high school alone.

The results were encouraging, but there seemed a need for something more; many pupils still failed to complete the senior high-school courses; the school was still unable to prevent a large number from drifting into the "blind alley" method of finding a place in the world of work and industry.

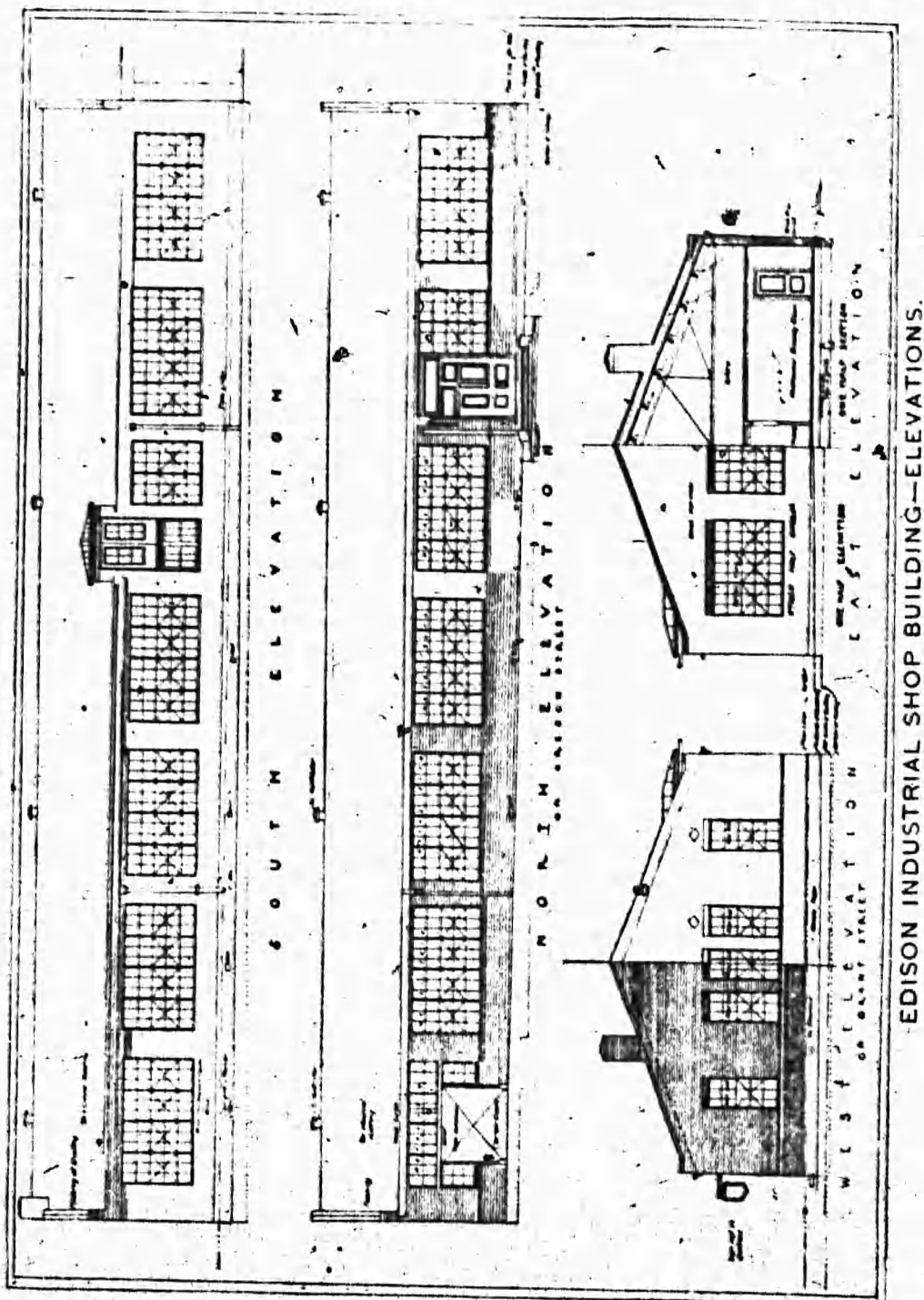
The Edison Junior High School made a study of the facts concerning the number of its pupils who do not complete the full high-school course or who do not go to the university. The data gathered showed that only 16 per cent of the Edison pupils continued on to the university; that 84 per cent went no further than the senior high school, and many failed to complete that course.

Other data covering all of Berkeley showed that, out of 910 pupils entering the low seventh grade, only 287 completed the twelfth grade. The figures of those completing the various grades were as follows:

Seventh grade.....	910	Tenth grade.....	678
Eighth grade.....	833	Eleventh grade.....	404
Ninth grade.....	697	Twelfth grade.....	287

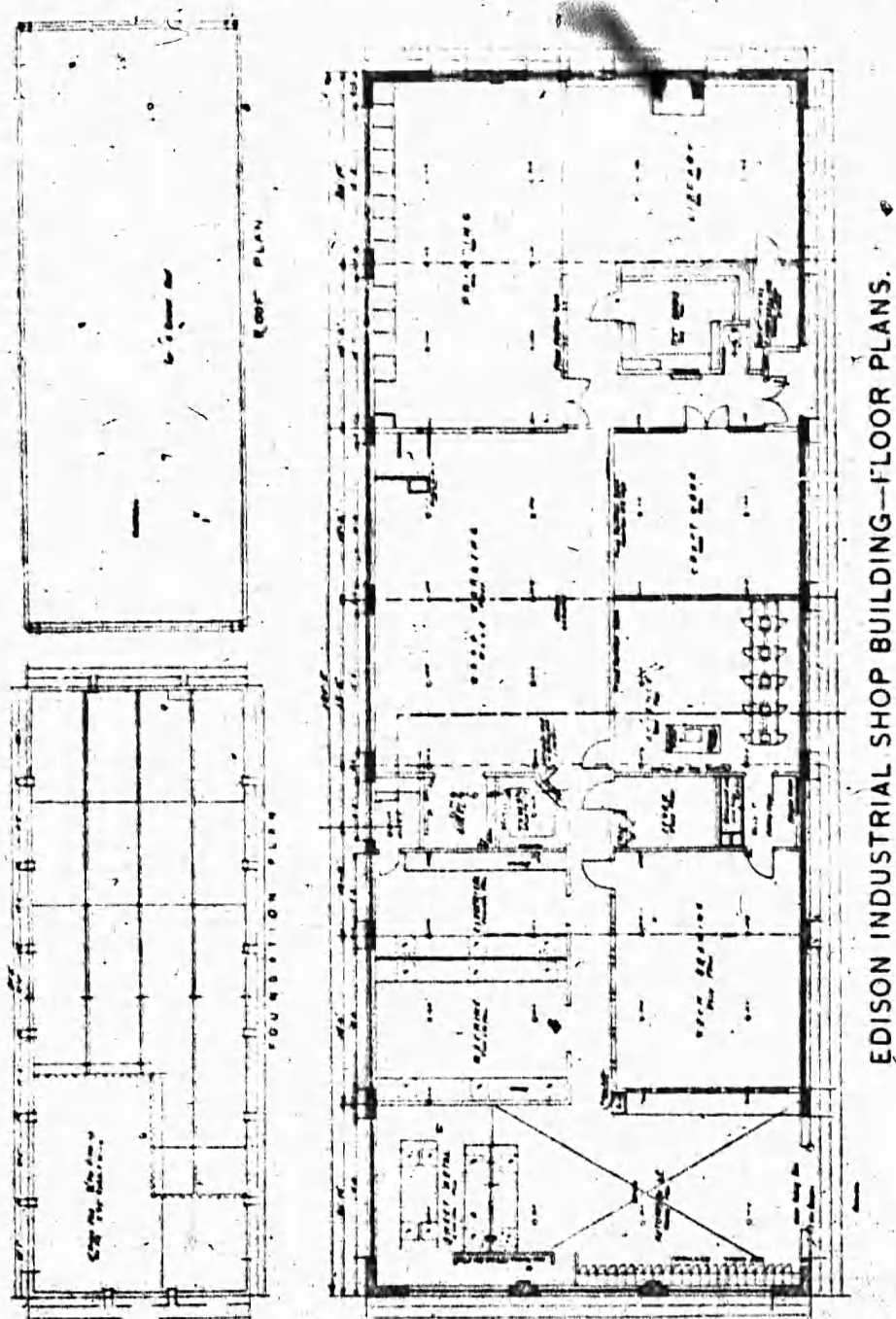
Such studies conducted by Mr. H. H. Glessner, principal of the Edison Junior High School; Mr. J. T. Preston, principal of the Burbank Junior High School; and Mr. W. W. Patty, director of voca-

tional education, not only convinced them of an unusual need for special emphasis on prevocational work at the Edison and Burbank Schools but also enabled them to so present these needs to Supt. H. B. Wilson and the board of education that new prevocational industrial buildings were erected at both these schools. Extension in the



number of kinds of shopwork offered have also been made at the Garfield and Willard Junior High Schools. (Somewhat similar provisions are made for prevocational work in home economics, agriculture, commercial subjects, music, art, and preprofessional subjects.)

The general aims and purposes of these shops is to give the boy a controlled set of experiences in a selected group of occupations in order that, (1) he may have a basis of determining whether or not he wishes to pursue further a more intensive training in any one of the occupations experienced; and (2) he may from first-hand experience gain



in simple terms an appreciative understanding of the problems involved in the work of the world as represented by the selected group.

The prevocational industrial work being developed in the Berkeley junior high schools may be well illustrated by a brief description of the work at the Edison School.

The length of the school year is 40 weeks, divided into a fall semester of 19 weeks and a spring semester of 21 weeks. The length of a period of instruction is 40 minutes. Shopwork is compulsory for all boys in the seventh and eighth grades. Ninth year shopwork is elective. The number of shops is 10. The average number of weeks for each shop course is 10.

The shop building at Edison Junior High School was constructed as a separate unit to the school, at a cost of \$20,000. It is a brick building, of the factory type. The various shops—see the floor plan as shown in cut—are separated from each other by low partitions approximately 5 feet high. This enables the boys to observe the work of the various departments and to feel free to consult with one another concerning the project in question. It also aids the instructor, who supervises three different shops, in keeping closer tab on the work for which he is directly responsible. The printing, general science, and mechanical drawing departments, however, are separated from the other shops by glass partitions, owing to the nature of work done in these departments.

The number of pupils assigned to any one shop at a time is limited to 10. Each group has its own student foreman, carefully selected for his adaptability, and especially trained for the particular shop to which he has been assigned.

The equipment for the entire shop plant is valued at approximately \$14,000. Additional equipment will be required from time to time, but it is the plan of the school to construct much of this in the shops, thereby training the boys as useful, practical, and independent workers.

The teaching force in the Edison Prevocational Shop Building includes a librarian and vocational guide; a science teacher; a teacher of mechanical drawing, woodwork, and electricity; a teacher of auto mechanics, machine shop, plumbing, and sheet metal; and a teacher of printing and bookbinding.

The teacher of academic subjects and the vocational counselor and librarian are combined. As vocational guide, the first duty of the counselor is to make a case study of the individual at hand. In this study is included his tentative vocational choice, his parents' ambitions for him, his interests in and out of school, his abilities, his intelligence data, and his general school standing.

As librarian the counselor is responsible for the purchase and maintenance of the shop library. She cooperates with the shop instructors. She learns what each is attempting to accomplish in his department and furnishes reading material that will meet his needs. The counselor must also keep a record of the reading done by each pupil, and, when the opportunity offers, suggest books in the line of work in which he seems most interested. The interest

which a pupil evidences along certain lines in his library reading is made a part of his case study.

The grade assignment and time allotment of industrial shop courses follow:

	Weeks.
Low seventh grade—	
Mechanical drawing, sketching, blue-print reading	10
Printing and bookbinding	10
High seventh grade—	
Electricity and radio	10
Woodworking	10
Low eighth grade—	
Plumbing and sheet metal	10
Machine shop	10
High eighth grade—	
Auto mechanics	20
Ninth grade—	
In the ninth grade the pupil may elect mechanical drawing, printing, auto repair, cabinet making, or electricity, including radio.	

The method used in each subject presentation is the same. The pupil is given an "exposure" to a controlled and selected set of experiences representative of the industry in question. He works out projects. He listens to lectures. He makes trips to near-by factories, shops, and stores. He acquires a viewpoint of the industry he is studying. Since the primary object of the shop is not training for a vocation, the teaching of those processes that lead to the acquirement of skill is not stressed. However, an effort is made to keep the work at as high a level of skill as possible.

VII. THE BURBANK JUNIOR HIGH SCHOOL.

The San Pablo Avenue School, since renamed the Franklin, was the first grammar school in Berkeley. Its traditions for more than 40 years were those of the usual ungraded American country school. Later it has been serving the needs of a cosmopolitan community, where 60 per cent of the pupils are foreign born or children of the foreign born. With 30 or more nationalities represented, a great proportion of whom are illiterate, few of the students made any serious attempt to complete the grammar school, and only occasionally did one enter the high school.

The careful reorganization, grading, and departmentalization of the school under Principal George D. Kierulff in 1905 set new standards of accomplishment, but the strictly academic character of the course required did not hold the majority of the pupils beyond the fifth grade, especially the boys.

When James T. Preston took charge in 1906, the school began the development of a distinctively social atmosphere. Out of the great human emotional appeals of art, drama, debates, music, play, and

recreation there grew a conscious solidarity of school and community interests. With a strong faculty whose tenure was certain, the standards of scholarship were gradually raised, and the school for the first time competed with its fellow grammar schools in athletics and debates, and united with them in vocal and instrumental music, as well as made direct contribution to civic advancement. The influx of pupils caused by the great disaster in San Francisco doubled the enrollment.

The banishment of saloons resulted in the material betterment of many families, and the consequent regular attendance of many additional children. Domestic and manual arts introduced under Supt. S. D. Waterman in 1907 interested and kept many "hand-thinking" children in school. The rewriting of the various courses under Supt. F. F. Bunker in 1908 brought in new material that appealed to some, but no radical improvement occurred until the establishment of the intermediate system in August, 1911. Then the extension of domestic and manual arts and the addition of commercial and other subjects held the majority of the pupils through the ninth year, cheerfully conscious of a worthwhile educational progress.

From 1911 to 1916 the Franklin School of nine grades, in common with the other intermediate schools, struggled against heavy odds. The plant was unsuited for anything except academic work; classrooms were overcrowded; it was impossible to separate the younger pupils from the older group; there was small space and no equipment for physical education; the school was charting its way in some new and untried courses; there were at times violent reactions against the whole intermediate experiment; but in the main the school justified the new departure from tradition through its product, the alumni.

When the school moved to its new building on University Avenue, at Curtis Street, in March, 1916, it became known as the Burbank Junior High School. With a beautiful site of 3 acres, a one-story building of eight classrooms and an assembly hall, besides special domestic and manual arts buildings—separated from the six elementary grades—it was able at once to properly function as a junior high school. With the exception of the war years 1917 and 1918, there has been an increasing number of students who plan definitely for higher training.

Three courses are offered: The academic, leading to college and the professions; the commercial, which begins the preparation for business life; and the industrial, which lays the necessary foundation for the trades. In the latter, half of the time of the pupil is spent in the domestic or manual arts. A two-story building of a 50 by 130 feet factory type has just been completed, the lower floor of which is being used exclusively for prevocational shopwork. The upper floor will furnish adequate space for extensive general science classrooms,

laboratories, with the requisite equipment, a connecting library, and museum.

All boys and girls in the elementary schools of Berkeley, regardless of academic preparation, who have reached the age of 13 years, may be admitted to the opportunity class at Burbank. Retardation may have been due to sickness, travel, truancy, waywardness, foreign birth, or slowness. These pupils are admitted to the regular classes in those subjects in which they have the power to reach the grade. They are given individual coaching below the seventh grade. More than 70 per cent qualify in one or two terms to do regular grade work. The slow pupils are given the special types of work which it is found they can do successfully.

By means of past records and mental tests, all pupils upon entrance are classified according to ability. Those who have passed high mental tests, have records of successful achievement, and are in good health, are permitted with their parents' consent to do the four terms of the seventh and eighth grades in three terms, thus saving a half year. In the ninth year particularly strong students may take a subject in addition to the four solids required. These bright students are busy, they are acquiring excellent habits of study, are setting high standards for our student body, and are among the first in the senior high school. Since 1918 these students have saved the department more than \$8,000 by requiring less teaching time. This makes it possible to place those who need more direction and assistance in smaller groups, thus greatly reducing retardation.

The community athletic and social clubs, lodges, and civic organizations make free use of the assembly hall for social and educational purposes. The gymnasium is used five nights weekly.

During the past year six plays, six addresses or lectures, and two operas were given. Thirty-five dances were held under the authority of a supervisor, who is directed by the principal. Wholesome amusement and entertainment are therefore provided for the youth in the school's own neighborhood.

VIII. THE EDISON JUNIOR HIGH SCHOOL.

The Washington School was established in 1907 under the leadership of Mr. John A. Imrie. It continued as a regular grammar school for three years, doing departmental work in the sixth, seventh, and eighth grades. In 1910 it was reorganized as an elementary-intermediate school, under the principalship of Mr. G. W. Monroe. The plant was small and poorly adapted, from an administrative standpoint, to such an organization. The intermediate department was at once placed upon a regular high-school basis. This type of

organization, coupled with the elementary grades in the same building, was not a pronounced success.

In 1912 the plant was slightly remodeled so that both groups could be more conveniently accommodated without a serious handicap to either group. At this time Mr. H. H. Glessner became principal of the school. The course of study in the Washington School was the same as that of the McKinley and Whittier Schools, although the class of pupils represented an entirely different community. Approximately 85 per cent of them represented the working class, and not more than 20 per cent ever expected to reach the university. This being the case, it was decided to introduce Spanish at the beginning of the seventh year but not to offer Latin until the ninth year. It was also decided that the commercial course should be added to the curriculum.

In the spring of 1916 the intermediate grades — seventh, eighth, and ninth — moved into their new building known as the Edison Junior High School. The new building was a 14-room brick structure planned along high-school lines to fit the particular type of locality to be served. With an attendance of 340 in 1916, the school has grown steadily until at present the enrollment is 700. The school plant has been enlarged by the addition of a double gymnasium, two classrooms, and a prevocational shop building. The gymnasium is one of the finest and most complete of its kind about the bay. Not only is it in use throughout the entire school day, but five nights during the week regular classes are held for the adult population.

The students have their own student-body organization, which is controlled by an executive board composed of the student-body president, the student-body secretary, and the class presidents. They hold regular monthly meetings, plan their own programs, and assume certain responsibilities in the discipline of the school. The school publishes a magazine each term called the Mazda, and a monthly paper called the Spotlight. These publications are edited and financed by the students of the school, under the direction of a member of the faculty. The art department directs the sketching, the science department the photographic work, while the printing is done in the school print shop by the boys of that department.

The English and the music department each term stage some performance indicative of the work of these departments. The money realized from these performances is applied toward some needed improvements or school activity. Two years ago \$1,800 was spent for musical instruments for the school band. Last year an art committee was appointed to plan a complete program for the adornment of the school. Their program calls for an outlay of \$5,000, which sum the committee proposes to raise within the next two years. The school supports a band of 28 pieces and provides the members with

both instruments and uniforms. There are two orchestras in the school—Senior and Junior, the Senior with 36 pieces and the Junior with 20 pieces.

The Edison Junior High School has developed two home-making courses in connection with its art department, which are of particular interest to girls, one being costume design and the other interior decorating.

The costume-design course covers, first of all, lessons which will awaken appreciation of line, spacing, balance, value, and color harmony. The effect which line, contrast of dark and light, color, and the placing of design have upon different types of figures is carefully studied, and problems are given to determine just what form of neck line, shoulder line, or waist line is suitable to each type.

The students are asked to select commercial patterns for many figures and to overcome by the proper use of line any defects which poorly proportioned models may have.

Costumes are designed for special occasions, such as school frocks of cotton material, street costumes of wool, and evening frocks of silk or light weight fabrics.

This course is given to train the girl to select or design her clothing appropriately and wisely. By applying her knowledge of line value and color harmony, she should be able to dress becomingly even in simple and inexpensive materials.

The course in interior decoration opens with class discussion of local building conditions, suitable house sites, types of architecture found in the vicinity, and conditions to be sought or avoided when building.

After reviewing general design principles, the plans and elevations of a small five or six room house are drawn to scale and blue printed. Balance and proportions are considered not only when designing the exterior but thoughtfully applied to interior wall spaces as well. A small model of the home in plastersine gives the girl an excellent idea of how it will appear when built.

Then comes the task of furnishing, and this always proves a fascinating and delightful one. Wall and floor coverings are decided upon, as well as the color and materials to be used for drapes and furniture coverings; and after trips to local furniture stores and talks on period styles, the furniture in the house is selected.

The student also has the opportunity of designing crafts work, such as runners, book ends, and lamp shades which could be used in her home. Always the home is kept in mind as a unit, rather than as a number of separate rooms, and every effort is made to keep it simple and harmonious. Girls taking this course should as a result have a higher conception of what a home may be, as well as the ability to furnish their homes harmoniously and economically.

The Edison Community Council meets at the school one evening each month throughout the year. Its membership totals about 400, composed of parents and their friends. The council has taken as its work for the year the establishment of a library for the school; they hope to establish a branch of the public library in the school in the course of the year.

IX. THE GARFIELD JUNIOR HIGH SCHOOL.

The Whittier Grammar School, instituted in 1892, became an intermediate school in August, 1910, by retaining the low ninth grade. Even more than the other intermediate schools of Berkeley, this school lacked adequate accommodations.

For the five and one-half years during which the school was housed in the Whittier Building the pupils of the seventh and eighth grades were limited to the selection of Latin, French, or German as an option. Due to the influence of the first principal, Mr. S. D. Waterman, a Latin scholar and teacher of unusual ability, the Latin classes have always enrolled a larger percentage of pupils than those in any of the other schools.

In the ninth year, in addition to the three languages mentioned, a pupil might select algebra, history, household or manual arts. This curriculum continued in force until the seventh, eighth, and ninth grades moved to their new quarters on Rose Street in January, 1916, and were organized as the Garfield School. D. L. Hennessy, vice principal of the Whittier School, became principal of the Garfield and has since continued in that position.

It had been estimated that accommodations for 280 pupils, with an assembly room and four special classrooms, would be ample in the new building; but on the first morning of the new term 396 pupils enrolled. The number increased rapidly, and provision had to be made for the overflow by use of various annexes to the plant. These included in the last year of its occupancy, 1921, four portable classrooms, an unused grocery store, one room in a church, three rooms in a private dwelling, and the lobby of a former hotel.

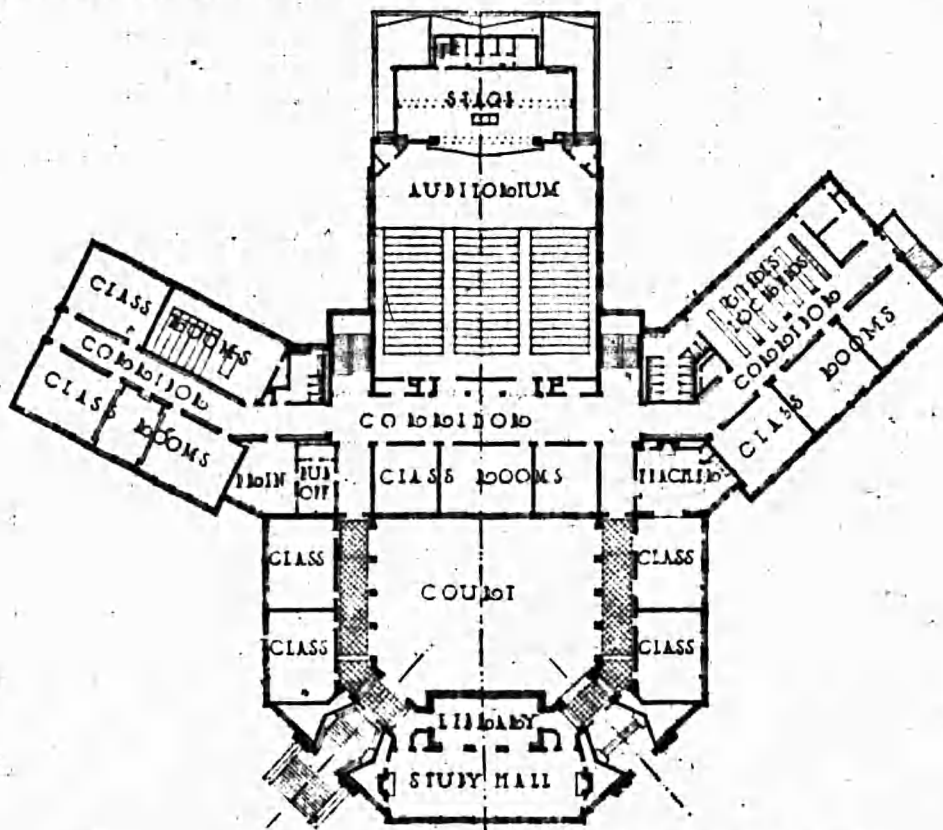
Despite these handicaps, the school maintained a high degree of scholarship, although development in the domestic and manual arts department was seriously hampered and physical education was given at a great disadvantage. It was not until the opening of the new Garfield School, in August, 1921, that adequate facilities were provided so that the school could fully function as a junior high school.

Upon an ideal site of 19 acres a two-story building with 40 regular and special classrooms now houses the 825 students. The plans call for a spacious auditorium, a gymnasium, a detached manual arts department, and other special features that will be erected as finances

permit. When these are added, Garfield will have a school plant admirably suited for developing the best type of junior high school. Through the praiseworthy cooperation of the community with the board of education a frame gymnasium, 100 by 54 feet, with an annex 100 by 20 feet, was built and equipped during the summer of 1922.

Some of the special features in the new main building are deserving of mention. On each floor is a double classroom, with a stage room between. The sliding walls of the latter permit it to be thrown with either or both of the classrooms. The stage is raised 18 inches. This arrangement for dramatization, small assemblies, clubs, and choruses is proving of great value.

The art department includes two well-arranged drawing rooms, with a specially equipped crafts room between.



GARFIELD JUNIOR HIGH SCHOOL—FIRST FLOOR PLAN.

The commodious library opens into a large artistic reading room, with an open fireplace at each end. The library has grown from 50 volumes to 1,500 volumes in one year.

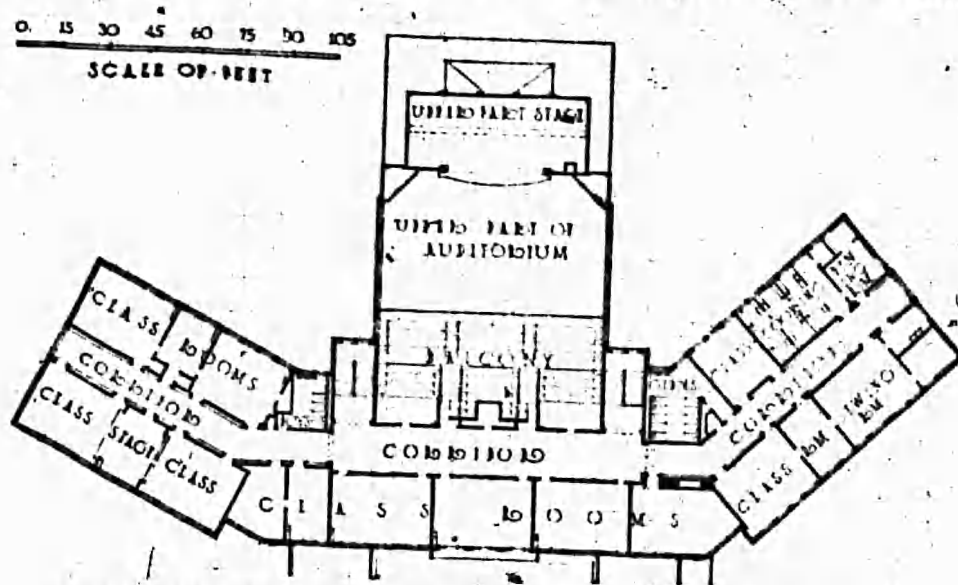
The household arts room is exceptionally lighted and, beyond all, convenient. The household science room is equipped with six attractive kitchenettes, each accommodating four girls.

The entire third floor is given over to a cafeteria and lunch room, where more than 500 children take their lunches daily. The location of this feature of the school is very satisfactory, as no odor from cooking reaches the classrooms.

Other special rooms are the science room (with raised seats and a convenient laboratory), club room, teachers' room, laundry, matron's room, first-aid room, girls' advisory room, and demonstration bedroom.

The patrons of the school are largely home owners in comfortable circumstances and, by a great majority, of American birth. They realize the value of education, and the greater part of them desire that their children shall go to college. Practically all the pupils complete the high school. Consequently, the course of study is planned with this in view.

As promotion is made by subject, it is not uncommon for students to enter the senior high school with six or seven units of credit and to complete their high-school course in two years. These units are



GARFIELD JUNIOR HIGH SCHOOL—SECOND FLOOR PLAN.

usually obtained by the study of a foreign language in the seventh, eighth, and ninth grades, thus securing two units of credits.

In at least two phases of the English work Garfield School has secured excellent results. From the beginning memory work and oral composition are emphasized; debating and four-minute speeches are required.

Selections that have been thoroughly learned and rehearsed are given before classes in lower grades. This serves a double purpose, giving practice and confidence to the speakers and familiarizing the lower-class pupils with the work, thus inspiring them to emulation.

Dramatization is carried on continuously. Practically every selection studied is dramatized to some extent. Among these are: Horatius, Sohrab and Rustam, Evangeline, and the Lady of the Lake. For the past eight years it has been the custom semiannually to give a Shakespearean play in the ninth grade. The play is the thing which

interests the whole community and fosters the growth of the community spirit.

Situated as it is in the center of one of the most attractive and rapidly growing sections of Berkeley, the Garfield School has almost unlimited possibilities of development in every desirable line.

X. THE WILLARD JUNIOR HIGH SCHOOL.

When the Berkeley intermediate system was instituted, the existing grammar schools were not all running on the same plan. Principal Charles L. Biedenbach completed the departmentalization of the McKinley School as early as 1901, and following a report of the committee of nine (1905), of which Prof. Elmer E. Brown was chairman and Mr. Biedenbach secretary, French, German, Latin, Italian, and Spanish were taught when desired, before or after the regular school hours. Mechanical drawing was well done; free-hand courses were far in advance of those of the traditional grammar school; and music, both vocal and instrumental, was distinctly featured.

The patrons of the school took a just pride in the many special advantages offered and supplemented its regular funds by liberal community aid, thus securing some artistic furnishings, good pictures, and notably a bust of President McKinley and instruments for the band.

Familiar with the departmental plan of teaching by specialists, already having classes in the languages, free-hand and mechanical drawing, vocal and instrumental music, the transition to the intermediate type of organization was easily and successfully made.

The school had an additional advantage over the other intermediate schools, for the seventh, eighth, and ninth grades were placed in a building of their own at the beginning; hence they avoided the confusion incidental to a one-nine or dual school organization.

Since 1912 the school has been under the direction of Mr. Wellyn B. Clark.

Outgrowing its old quarters, it was moved in 1916 to its present home in a building of mission renaissance style on Telegraph Avenue, at Ward Street, and renamed the Frances E. Willard Junior High School.

Nearly 800 pupils are now in attendance. Their parents are chiefly engaged in business or professional life. Eighty per cent of them are American-born citizens and 10 per cent additional are naturalized citizens from the northern races of Europe, with similar traditions and ideals of government. The remaining 10 per cent are of widely various nationalities.

Records show that 96 per cent of the eighth grade enter the ninth grade, and that 90 per cent of the eighth grade enter the tenth year,

or senior high school. Since the majority of the parents are in a position to urge their children to fit themselves for a business or professional career, practically all pupils who have the ability plan to complete the college course. Because of this demand the Willard stresses instruction in the languages, particularly the Latin.

Younger pupils adapt themselves more readily to foreign pronunciation, they have more freedom in conversation, there is time in which forms and vocabularies are mastered more thoroughly, the introduction of matches, toys, games, stories, and plays holds the interest of the pupils, and they are better grounded for senior high school work and for college.

The school has both junior and senior bands and orchestras. The many additional opportunities offered in the home for private instruction prepare for the school a number of pupils who play very well indeed. This highly desirable nucleus of trained musicians makes it possible for the school bands and orchestras to attain a standard seldom reached by organizations of the same school grade.

For many years the Willard Choral Club has reached a high degree of excellence in singing four-part music. Apart from the special subjects alluded to, the school has proven that the junior high school conduces to higher standards of work. The recent classification of the pupils into groups by means of mental tests has resulted in raising the already high standard quite perceptibly, as is indicated by the report of the vocational counselor at the upper high school.

XI. THE SCHOOL COUNSELING PROGRAM.

[The development of school counselor and vocational guide has been under the direction of Dr. Virgil E. Dickson, director of the bureau of research and guidance in the Berkeley schools. The following explanation of the work of this department was prepared by him.]

In the moving and shifting population which is characteristic of the present age, a large percentage of school children suffer a handicap by losing their stride in school work or by actually being demoted when they move from one school district to another. Principals and teachers are prone to feel that—

Our school has higher standards of work than most other schools, and our books are different from those in other States; the association and teachers are new and strange to the child, and as the child has lost possibly a week or two or maybe more of time in making the transfer it will be safer for him to drop back one-half year, where he will be sure to make good.

The average pupil, thus moving about is already overage for his grade, but this fact is seldom taken into consideration by the principal when he classifies the child received by transfer. This dropping behind grade because of moving about has assumed such large pro-

portions that it is worthy of the serious consideration of all principals and teachers.

The numerous difficulties that surround a child when he enters a new school make it especially desirable that he have the best possible counsel and guidance. This is particularly true when the new school offers electives or choice of courses, as in our junior high schools and senior high school.

Research studies of age and grade distribution of accomplishment and of capacity of children in school reveal that a large percentage of our school children are not placed in the grade where they can do their best work. Most grades have from 30 to 50 per cent of over-ageness. Many pupils are found with a mental capacity equal to the work of one or two grades above the one in which they are working. These conditions are accepted by teachers and by principals without sufficient thought as to how they can best be remedied or improved.

With a view to assisting principals in better placement of children in their schools the bureau of research and guidance has adopted the policy of selecting for each school a school counselor, who is one of the teachers of that school and whose specific duty is to work with the principal to discover the misfit children, whether they be above or below standard, and whose duty is to make suggestions for better placement of such children. This counselor is not vested with authority to do any administrative or executive work in the school, but she is trained to observe data and records carefully in such a manner as to enable her to interpret accurately such data as may come with the child who transfers from another school, or as may be found in the school in which he is working, with a view to the most satisfactory placement of such child. The only power which such a counselor has is that of placing evidence before the principal and making recommendation to him about the placement of children. The counselor is trained in mental testing. The results of the mental tests are frequently used to help in deciding the work it is best for the child to do.

During the past year one of our elementary-school principals has given careful mental tests to every child who came for admission by transfer from some other school. In about 50 per cent of the cases the tests revealed a mental capacity above that regularly found in the grade to which the child's credentials assigned him. This principal and counselor have adopted the plan that the child who shows capacity above his grade is to be placed in a special coaching or opportunity class, or in some other manner given an opportunity to make up work quickly in order to fit himself to enter the grade in which his capacity entitles him to work normally. This school has high standards of work, yet the characteristic thing that happens to

the child who comes for entrance is to be promoted one or more half years within the first six months that he attends this school.

A cumulative record card is kept, showing the child's accomplishment, attendance, and attitude toward work. The data on this card furnish some help for guidance and placement. Such cumulative record cards are kept in the best schools over the country, but seldom are these cards sent with the child's transfer into another district. Valuable time is lost by the new school before it detects powers and weaknesses which could easily have been known had the previous cumulative records been available. Some teachers and principals have maintained that a child's record should not follow him. This is absurd. The record of an individual, whether good or bad, should be interpreted in the light of what is best for that individual in the future. The counselor or teacher who is worthy of the place should in no sense condemn a child or refuse him the opportunity to do anything that is worthy which he is capable of doing simply because some past record has not been good. The policy of our counseling program is to use and not to lose the valuable data that come from a cumulative record card.

Whenever mental tests or standard tests of accomplishment are used in the school, it is the duty of the principal and counselor to study these tests with a view to determine whether any child is misplaced.

It is a specific duty of the counselor and principal to give direction to every student who passes from one school to the next higher school. Obviously, a good counselor is one who has keen insight into child psychology and practical teaching experience and knowledge of mental testing and a thorough knowledge of educational opportunities and of the demands of the next higher school and the knowledge of the conflicting situations that are apt to confront the child.

When a class is ready to go, let us say, from the junior high school to the senior high school, the counselor should have access to all data and information, such as tests of capacity, tests of accomplishment, case histories, and records of interests and ambitions of each child. After general discussion of the conditions involving enrollment and classification in the senior high school, the counselor should have a personal interview with each child, at which time is made out a tentative program for the first term in the senior high school. This program should naturally be considered in the light of the child's ambitions, looking over the whole course of three years and the opportunities which the high school has to offer, together with the interests, plans, and capacities of the child. This program, then, is subject to the approval of the principal, of the parent, and of the child, after which it should be accepted by the senior high school without change except for good and sufficient reason. which reason

should be recorded in writing on the child's program card. This program card is filled out and signed by the counselor in the junior high school and shows the subjects which the counselor recommends the child shall take in the senior high school.

Although the chances for electives are less numerous, a similar program is worked out for each class that is promoted from the elementary school to the junior high school. A blank is used showing the names of all pupils of the class, and after each name is recorded the data in regard to sex, general intelligence, school work, industry, health, home cooperation, chronological age, mental-test score, class median, date of test, examiner, and recommendation.

Through the guidance and counseling work in the Berkeley schools nearly all of the serious cases of overage and low mentality found in the elementary schools have been cared for in opportunity classes. Each term counselors and principals in all the elementary schools are requested to recommend pupils for the special opportunity class at the Burbank School. These pupils are frequently doing failing work in third, fourth, or fifth grade, and yet are 13 years old or over. Whenever it seems that such a pupil has received the maximum benefit possible to him in the elementary school, he is transferred into the intermediate-school opportunity class. For several semesters this program has been followed, with the result that we now have very few overage boys and girls in the elementary school who are merely "marking time."

In the first place something like 200 of the worst cases of retardation in the elementary schools have been taken over in the opportunity class mentioned above in the junior high school, and nearly all these pupils have shown a better attitude toward school work, a better attitude toward citizenship, and better accomplishment than formerly. Many of them have found a type of work which brings about a wholesome interest, and are doing well in fitting themselves for citizenship.

Through the general placement program, hundreds of children have been reclassified and placed in work better suited to their needs and interest. Hundreds more who transferred from a lower to a higher school have gone to the new school with a clearer understanding of what was expected and what could be done, so that the gap between the two schools has been much more perfectly bridged than heretofore, and each student moves off in his new school at the first of the term with less lost time and each has a more perfect knowledge that he is doing the work which most nearly fits his needs which the school has to offer.

The teachers were very slow at first to agree to the grouping of the pupils according to their mental ability—the brighter ones in the one group and the slower ones in another. Many of them believed

that the effect on the slower groups would be disastrous; that they would feel it a disgrace or humiliation; and that all ambition and enthusiasm would be killed; while if they were distributed among the brighter pupils they would maintain their interest and grow and advance with the class. There were those, on the other hand, who believed that pupils should be grouped according to their mental ability, and that the course of study should be adopted to their capacities. They felt it was a mistake to hold back the brighter pupils for the sake of the slower ones. The experiment proved very satisfactory. Few, if any, bad effects on the slower groups have been discovered, while the changed curriculum has worked marvelously with both groups.

Pupils in each group work to capacity, and those comprising the brighter groups have a very much more enriched course than the slower sections. It is possible with this method of classification to complete the three years' junior high school course in two and one-half years, and occasionally pupils cover the work in two years. The brighter pupils carry more subjects, or as a class do four terms of work in three terms. In no case, however, are pupils given credit for accelerated work unless their grades have been university recommendations. Approximately 22 per cent of the students gain from six months to one and one-half years in their junior and senior high school courses. This means a saving to the city and permits students to enter the university at an earlier age than formerly.

The senior high school reports that 90 per cent of these accelerated pupils continue to hold their own in scholarship throughout their high-school course, and that they take their place in all social activities with the other students of the school, despite the fact that they are younger in years than their classmates.

While we are making decided progress in the vocational field, we are yet only in the process of developing those who will have grasp enough of the problem of vocational counseling to solve it intelligently. The great mass of parents and teachers have little conception of counseling those in their care as to the choice of a life's vocation. Though we offer many prevocational experiences, our modern youth very properly resents being directed or led by those, whether parents or teachers, who have simply had a few blundered into experiences of their own with which to guide others. We are expecting to specialize still further to achieve the necessary standards for vocational guidance.

XII. CONTRIBUTING AGENCIES.

Under the school law of California all pupils are required to attend day school until 16 years of age, with the exception that those 15 years of age who have completed the seventh grade may support

themselves if necessary. As nearly as may be determined, not more than 5 per cent of the junior high school pupils are kept in school by compulsion.

Berkeley is peculiarly fortunate in having other contributing agencies which make for the success of the junior high school. The State and county provide adequate support for orphans, half orphans, court wards, and children of incapacitated parents up to the age of 16 years, so that they may be kept in school. For the most part these children in Berkeley are in the care of the Berkeley Welfare Society, which, with the aid of private funds and the assistance of the Red Cross, sees that such children are properly housed, fed, clothed, and as far as possible given a real home life. More than \$75,000 annually is disbursed by the society for this purpose.

The Berkeley Dispensary, working in cooperation with the State board of health, the health nursing units of the board of education, and the University of California, makes it possible for the schools to provide medical and surgical care for all pupils whose parents are financially unable to do so for them.

The Berkeley Day Nursery takes care of children not of school age, so that their brothers and sisters may regularly attend the junior high school.

The Mobilized Women of Berkeley is a unique organization which is also of great assistance to the poor. It collects salvage from the citizens, such as old newspapers, clothing, shoes, and furniture. From its three salvage shops it sells renovated and repaired clothing, shoes, and other articles at a low price to those in need, thus enabling many children to come to school properly clothed who could not so dress without this service.

The Berkeley Police Department is often of timely assistance in solving the perplexing problems which arise in dealing with psychopathic, atypical, and delinquent children. Our educated policemen are credited with helping many boys and girls to save themselves, particularly those of the impulsive junior high school age.

The parent teacher associations are largely responsible for the close cooperation between the school and the home. These associations have assisted schools to obtain equipment not otherwise supplied. They provide scholarships for deserving pupils. Their own educational program supplements that of the school. It is largely through this organization that the parents of the children are kept fully informed of the aims and purposes of the junior high school, and are enabled to work with the board of education to accomplish what is best for Berkeley's boys and girls.

XIII. SUMMARY.

From the statements and implications in the preceding sections, certain conclusions and tendencies are evident:

1. The attracting and holding power of the junior high school organization is much more effective than the type of school which previously served grades 7, 8, and 9 in Berkeley.

2. The teaching staff is much better prepared for its work than obtained under the earlier type of organization.

3. Much richer and more varied advantages are provided for the education of the pupils in grades 7, 8, and 9 than were supplied before the junior high schools were organized.

4. More advantages emanate from pupil contacts with each other, since large numbers of the same age and social development are brought together in the junior high school.

5. The total situation in a junior high school enrolling 500 to 800 pupils with a sufficient staff of competent teachers is more inspiring to all concerned than was possible under the previous organization where the seventh and eighth grades were taught in small groups in the elementary schools. More types of things can be attempted, more interests and varieties of ability are appealed to and properly nourished, and all—pupils and teachers—become more ambitious to do the most worth-while things in thoroughly effective ways.

Many improvements and developments remain to be accomplished before the junior high school will have reached the plane of excellence it should attain. It has, however, demonstrated such great advantages that no progressive school system can possibly wish to abandon it. Indeed, every progressive school system which has not developed a junior high school system is now taking steps to establish such a system as soon as possible.

○