TRENDS IN PUBLIC AND PRIVATE SECONDARY EDUCATION IN THE UNITED STATES SINCE 1890

By

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PREFACE

The special function of this thesis is to indicate trends in the development of secondary education in the United States during the last forty years. Cue concepts regarding tendencies are suggested, but the author has not aspired to completeness of statement. Many trends and numerous details have been omitted, quite necessarily, because of the desirability of limiting a vast subject to a reasonable number of pages.

The major topics and the sequence in which they will be considered are: Enrollments and Schools, Teachers, Organization and Administration, Programs and Curricula, Instruction and Procedure.

This volume is presented with apologies for the omissions and shortcomings that must inevitably characterize such a work, but with the hope that the compilation and organization of material into a unified presentation has resulted in something of value, rather than that it is to any considerable extent an original contribution.

Conclusions have been drawn and generalizations made from material gleaned from the works of experts in the field of secondary education. The writer acknowledges that without the pioneering and constructive accomplishment of leaders and authorities, her own humble gathering of trends would have been impossible. She wishes to thank all the publishers from whose copyrighted material she has quoted.

April 18, 1934 Helen B. Goetsch

INTRODUCTION

One of the most interesting and outstanding features in the achievements of recent years is the development of American secondary education. Within the past four decades, and especially within the last fifteen or twenty years, secondary education has undergone significant changes, involving quantitative and qualitative aspects. Extraordinary has been the improvement in the facilities afforded, the increase in the number of persons who have been brought within the influence of the secondary school, and the modifications in the nature of the education provided.

The history of secondary education has been neglected during late years, particularly since 1910. It is indeed strange that so little attention has been given to this subject since Elmer Ellsworth Brown wrote his memorable volume, "The Making of Our Middle Schools."

In this thesis, particular emphasis has been given to educational trends since 1920, and much of the material has been gathered and compiled so as to compare public with private secondary education in 1890, 1900, 1910, 1920, and 1930.

CHAPTER I

ENROLLMENTS AND SCHOOLS

ENROLLMENTS AND SCHOOLS

Lengthening Period of Nurture Required by Modern Life

Changes in our industrial, social, and intellectual life since 1890 have tended to extend the quantity and quality of schooling necessary for good citizenship and social efficiency. Ross L. Finney says:

> "In the first place, the period of dependency is lengthening, especially among the more prosperous and cultured classes. It is lengthening even among the less prosperous classes also, to the degree in which their young people are receiving the extended schooling necessary for good citizenship and social efficiency. Young people are remaining in school longer; and are hence longer in the parental home and under the parental tutelage. In other words, the period of nurture is being lengthened instead of being shortened by the trend of modern conditions; and this is precisely what is to be expected. The more complex the civilization, the longer the period that Fiske called infancy." 1

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1 R. L. Finney, A Sociological Philosophy of Education, p. 195.

A general educational awakening has taken place in America during the last four decades.

> "Down until nearly the end of the nineteenth century, comparatively few pupils passed on from the common school to the high school, and cases were rare in which graduates of the free public high school went to college. The surpassing educational awakening which began to be evident at about 1900 changed all that. Ordinary folks in ever-increasing numbers began to plan to send their children to college. The easy-going ways which had answered for a century would no longer serve." 2

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2 H. C. Morrison, The Practice of Teaching in the Secondary School, p. 4.

America, as well as all other democracies, requires an educated proletariat. Percival R. Cole, in "A History of Educational

Thought" on page 302 says: "The proportion of fairly well educated people tends to be higher in America than anywhere else in the world. Thus the United States seek a well-educated proletariat." And Ross L. Finney says: "The ideal of secondary education, open freely to the middle class, and theoretically at least to the laboring classes, also, was never dreamed of till near the close of the nineteenth century." 3

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3 R. L. Finney, op. cit., p. 110.

There has been an increase in the quantity of knowledge, or social heritage. This, together with our changed conceptions of an educated person, tends toward the lengthening of the school year and school requirements.

> "There has come not only a tremendous increase in the quantity of our knowledge, but also a demand for a large increase in the amount of knowledge necessary to enable one to meet the changed conditions of our modern life. The kind of knowledge needed, too, has fundamentally changed. The ability to read and write and cipher no longer distinguishes the educated from the uneducated man. A man must have better, broader, and a different kind of knowledge than did his parents if he is to succeed under modern conditions. Success is higher up the ladder now than it was a generation ago." 4

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4 E. P. Cubberley, Changing Conceptions of Education, pp. 18-19.

"Five or six months of common school education each year for a few years are no longer enough, and on all sides the school year is being lengthened and the educational requirements increased."5

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5 Ibid., p. 56.

Those communities have profitted most, which have striven

to develop educational facilities to meet the needs of adolescent boys and girls, instead of placing them early in industry.

> "From a study of 45,000 adolescents in industry in New York State it seems reasonable to hold that industry has little to offer the 14-, 15-, or 16-year old youth. The large majority are employed in jobs which offer little opportunity for advancement. As was found in the Cleveland vocational survey 'There is practically no place in modern industry for children under sixteen or seventeen years of age.'" 6

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6 The Development of the High-School Curriculum, Department of Superintendence, Sixth Yearbook, p. 35.

This tendency, which is constantly increasing, has led to the establishment of compulsory school-attendance legislation.

> "Since 1900, and due more to the activity of persons concerned with social legislation and those interested in improving the physical and moral welfare of children than to educators themselves, there has been a general revision of the compulsory education laws of our States and the enactment of much new child-welfare and anti-child-labor legislation. As a result of this the labor of young children has been greatly restricted; work in many industries has been prohibited entirely, because of the danger to life and health; compulsory education has been extended in a majority of the States to cover the full school year." 7

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7 E. P. Cubberley, Public Education in the United States, p. 380.

F. H. Swift, in his chapter "Public School Finance" gives a resume of the enactment of compulsory school laws and the extension of the school age, as follows:

> "In 1894-95, according to the Commissioner of Education, there were nineteen states which had no compulsory school law. In 1920 there was not a single state in the union which did not have such a law. It is scarcely necessary to add that the degree of effectiveness with which these laws have

been enforced has steadily increased throughout the last twenty-five years, with the result that a larger and larger percentage of children of school age has been found within the public schools. Not only is this true, but a comparison of the compulsory school age in those states which in the year 1895 had a compulsory school law with the compulsory school age in these same states for the year 1918 shows that, while in New Hampshire the compulsory school age had decreased two years, in New Mexico one year, and in five states had remained unchanged, yet in eighteen states it had increased all the way from one to four years. In this connection, attention should be called to the length of the average school year in the United States, which increased from 135 days in 1890 to 162 days in 1920." 8

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8 I. L. Kandel, Twenty-Five Years of American Education, pp. 202-3.

Quantitative Development in Enrollments and Schools

Statistics and Interpretation of Data

One of the most amazing characteristics of secondary education within the last forty years has been the quantitative development in enrollments and schools.

> "The outstanding fact in the development of secondary education is the increase in numbers--number of students, of teachers, of buildings. The numbers are so large and so far outside of our experience that we cannot conceive them. It will not help, either, to stand the students end on end, in accordance with familiar statistical devices, so that they reach to Mars or some other planet; for in so doing we try to explain the unknown by the unknown." 9

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9 E. A. Fitzpatrick, The Scholarship of Teachers in Secondary Schools, p. 3.

The colossal development of secondary education between 1890 and 1930 is shown in Table I on the next page. During this forty year period the total number of high schools (public and

TABLE I

Showing the Growth of Secondary Schools and of Secondary School Enrollments 1889-90 to 1929-30

Items	Schools	1890	1900	1910	1920	1930
Number of Schools	Public	2526	6005	10,213	14,326	23,930
	Private	1632	1978	1,781	2,093	2,760
	Total	4158	7983	11,994	16,419	26,690
Number of Students	Public	202,963	519,251	915,061	2,199,389	4,399,422
	Private	94,931	110,797	117,400	184,153	309,052
	Total	297,894	630,048	1,032,461	2,383,542	4,708,474
Total Population of U.S.		62947714	75994575	91972266	105710620	122775046
Pupils per 1000 of Pop.	Public	3.2	6.8	10.0	20.8	35.8
	Private	1.5	1.5	1.3	1.7	2.5
	Total	4.7	8.3	11.3	22.5	38.3
Number of Graduates	Public	21,882	61,737	111,363	230,902	591,719
	Private	8,070	12,216	14,409	24,166	51,447
	Total	29,952	73,953	125,772	255,068	643,166

This table was derived from data given in the Biennial Survey of Education, 1928-30, Vol. 2, Office of Education Bulletin, 1931, No. 20, Vol. 2, pp. 697 and 784. Figures for grades corresponding to the four upper grades of the high schools only are considered in this table. This does not include preparatory departments of colleges or secondary students in teacher-training institutions. Population was taken from the "Abstract of the Fifteenth Census of the United States," p. 10.

private) increased from 4,158 to 26,690--a gain of 22,532 schools in 14,609 days--a total gain of approximately 542 per cent. The private school increased 69 per cent, while the

public schools increased 847 per cent. The number of private schools reporting to the Bureau of Education actually decreased from 1900 to 1910, even though the enrollment increased. This apparently was a period in which a number of small private schools were eliminated. There was an increase in the total number of secondary school buildings (public and private) of 3,825 from 1890 to 1900; 4,011 from 1900 to 1910; 4,425 between 1910 and 1920; and 10,271 from 1920 to 1930.

There has been also a tremendous increase in student enrollments from 1890 to 1930. At the beginning of this period, the enrollment in high schools (public and private) was 297,894, while in 1930 it was 4,708,474--a gain of 4,410,580 students, or 1480 per cent. The relative increase is shown in Table II.

TABLE II

Showing the Increase in Student Enrollments of the Four Upper Grades of Secondary Schools (Public and Private) 1890 - 1930

Ten Year Period	Public Schools		Private Schools	
	Student Increase	Per cent of Total Increase	Student Increase	Per cent of Total Increase
1890-1900	316,288	7.54	15,866	7.41
1900-1910	395,810	9.43	6,603	3.08
1910-1920	1,284,328	30.61	66,753	31.18
1920-1930	2,200,033	52.43	124,899	58.33
Totals	4,196,459	100.01	214,121	100.00

Table II was compiled from data in Table I on page 7, and indicates that there were 316,288 more students enrolled in the public high schools in 1900 than in 1890. This was approximately 7.54 per cent of the total increase during the forty year period under discussion. During the next three ten-year periods, the increase was 9.43 per cent, 30.61 per cent, and 52.43 per cent. Over half of the total increase in enrollment took place during the last ten year period, 1920-1930. It is also interesting to note a similar trend in private school enrollments. When we note this relative increase, we wonder whether the end of expansion is yet here. The saturation point has probably not yet been reached. More discussion will be given on this point under the heading "Actual enrollment compared with the potential high school population".

According to the New International Year Book of 1928, p. 226, "In 1890 only 1.6 per cent of the school enrollment was in high schools. In 1926, 15.2 per cent of the total enrollment was in the high school."

Out of every one thousand of the total population, the number of secondary school pupils increased from 4.7 in 1890 to 38.3 in 1930, or more than eight times as rapidly as the population increased.

This is certainly a strikingly remarkable development, with much meaning and significance.

> "The amazing increase in numbers of pupils who within recent years have enrolled in our secondary schools, especially in our four-year high schools, would indicate that these institutions either actually are meeting or are seeming to meet the needs of our American society. At least American

parents are demanding for their children more than an elementary education. In other words we have secondary schools because society demands them. This statement, however, is by no means an answer to the question; it merely brings the answer one step nearer. We must still ask, Why does society demand secondary schools? To this question no single answer can be given." 10

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10 The Development of the High-School Curriculum, Department of Superintendence, Sixth Yearbook, p. 39.

George Counts holds seven factors responsible for the rapid growth of high schools.

"So if we should endeavor, in a single sentence, to account for the growth of the high school, we would say that it is the product of a new social order--the resultant of a whole series of forces and conditions which we call industrial civilization.... To my mind there are seven factors which, working in close union, have been largely responsible for bringing the secondary school into the fourth great creative period of its history since the fall of the ancient empires. The rapid democratization of secondary education in our time may be traced to the presence of certain social ideals in the United States, the prior extension of the opportunities of elementary education, the appearance of a highly integrated society, the growing complexity of civilization, the increase in wealth and income, the decrease in the death rate, and the decline of the birth rate." 11

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11 G. S. Counts, The Inglis Lecture, 1929, "Secondary Education and Industrialism," pp. 22-4.

We may contrast this increase in high school education in America with European traditions, as follows:

"It is not at all the uniform expectation in the United States that a boy will do what his father did before him or that a girl will imitate her mother. If there is one characteristic more conspicuous than another in an American, it is his determination to seek the adventure of a career which has never been followed by any of his forebears. The possibility of migration to new parts of the country, the rapid development of new industries, the opening

up of a host of new professions, have created on this continent a movement in our population and a variety of experiments in personal adaptation which have no parallel in the older civilizations." 12

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12 C. H. Judd, The Inglis Lecture, 1928, "The Unique Character of American Secondary Education", pp. 14-15.

These, then, are some of the causes of the great quantitative development in enrollments and schools.

There have been some interpretations of the value of this educational spread, or diffusion of educational opportunity.

> "One may, therefore, I think, infer from the facts (1) that we value the kind of fair play which gives every boy or girl, who has any ability at all, some chance at school through the adolescent period; (2) that we value literacy as against illiteracy; (3) that we value youth and hesitate to bring it to an early termination either by shunting boys and girls into deadening occupations or by subjecting them to serious intellectual effort as an essential part of the higher educational process; (4) that to some extent we value intelligence and training." 13

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13 A. Flexner, The Inglis Lecture, 1927, "Do Americans Really Value Education?" p. 9.

Lack of opportunities for employment and other factors have created a growing demand for educational opportunities beyond the twelfth grade. "There were 29,225 postgraduates in the public high schools of the United States during the year 1929-1930. This postgraduate enrollment has increased two hundred sixty-six per cent since 1919-1920." 14

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14 E. W. Jacobsen, Educational Opportunities Provided for Postgraduate Students in Public High Schools, p. 3.

The enrollment of the four upper grades of the high school has

increased 95 per cent during the same period, (see Table I on page 7) or less than one-half as much as the postgraduate enrollment.

> "The increase of 1929-30 is attributed largely to the economic depression.....However, another reason must be considered in the increase in the number of postgraduates. The so-called tightening up of college requirements often makes it necessary for students to return to high school for additional points or to raise their marks for college entrance. These students enroll as postgraduates. The popularization of education beyond the high school level accounts for a large number of high school graduates returning for additional work. The postgraduate enrollment on the whole, therefore, has increased very definitely during the last ten years, with present indications that the number will be still larger in the future. In some communities serious consideration is being given to the possibility of establishing systematic work beyond the twelfth grade." 15

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15 Ibid., pp. 4-5.

This thought will be continued in the discussion of the junior college, in Chapter III.

Inequality between States and Localities

We must not assume that this increase in high school enrollment has developed uniformly in all states, or in all localities. Table III-A, III-B, and III-C, on pages 13, 14, and 15 indicate inequalities between states. Table III-A shows the combined enrollment in public and private high schools in 1890 and in 1930, together with the increase in number of students enrolled, and the per cent of increase for each state. Figures for the District of Columbia have been included, even though they are not entirely comparable with the figures of the states. Table III-A does not take into account the many inequalities

TABLE III-A

Showing How the Total Increase in Public and Private Secondary School Enrollment from 1890 to 1930 Has Been Distributed Among the States

State	1889-90	1929-30	Increase in Number	Per cent of Increase
Alabama	2,829	64,512	61,683	2180
Arizona	42	15,757	15,715	37417
Arkansas	1,687	47,335	45,648	2706
California	12,856	245,604	232,748	1810
Colorado	1,192	45,465	44,273	3714
Connecticut	5,558	68,160	62,602	1126
Delaware	796	7,567	6,771	851
District of Columbia	2,672	19,721	17,049	638
Florida	1,119	46,656	45,537	4069
Georgia	6,436	84,391	77,955	1211
Idaho	132	27,918	27,786	21050
Illinois	18,514	327,299	308,785	1668
Indiana	8,998	149,913	140,915	1566
Iowa	13,699	124,926	111,227	812
Kansas	6,988	95,001	88,013	1259
Kentucky	4,018	68,587	64,569	1607
Louisiana	1,961	62,503	60,542	3087
Maine	7,357	36,186	28,829	392
Maryland	2,894	47,252	44,358	1533
Massachusetts	23,696	181,149	157,453	664
Michigan	13,824	175,127	161,303	1167
Minnesota	6,817	107,601	100,784	1478
Mississippi	2,737	54,759	52,022	1901
Missouri	10,086	140,952	130,866	1298
Montana	505	26,057	25,552	5060
Nebraska	5,068	71,649	66,581	1314
Nevada	249	3,762	3,513	1411
New Hampshire	4,450	17,672	13,222	297
New Jersey	6,956	131,484	124,528	1790
New Mexico	133	13,699	13,566	10200
New York	38,758	464,045	425,287	1097
North Carolina	3,684	122,663	118,979	3230
North Dakota	313	30,590	30,277	9673
Ohio	23,470	285,177	261,707	1115
Oklahoma	231	106,289	106,058	45913
Oregon	1,292	49,481	48,189	3730
Pennsylvania	18,120	325,715	307,595	1698
Rhode Island	2,442	20,137	17,695	725
South Carolina	2,143	54,976	52,833	2465
South Dakota	563	32,456	31,893	5665
Tennessee	4,706	74,026	69,320	1473
Texas	6,097	241,533	235,436	3862
Utah	739	33,896	33,157	4487
Vermont	4,543	13,571	9,028	199
Virginia	4,803	80,460	75,657	1575
Washington	805	88,648	87,843	10912
West Virginia	822	50,009	49,187	5984
Wisconsin	9,915	114,911	104,996	1059
Wyoming	179	11,227	11,048	6172
Totals	297,894	4,708,474	4,410,580	1481

TABLE III-B

Showing How the Increase in Population from 1890 to 1930 Has Been Distributed Among the States

State	1889-90	1929-30	Per cent of Increase
Alabama	1,513,401	2,646,248	75
Arizona	88,243	435,573	394
Arkansas	1,128,211	1,854,482	64
California	1,213,398	5,677,251	368
Colorado	413,249	1,035,791	151
Connecticut	746,258	1,606,903	115
Delaware	168,493	238,380	41
District of Columbia	230,392	486,869	111
Florida	391,422	1,468,211	275
Georgia	1,837,353	2,908,506	58
Idaho	88,548	445,032	403
Illinois	3,826,352	7,630,654	99
Indiana	2,192,404	3,238,503	48
Iowa	1,912,297	2,470,939	29
Kansas	1,428,108	1,880,999	32
Kentucky	1,858,635	2,614,589	40
Louisiana	1,118,588	2,101,593	88
Maine	661,086	797,423	21
Maryland	1,042,390	1,631,526	57
Massachusetts	2,238,947	4,249,614	90
Michigan	2,093,890	4,842,325	131
Minnesota	1,310,283	2,563,953	96
Mississippi	1,289,600	2,009,821	56
Missouri	2,679,185	3,629,367	35
Montana	142,924	537,606	276
Nebraska	1,062,656	1,377,963	30
Nevada	47,355	91,058	92
New Hampshire	376,530	465,293	24
New Jersey	1,444,933	4,041,334	180
New Mexico	160,282	423,317	164
New York	6,003,174	12,588,066	110
North Carolina	1,617,949	3,170,276	96
North Dakota	190,983	680,845	256
Ohio	3,672,329	6,646,697	81
Oklahoma	258,657	2,396,040	826
Oregon	317,704	953,786	200
Pennsylvania	5,258,113	9,631,350	83
Rhode Island	345,506	687,497	99
South Carolina	1,151,149	1,738,765	51
South Dakota	348,600	692,849	99
Tennessee	1,767,518	2,616,556	48
Texas	2,235,527	5,824,715	161
Utah	210,779	507,847	141
Vermont	332,422	359,611	8
Virginia	1,655,980	2,421,851	46
Washington	357,232	1,563,396	338
West Virginia	762,794	1,729,205	127
Wisconsin	1,693,330	2,939,006	74
Wyoming	62,555	225,565	261
Totals	62,947,714	122,775,046	95

TABLE III-C

Comparing the Per cent of Increase in Secondary School Enrollment for Each State with the Per cent of Increase in Population from 1890 to 1930

State	Per cent of Increase		Quotient
	Secondary School Enrollment	Population	
1. Arizona	37417	394	95
2. New Mexico	10200	164	62
3. South Dakota	5665	99	57
4. Oklahoma	45913	826	56
5. Idaho	21050	403	52
6. South Carolina	2465	51	48
7. West Virginia	5984	127	47
8. Nebraska	1314	30	44
9. Arkansas	2706	64	42
10. Kentucky	1607	40	40
11. Kansas	1259	32	39
12. North Dakota	9673	256	38
13. Missouri	1298	35	37
14. Louisiana	3087	88	35
15. Virginia	1575	46	34
16. Mississippi	1901	56	34
17. North Carolina	3230	96	34
18. Indiana	1566	48	33
19. Washington	10912	338	32
20. Utah	4487	141	32
21. Tennessee	1473	48	31
22. Alabama	2180	75	29
23. Iowa	812	29	28
24. Maryland	1533	57	27
25. Vermont	199	8	25
26. Colorado	3714	151	25
27. Texas	3862	161	24
28. Wyoming	6172	261	24
29. Georgia	1211	58	21
30. Delaware	851	41	21
31. Pennsylvania	1698	83	20
32. Maine	392	21	19
33. Oregon	3730	200	19
34. Montana	5060	276	18
35. Illinois	1668	99	17
36. Minnesota	1478	96	15
37. Nevada	1411	92	15
38. Florida	4069	275	15
39. Wisconsin	1059	74	14
40. Ohio	1115	81	14
41. New Hampshire	297	24	12
42. New York	1097	110	10
43. New Jersey	1790	180	10
44. Connecticut	1126	115	10
45. Michigan	1167	131	9
46. Massachusetts	664	90	7
47. Rhode Island	725	99	7
48. District of Columbia	658	111	6
49. California	1810	368	5
Totals	1481	95	16

The 1890 figures were taken from the Report of the Commissioner of Education for the year 1889-90, Vol. 2, pp. 1388 and 1486. The 1930 figures were taken from the "Biennial Survey of Education, 1928-1930," U.S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 44 and 788-9. The population statistics were taken from the "Abstract of the Fifteenth Census of the United States," p. 10.

between states such as differences in size and population. Naturally, the greatest numerical increase in secondary school enrollment has been in the large centers of population, in New York, Illinois, Pennsylvania, Ohio, Texas, and California. Each of these states had an increase of over 200,000 students. The largest per cent of increase during these forty years is shown for Oklahoma, Arizona, Idaho, Washington, and New Mexico, each having had an increase of over 10,000 per cent. This is largely due to the meagerness of the 1889-90 enrollment figures for these states, in contrast with older states in which high schools had developed earlier.

Table III-B presents the basic facts regarding increase in population. The greatest numerical increase took place in New York, California, Pennsylvania, Illinois, Texas, and Ohio. The largest per cent of increase is shown for Oklahoma, Idaho, Arizona, California, and Washington.

Table III-C presents a comparison between the per cent of increase in secondary school enrollment and the per cent of increase in population. The states are ranked according to the greatest relative increase. For example, the statistics for Arizona indicate that her high school population increased 37,417 per cent while her general population increased 394 per cent--or 95 times as rapidly. On the other hand, California's secondary school population increased only five times during

those four decades. No doubt differences just as striking as those revealed between states have existed and still exist between various localities within a state.

Actual Enrollment Compared with Potential High School Population

Within the last forty years attendance at a secondary school has become an opportunity enjoyed by approximately half of the nation's adolescent members.

> "Since data are available from the census of 1930 it may be of interest to compare enrollments in these last four years of the public-school system with the census count of persons of ages 15, 16, 17 and 18. No one will contend that all pupils registered in these high-school grades are of these ages. The assertion is ventured that these ages, as nearly as any other four that can be mentioned, correspond to the ages of pupils in these four high-school years. According to the census of 1930 there were in the United States 9,316,670 persons of ages 15-18 inclusive. During the same year there were, as already stated 4,399,422 pupils enrolled in the last four years of the public-school system. The enrollment figure is 47.2 per cent of the census figure."16

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16 "Biennial Survey of Education, 1928-1930", U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 688-9.

If the enrollment in private high schools is added to the public high school enrollment, one finds that the total registration of pupils in the four grades of the secondary school in 1930 was 50.5 per cent of the number of persons, who were from 15 to 18 years of age, inclusive. (See Table I page 7) Thus, it is evident that the high school has potentialities for further quantitative development. In fact, it still has a tremendous task before it. In theory we are rather definitely committed to the idea of universal secondary education,

although in practice we are far from its realization. It is, however, entirely possible that in some communities practically all children of appropriate age are now in high school.

Changes in Clientele

In the beginning of the period under discussion, the secondary school was a class institution and those who attended it were the elite, or select few. With the rapid growth of popular interest in secondary education, there have been decided changes in its clientele. Alexander Inglis in his chapter entitled "Secondary Education" has described the situation thus:

> "In the last decade of the nineteenth century the American secondary school was organized and administered on the basis of the traditional conception that secondary education was suitable and desirable for those only who, because of social and economic status or by virtue of intellectual superiority and ambition, looked forward to the higher professions and to careers of leadership. At that time it was not expected that the average child should attend the high school, but, for the most part, it was taken as a matter of course that he should leave school after receiving a 'common school education.' The high school was still considered as something of an educational luxury to be indulged in only by those whose superior social and economic status permitted opportunity for leisure and 'culture,' or whose capacities and ambitions justified higher training."
>
> "The group of pupils now attending the secondary school constitutes a far more heterogeneous body in capacities, economic or social status, and educational needs than was the secondary school clientele of 1890 or 1900." 17

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17 I. L. Kandel, op. cit., pp. 266 and 253.

The secondary school population has changed from a roughly homogeneous select group to a highly heterogeneous group. In

discussing the effects of compulsory school-attendance laws, Ellwood Cubberley says:

> "One of the results of all this legislation has been to throw, during the past quarter of a century, an entirely new burden on the schools. These laws have brought into the schools not only the truant and the incorrigible, who under former conditions either left early or were expelled, but also many children of the foreign-born who have no aptitude for book learning, and many children of inferior mental qualities who do not profit by ordinary class-room procedure. Still more, they have brought into the school the crippled, tubercular, deaf, epileptic, and blind, as well as the sick, needy, and physically unfit. By steadily raising the age at which children may leave school from ten or twelve up to fourteen and sixteen, our schools have come to contain many children who, having no natural aptitude for study, would at once, unless specially handled, become a nuisance in the school and tend to demoralize schoolroom procedure..... Within the past twenty-five years the whole attitude of the school toward such children has undergone a change, and an attempt has been made to salvage them and turn back to society as many of them as possible, trained for some form of social and personal usefulness." 18

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18 E. P. Cubberley, Public Education in the United States, p. 381.

Many children from the lower social and economic strata of life have been brought into the high school. This statement is confirmed in The New International Year Book for 1932.

> "Dr. Leonard V. Koos of the University of Chicago, who was the associate director in active charge of the survey, (The National Survey of Secondary Education) has summarized the report. He indicates that the increased enrollments in high schools show that 'increasing proportions of children from what are termed the lower economic levels are being given opportunities of education on the secondary level'." 19

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19 p. 250.

At present, the pupils in our high schools more nearly represent a cross-section of the community from which they come, than did the secondary school students of 1890. In the Sixth Yearbook of the Department of Superintendence, we find:

> "The pupils who now attend the high school are drawn no longer from the more or less favored classes of the Republic. They now present, with a fair degree of completeness, a cross-section of our American society. Recent studies have shown that although in the larger centers of population the high school still exercises some degree of selection, in the smaller places--especially in villages and rural districts--the student body in the high school is almost completely representative of the entire community." 20

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20 p. 42.

In 1922, George Counts made a careful study of the character of the high school population. Parental occupations, family influences, the immigrant, and the negro were studied. He summarized his findings as follows:

> "Thus we may conclude that, while the public high school is still a class institution in a very real sense, yet the great increase in the secondary-school population of the last forty years marks a considerable advance toward the democratization of secondary education.....In view of the foregoing analysis it is clear that we in America have not abandoned in practice the selective principle in secondary education, even though we have established a free public high school in almost every community in the country." 21

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21 G. S. Counts, The Selective Character of American Secondary Education, pp. 140-1.

While the secondary school of today is a less selective institution than it was formerly, it is still to some extent selective in character.

> "In spite of our declarations of the idea that secondary education should be furnished to all normal adolescents, and in spite of laudable progress that has been made in extending opportunity, it still remains highly selective. Several careful researches show that the children of the higher social and economic classes continue in high schools longer and in greater proportionate numbers than do those from less fortunate circumstances." 22

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22 T. H. Briggs, The Inglis Lecture, 1930, "The Great Investment," p. 130.

The private secondary school is, on the whole, more selected than the public high school, the former having an intellectually superior group.

> "All of these reports and many others show that private schools are attracting a very superior type of intellect. They are dealing essentially with superior children and their educational problems are, therefore, somewhat different from those confronting the public high school."

> "As in the elementary school, the high schools vary very much in the average intelligence of their pupils. The highest average intelligence seems to be found in the private schools and the lowest in the rural public high schools." 23

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23 R. Pintner, Intelligence Testing, pp. 281 and 289.

This is in accordance with what George Counts found in 1922; namely, that the private secondary schools surveyed were more selected than the public high schools.

> "While 29.1 per cent of all the students in the public high schools come from the laboring classes, only a negligible proportion of those in these private schools are from this source. Thus, while public secondary education in the United States is still highly selective, it is certainly much less so than private. And, assuming that these private schools do give us a relatively reliable picture of the social composition of our secondary-school population of a few generations ago, it is clear that we have traveled a considerable distance from the conception of second-

ary education as class education." 24

24 G. S. Counts, The Selective Character of American Secondary Education, p. 139.

Thus we see that while the secondary school of today is still selective, and the private school is more so than the public school, generally speaking, the secondary school is less selective than it was in 1890. However, a still further extension of educational opportunities is obviously necessary.

Holding Power of the High School and Distribution of Pupils in the Four High School Grades

We have already said that in 1930 approximately 50 per cent of all persons of high school age (15 to 18 years inclusive) were in high school. (See page 17) Table IV presents a comparison between the number of persons 15-19 years inclusive who were attending school in 1890 and 1930. This shows

TABLE IV

Increase in Number of Persons 15-19 Years Inclusive Who Were Attending School in 1890 and 1930

Year	Total Number of Persons	Number of Persons Attending School	Per cent of Persons Attending School of Total Persons
1890	6,557,563	2,155,141	32.86
1930	11,552,115	5,778,748	50.02

The 1890 figures were taken from Compendium of the Eleventh Census: 1890 Part III, p. 268. The 1930 figures were compiled from Abstract of the Fifteenth Census of the U. S. 1930, p. 262.

an increase of 17.16 per cent in this age group during those forty years. These data are valuable, for they show a decided increase in the "holding power" of the high school since 1890.

While Table IV indicates the trend since 1890, a closer examination of the 1930 figures is not entirely gratifying. A rapid decrease for each age from twelve years up to nineteen years of age took place. Table V shows the total population at each age 12-19 years inclusive and the number and per cent attending school. Notice the rapid decline from 97.1 per cent

TABLE V

Total Population at Each Age 12-19 Years Inclusive Together with the Number and Percent Attending School in 1930

Age	Total Population at each Age	Number at Each Age Attending School	Percent at Each Age Attending School
12 years ...	2,480,123	2,408,623	97.1
13 years ...	2,322,327	2,242,053	96.5
14 years ...	2,382,385	2,212,825	92.9
15 years ...	2,295,699	1,943,553	84.7
16 years ...	2,367,315	1,569,839	66.3
17 years ...	2,295,822	1,100,018	47.9
18 years ...	2,357,834	723,524	30.7
19 years ...	2,235,445	441,814	19.8
Total ...	18,736,950	12,642,249	67.5

Abstract of the Fifteenth Census of the U.S. 1930, p. 262

for the twelve year old group to 30.7 per cent for the eighteen year group, and 19.8 per cent for the nineteen year group. The total indicates that 67.5 per cent of all children ages 12-19 years inclusive attended school in 1930. There was a drop of

18 per cent between ages fifteen and sixteen; 19 per cent between sixteen and seventeen, and 17 per cent between years seventeen and eighteen. Notwithstanding the progress that has been made in recent years, millions of our youth are not in school. Of the fifteen year group alone, over one-third million are out of school. It would be interesting to know how many of them are regularly employed in industry. Obviously, the figures in the two foregoing tables indicate that the rate of elimination in the upper age groups is still high.

The next table, Table VI, indicates a distribution of pupils in the last four years of public and private secondary schools for 1910, 1920, and 1930. No data for 1890 or 1900 are available. This table indicates that the enrollment in the ninth, tenth, eleventh, and twelfth grade were 42.1, 27.1, 18.2, 12.6 per cent respectively during 1910. A more favorable distribution is found in 1920 and 1930. The Sixth Yearbook of the Department of Superintendence, describes the matter thus: "The rate of elimination in high school is still high. Of those who enter high school approximately one in every three does not reach the second year or tenth grade, and less than half of those who enter get as far as the fourth year, while a considerably smaller percent graduates." 25

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25 p. 13.

Table VI on page 25 bears out the above statement. Another interpretation of Table VI is that approximately two-thirds of all high school pupils are found in the first two years of the four-year high school course. Less than one-sixth of all

TABLE VI

Distribution of Pupils in the Last Four Years of Public and Private Secondary Schools 1910-1930

Public High Schools	1910	1920	1930
Pupils in first year	392,505	916,642	1,626,823
Per cent of total	42.9	41.7	37.0
Pupils in second year	247,936	575,950	1,192,185
Per cent of total	27.1	26.2	27.1
Pupils in third year	163,176	396,242	879,525
Per cent of total	17.8	18.0	20.0
Pupils in fourth year	111,444	310,555	700,889
Per cent of total	12.2	14.1	15.9
	915,061	2,199,389	4,399,422
Graduates	111,363	230,902	591,719
Per cent of total	12.2	10.5	13.4
Private Secondary Schools	**1910**	**1920**	**1930**
Pupils in first year	37,775	61,358	93,365
Per cent of total	35.2	36.1	31.3
Pupils in second year	29,136	45,649	79,176
Per cent of total	27.1	26.8	26.5
Pupils in third year	22,693	35,205	65,849
Per cent of total	21.2	20.5	22.1
Pupils in fourth year	17,674	28,189	59,364
Per cent of total	16.5	16.6	19.9
	107,278	170,401	297,754
Unclassified students	10,122	13,752	11,298
	117,400	184,153	309,052
Graduates	14,409	24,166	51,447
Per cent of classified students	13.4	14.2	17.3
All Secondary Schools (Combined figures)	**1910**	**1920**	**1930**
Pupils in first year	430,280	978,000	1,720,188
Per cent of total	42.1	41.3	36.6
Pupils in second year	277,072	621,599	1,271,361
Per cent of total	27.1	26.2	27.1
Pupils in third year	185,869	431,447	945,374
Per cent of total	18.2	18.2	20.1
Pupils in fourth year	129,118	338,744	760,253
Per cent of total	12.6	14.3	16.2
	1,022,339	2,369,790	4,697,176
Graduates	125,772	255,068	643,166
Per cent of total	12.3	10.8	13.7

Distribution was compiled from figures taken from "Biennial Survey of Education, 1928-1930," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 15, 693, and 785. Data of graduates were taken from Table I (See page 7).

pupils are found in the fourth year. A comparison of the public and private schools reveals the fact that the latter has a more favorable ratio in the upper grades. Approximately 58 per cent is in the first two grades and 20 per cent in the fourth year.

The fact that the high school population has been growing, affects this distribution, somewhat unfavorably. This may be over come by tracing particular classes through the four high school years. Briefly, the trend is indicated between 1908 and 1928 as follows: the per cent of first-year pupils reaching the fourth year was 30.9 in 1908 and 53.5 in 1928. The survival rates have increased from less than one-third in 1908 to over one-half in 1928. 26

26 "Statistics of Public High Schools 1927-1928," U. S. Office of Education, Bulletin, 1929, No. 35, p. 20.

Table VII, on the next page shows the enrollment of the four high school grades, together with the per cent of increase in each, from 1910 to 1930. In 1930 there were 1,234,318 more freshmen enrolled in the public high schools than in 1910, an increase of 314.5 per cent. The sophomore, junior, and senior classes increased 380.8, 439.0, and 528.9 per cent respectively. Figures for private schools reveal a similar trend. The increased survival of students is shown by the growing percentages of secondary pupils registered in the senior class.

TABLE VII

Per cent of Increase in Each of the Upper Four High School Grades of Public and Private Secondary Schools 1910-1930

Public Schools	1910	1930	Increase	Per cent of Increase
First year	392,505	1,626,823	1,234,318	314.5
Second year	247,936	1,192,185	944,249	380.8
Third year	163,176	879,525	716,349	439.0
Fourth year	111,444	700,889	589,445	528.9
Totals	915,061	4,399,422	3,484,361	380.8
Private Schools	1910	1930	Increase	Per cent of Increase
First year	37,775	93,365	55,590	147.2
Second year	29,136	79,176	50,040	171.7
Third year	22,693	65,849	43,156	190.2
Fourth year	17,674	59,364	41,690	235.9
Totals	107,278	297,754	190,476	177.6
All High Schools	1910	1930	Increase	Per cent of Increase
First year	430,280	1,720,188	1,289,908	299.8
Second year	277,072	1,271,361	994,289	358.9
Third year	185,869	945,374	759,505	408.6
Fourth year	129,118	760,253	631,135	488.8
Totals	1,022,339	4,697,176	3,674,837	359.5

Data were compiled from figures in Table VI, page 25.

Though the number of students eliminated is still large, nevertheless, there has been a favorable trend during the last forty years.

Distribution of High Schools According to Size of Enrollment

The steady increase in the average size of high schools; i.e. the increase in the average number of students to a school, is a significant feature in the development of secondary education. Table VIII below, indicates this development from 1890 to 1930. It shows that public high schools increased from 80 to 228 students per school; private schools from 58 to 112 students per school. Private schools are on the whole, smaller schools. If we consider the combined figures for all

TABLE VIII

Showing the Increase in the Average Size of Secondary Schools (1890-1930)

		1890	1900	1910	1920	1930
Public Secondary Schools	Schools	2,526	6,005	10,213	14,326	23,930
	Enrolled	202,963	519,251	915,061	2,342,340	5,465,932
	Average per School	80.3	86.5	89.6	163.5	228.4
Private Secondary Schools	Schools	1,632	1,978	1,781	2,093	2,760
	Enrolled	94,931	110,797	117,400	184,153	309,052
	Average per School	58.2	56.0	65.9	88.0	112.0
All Secondary Schools	Schools	4,158	7,983	11,994	16,419	26,690
	Enrolled	297,894	630,048	1,032,461	2,526,493	5,774,984
	Average per School	71.6	78.9	86.1	153.9	216.4

Data were taken from Table I (See page 7.) except the 1920 and 1930 public secondary school enrollment figures, which include the 7th and 8th grade pupils in public high schools. The 1920 figure of enrollment is taken from a letter received from the United States Department of the Interior, Office of Education, in response to my inquiry. The number of pupils in public high schools in 1930 was taken from the "Biennial Survey of Education, 1928-1930," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, p. 688.

high schools we find that in 1890 the average enrollment was about 72 pupils; in 1900, 79; in 1910, 86; in 1920, 154; and in 1930, 216.

It is gratifying to note this trend, even though there are certain limitations to the accuracy of a picture which is portrayed by means of "averages", as in Table VIII, on page 28. The average size is unquestionably affected by mounting enrollments in a relatively small number of large high schools. The "Biennial Survey of Education, 1928-1930," U. S. Office of Education states the following interesting facts:

> In 1930 "4.9 per cent of the total number of public high schools enrolled more than 1,000 pupils each; 38.3 per cent of all the pupils were registered in them. New York City reported the largest high school for each of the last three bienniums. In 1926 the DeWitt Clinton High School had an enrollment of 8,611 pupils; in 1928 the James Monroe High School had a registration of 9,682 pupils; and in 1930 the DeWitt Clinton again became the largest, with an enrollment of 10,059 pupils." 27

27 Bulletin, 1931, No. 20, Vol. 2, p. 687.

Neither do averages show the actual number of schools with very small enrollments. Table IX on the next page shows the numbers and percentages of public high schools by size in 1917-18 and 1929-30. The lower half of Table IX indicates that in 1930 there were 12,007 public high schools with an en-

TABLE IX

Numbers and Percentages of Public High Schools by Size in 1917-18 and 1929-30

Enrollment Groups 1917-18	Number of Schools	Per cent of Total
Fewer than 50	7,042	50.5
51 to 100	3,422	24.5
101 to 200	1,833	13.1
201 to 500	1,022	7.3
Over 500	632	4.5
Totals	13,951	99.9
Enrollment Groups 1929-30	**Number of Schools**	**Per cent of Total**
Fewer than 50	5,943	26.7
51 to 100	6,064	27.3
101 to 200	4,603	20.7
201 to 500	3,111	14.0
501 to 1,000	1,421	6.4
1,001 and more	1,095	4.9
Totals	22,237	100.0

In 1930, only 22,237 out of 23,930 schools reported to the Bureau. Table was taken from "Biennial Survey of Education, 1916-1918," U. S. Bureau of Education, Bulletin, 1920, No. 19, p. 17; and "Biennial Survey of Education, 1928-1930," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, p. 687.

rollment of less than 100 pupils. Schools with an enrollment of fewer than 50 pupils comprised 26.7 per cent of the total number of public high schools in 1930. These facts are very disquieting. Out of the total 22,237 schools reporting to the Office of Education, 54 per cent, or over half of all the public high schools in 1930 had an enrollment of not more than 100 pupils. While no one has scientifically determined what the optimum size of the secondary school should be, it is obvious that certain obstacles to efficient and economical oper-

ation are encountered in the very small school. The Sixth Yearbook of the Department of Superintendence states:

> "The optimum size of school has not been determined as yet by scientific experimentation. The drift appears to be from the smaller to the larger plan of organization. The small school has difficulty in maintaining a sufficient curricular range to minister to all the pupils. Furthermore in those schools where enrolment does not permit of teacher specialization, it is difficult to secure teachers whose equipment is broad enough to qualify them for teaching many subjects adequately. In addition, investigation shows conclusively that high per capita cost characterizes the small school." 28

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28 p. 46.

Larger administrative secondary school units are necessary, particularly in rural districts, in order to establish differentiated programs. On page 89 of the Sixth Yearbook there is a statement of the problem of consolidation. The Department of Superintendence says:

> "Studies relating to the small high school show that most states have not been able to develop a well-coordinated system of 'comprehensive secondary-school opportunity' for pupils living in rural districts. A survey, such as that made in New York by Ferriss, (Emery N. Ferriss, Rural School Survey of New York State, Ithaca, New York, 1922, p. 187) invariably reveals the academic or college preparatory nature of the program of studies of the small school.....The present situation has come about because of the lack of coordination of secondary-school facilities. In the era which has just passed, considerable pressure was exerted to establish a high school wherever the local communities were interested. In several of the states a system of secondary education was developed without any thought of a coordinated program. This rapid development of high schools came prior to the development of good roads and the automobile. In states where the county unit of administration is not in operation, there is difficulty in making adjustments which will bring about a coordination of facilities. States are now confronted with the difficult problem of consolidating many of the

> smaller high schools so that a sufficient number of pupils can be brought together to make possible a differentiated program of studies. This is an extremely difficult task, as the local community once having had a high school, feels that it is 'going back' if the consolidated high school happens to be moved to another point."

While it is very desirable that the extremely small high schools be eliminated, it is encouraging to note that the trend has been in that direction for some years. For while in 1930, we still have 54 per cent of the schools with not more than an enrollment of 100, twelve years earlier, in 1918, 75 per cent had fewer than 100 students. (See Table IX, page 30.) Consolidation and the general increase in enrollment have tended to increase the size of secondary schools.

Coeducation and Segregation of Sexes

Coeducation resulted from economic necessity, according to Julius Sachs who wrote in 1912:

> "No one denies the practical value in the past of the adoption of the coeducational scheme in our schools. Sparsely settled communities throughout the land offered such educational opportunities as their slender resources permitted to both sexes alike; it was not the question whether this was most beneficial to each of the sexes; the financial stress determined the alternative--this or nothing. Economic considerations, and only these, initiated the coeducational school. The argumentation that what was of necessity done, was also the ideal thing to do, was an afterthought." 29

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29 J. Sachs, The American Secondary School, pp. 187-8.

Whether we approve of schools for girls only and schools for boys only, or whether we approve of coeducation, the fact is that the latter has gained over segregated high schools since

1900, when according to Table X, below, 88.4 per cent of all secondary schools were coeducational institutions, and 11.6 per cent were segregated schools. In 1930, 94.4 per cent of all secondary schools were coeducational and 5.7 segregated.

TABLE X

The Enrollment and Number of Schools for Boys Only, for Girls Only, and Coeducational High Schools in 1900 and 1930

	Public		Private		All High Schools	
	1900	1930	1900	1930	1900	1930
Schools for Boys Only	41	70	327	504	368	574
Schools for Girls Only	31	59	530	873	561	932
Coeducational Schools	5,933	23,801	1,121	1,383	7,054	25,184
Total....	6,005	23,930	1,978	2,760	7,983	26,690
Percentages of Total	.7	.3	16.5	18.3	4.6	2.2
	.5	.2	26.8	31.6	7.0	3.5
	98.8	99.5	56.7	50.1	88.4	94.4
Enrollment in Schools for Boys Only	16,680	210,846	21,726	88,137	38,406	298,983
Enrollment in Schools for Girls Only	16,093	94,657	24,199	91,605	40,292	186,262
Enrollment in Coeducational High Schools	486,478	4,093,919	64,872	129,310	551,350	4,223,229
Total....	519,251	4,399,422	110,797	309,052	630,048	4,708,474
Percentages of Total	3.2	4.8	19.6	28.5	6.1	6.4
	3.1	2.2	21.8	29.6	6.4	4.0
	93.7	93.1	58.6	41.8	87.5	89.7

The 1900 figures were taken from Report of the Commissioner of Education, 1899-1900, Vol. 2, p. 2436. All of the 1930 figures, except the enrollment figures for public high schools came from the

"Biennial Survey of Education, 1928-1930," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 698 and 784. Information regarding the 1930 enrollments came directly from the U. S. Department of the Interior, Office of Education in response to inquiry.

The enrollment figures show a similar trend. In 1900, 87.5 and in 1930, 89.7 per cent of the students were in coeducational schools; only 12.5 in 1900 and 10.4 per cent in 1930 were in schools for boys only or girls only.

Table X shows that there is much more segregation of the sexes in private schools than in public schools. In 1930, of the private schools reporting to the Office of Education in Washington, 18.3 per cent were schools for boys, 31.6 per cent were schools for girls only, and 50.1 per cent were open to both sexes. This is a striking contrast to the public schools in the same year, when only one half of one per cent of public high schools were segregated schools. The trend is in the direction of coeducational public schools and segregated private schools.

Dominance of the Public High School

Here will be indicated the relative importance of public and private secondary schools and enrollments. Table XI on the next page shows that the number of private schools reporting to the Office of Education increased from 1,632 in 1890 to 2,760 in 1930. The numbers of students reported for these schools increased from 94,931 to 309,052. These represent increases of 69.1 per cent and 225.6 per cent, respectively. They are large increases for a period of forty years, but they

TABLE XI

The Relative Importance of Public and Private Secondary Schools and Enrollments, 1890-1930

Year	Number of Schools		Per cent of Schools		Enrollment in Schools		Per cent in Schools	
	Public	Private	Public	Private	Public	Private	Public	Private
1890	2,526	1,632	60.8	39.2	202,963	94,931	68.1	31.9
1900	6,005	1,978	75.2	24.8	519,251	110,797	82.4	17.6
1910	10,213	1,781	85.2	14.8	915,061	117,400	88.6	11.4
1920	14,326	2,093	87.3	12.7	2,199,389	184,153	92.3	7.7
1930	23,930	2,760	89.7	10.3	4,399,422	309,052	93.4	6.6

Percentages were computed from data in Table I on page 7.

are far smaller than those for public schools. Public schools in the same period increased in number from 2,526 to 23,930 and the students enrolled increased from 202,963 to 4,399,422. These are increases of 847.3 per cent and 2067.6 per cent respectively. Thus, although private schools grew rapidly, the development of public schools was so much more rapid that relatively the private schools as a group have lost ground.

In 1890, approximately 61 per cent of all secondary schools were public schools; 39 per cent were private schools. An increase in the relative importance of public schools and a decrease in the relative importance of the non-public schools between 1890-1930 is shown. In 1930 the ratio was about 9:1 in favor of the public secondary school. The enrollment figures indicate the same general tendency, but to an even more marked degree. Recent years have been increasingly an era of public secondary education. The dominance of the public high school is an established fact. The trend has been toward increasing predominance of public secondary education.

Religious Denominational and Nonsectarian Private High Schools

In 1930 reports were received by the Office of Education from 2,760 private high schools and academies having an enrollment of 309,052 pupils. (See Table I, page 7.) In Table XII, below and on the next page, the figure for all private schools is given as 2,813 and the enrollment as 334,593. The latter

TABLE XII

Religious Denominational and Nonsectarian Private High Schools and Academies 1900-1930

	1930	1920	1910	1900
Roman Catholic:				
Students	201,495	76,054	30,124	15,872
Instructors	11,657	5,901	3,486	1,910
Schools	1,648	976	630	361
Presbyterian:				
Students	8,016	5,267	3,570	4,574
Instructors	498	490	300	402
Schools	71	64	67	93
Episcopal:				
Students	7,968	7,761	4,788	5,145
Instructors	951	931	658	714
Schools	97	91	71	98
Methodist:				
Students	7,632	7,902	6,007	5,522
Instructors	550	523	420	324
Schools	62	71	67	65
Baptist:				
Students	7,300	10,903	6,983	7,173
Instructors	460	617	415	529
Schools	66	107	74	96
Seventh-day Adventist:				
Students	4,866	1,992	---	---
Instructors	383	145	---	---
Schools	74	22	---	---

	1930	1920	1910	1900
Lutheran:				
Students	3,381	4,005	3,339	2,032
Instructors	247	326	229	175
Schools	33	47	42	32
Friends:				
Students	2,964	2,324	2,243	3,428
Instructors	307	212	229	296
Schools	25	28	48	55
Congregational:				
Students	2,075	2,348	2,322	2,671
Instructors	195	210	198	242
Schools	21	29	35	51
Methodist Episcopal South:				
Students	1,261	2,200	2,281	2,863
Instructors	92	114	129	154
Schools	15	21	25	38
Latter-day Saints:				
Students	1,144	3,959	---	---
Instructors	58	175	---	---
Schools	2	12	---	---
Other Denominations:				
Students	5,984	5,304	9,490	4,344
Instructors	378	413	682	328
Schools	52	59	84	56
Total Denominational:				
Students	254,086	130,019	71,147	53,624
Instructors	15,776	10,057	6,746	5,074
Schools	2,166	1,527	1,143	945
Nonsectarian:				
Students	80,507	54,134	46,253	57,173
Instructors	6,775	4,889	4,400	5,043
Schools	647	566	638	1,033
Total of All:				
Students	334,593	184,153	117,400	110,797
Instructors	22,551	14,946	11,146	10,117
Schools	2,813	2,093	1,781	1,978

1900 data were compiled from figures in Report of the Commissioner of Education 1899-1900, Vol. 2, p. 2126; 1910 from Report of the Commissioner of Education for the Year Ended June 30, 1910, Vol. 2, pp. 1160 and 1162; 1920 from "Biennial Survey of Education, 1918-20," U. S. Bureau of Education, Bulletin, 1923, No. 29, pp. 538-9; 1930 from "Biennial Survey of Education, 1928-30," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 786-7.

figures represent the United States and outlying parts. No data are available prior to 1895. In this table the denominational schools are arranged in order of their importance, according to the 1930 enrollment figures.

The rapid increase in Catholic high schools is very apparent. If we compute the percentages of increase of Catholic schools and enrollments, they compare very favorably with public high schools. Roman Catholic secondary schools increased 357 per cent from 1900 to 1930, while public high schools increased 299 per cent. (Data were computed from Table XII, page 36, and Table I, page 7.) Roman Catholic enrollments increased 1169 per cent while the number of public high school students increased 747 per cent from 1900 to 1930. The low figures for Catholic high schools and enrollments in 1900 causes the percentage of increase between 1900 and 1930 to be particularly large. Nevertheless, it is obvious that the reason the percentages of increase for private schools and enrollments, as a whole, are so low is because there has been little or no growth (in some cases actual decrease) for other types of private schools.

Table XIII summarizes the data found in Table XII on pages 36 and 37. There is evident in Table XIII on the next page, the fact that during these thirty years the Roman Catholic schools have increased from 18.3 per cent of the total private secondary schools to 58.6 per cent, while the other denominational as well as the nonsectarian schools have declined from 29.5 to 18.4 per cent and 52.2 to 23 per cent, respectively. Over three-fourths of the high schools in 1930 were under some

TABLE XIII

Numbers and Percentages of Roman Catholic, Other Denominational, and Nonsectarian Private Schools in 1900 and 1930, and Numbers and Percentages of Students Enrolled in These Schools

Group	Schools				Students			
	1900		1930		1900		1930	
	Numbers	Percentages	Numbers	Percentages	Numbers	Percentages	Numbers	Percentages
Roman Catholic	361	18.3	1,648	58.6	15,872	14.3	201,495	60.2
Other Denominational	584	29.5	518	18.4	37,752	34.1	52,591	15.7
Nonsectarian	1,033	52.2	647	23.0	57,173	51.6	80,507	24.1
Totals	1,978		2,813		110,797		334,593	

type of denominational control; more than one-half of them were Roman Catholic in affiliation. The same trend is found in the enrollment figures. The number of Catholic schools has increased actually and relatively while the other denominational and nonsectarian schools have declined relatively, while actually they appear not to have changed materially during the last thirty years. The number of schools has declined, but the enrollment has increased in number; however, as groups they have lost ground.

Figure 1 on the next page is a diagramatical representation of Table XIII. It shows clearly the relative increase in Catholic schools and enrollments and the relative decrease in other denominational and nonsectarian private schools.

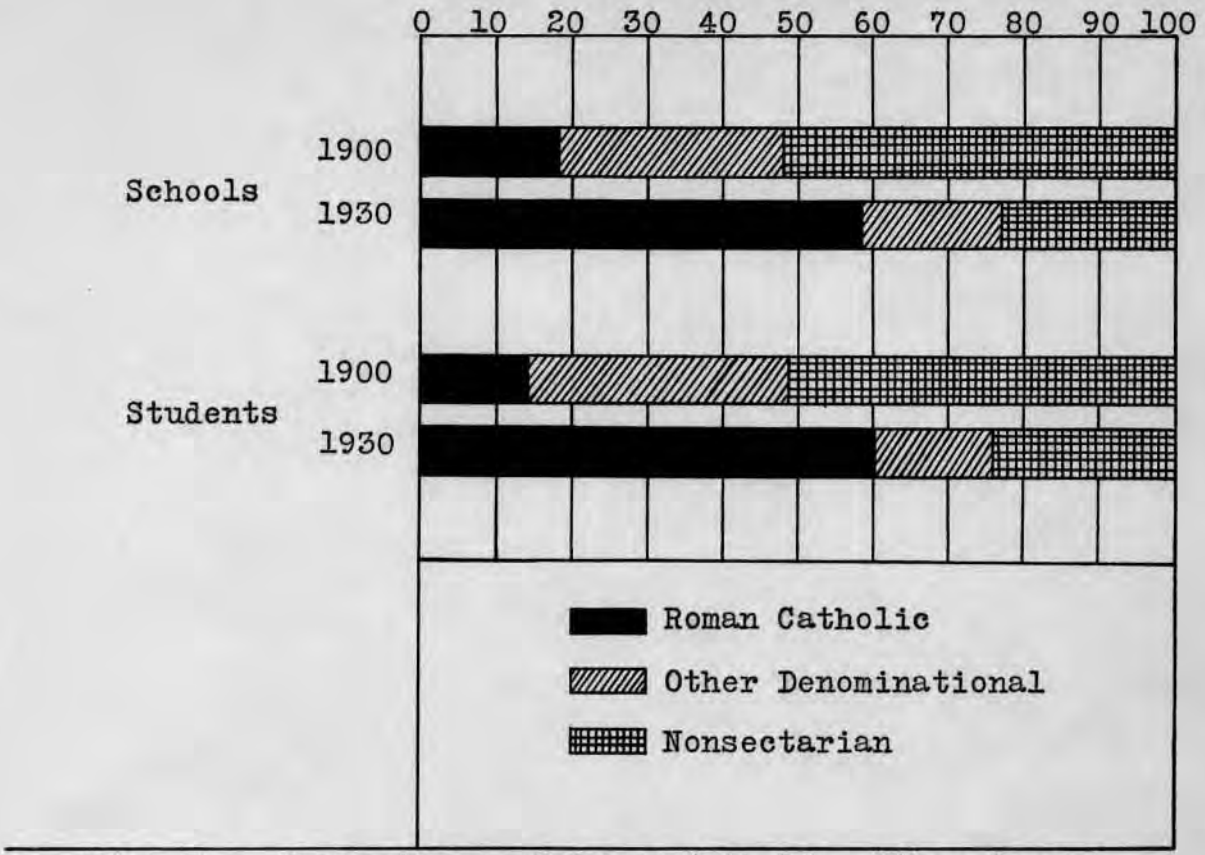

Fig. 1. - Percentages of Roman Catholic, Other denominational, and Nonsectarian private schools in 1900 and 1930, and percentages of students enrolled in these schools.

The trend in Catholic schools would be even more outstanding if all of the Catholic schools had reported to the U. S. Office of Education. Francis Crowley says:

> "In 1915, the National Catholic Educational Association conducted a survey of Catholic secondary schools which showed that there were 1,276 schools in operation at that time. By 1926 this number had increased to 2,242, an increase of 966 schools, approximately 76 per cent, in the course of 11 years. The number of teachers increased from 2,505 in 1915 to 13,242 in 1926, an increase of 10,737, or 400 per cent. In 1915 the number of pupils enrolled was 74,538. By 1926 the enrollment had increased to 204,815--130,277 more than in 1915, an increase of 175 per cent in a little more than a decade. Between 1915 and 1926, then, the number of schools increased by 966, or 76 per cent; the number of teachers by 10,737 or 400 per

cent, and the number of students by 130,277, or 175 per cent." 30

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30 F. M. Crowley, "Rapid Development of Catholic High Schools in Past Decade," School Life, Vol. 14, p. 112, February, 1929.

The importance of the other private schools may also be understated. Leonard Koos criticized the use of figures from the U. S. Department as follows:

> "Readers who have had experience in securing reports on matters like those represented here will know that these percentages may be somewhat in error. This is because of the failure of schools to return the blanks submitted. These readers will know also that larger proportions of private schools than of public schools will fail to send in reports, the explanation being that they are less accustomed than public schools to make reports. It is certain that the proportions of private schools and of students enrolled in them were actually somewhat larger than as reported." 31

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31 L. V. Koos, Private and Public Secondary Education, p. 3.

While this is true of all of the figures presented in this chapter and of the comparisons made, nevertheless, there can be no denying the approximate accuracy of the proportions and the truth of the general trends.

Francis Crowley gives a summary statement of the development of Catholic secondary education.

> "Facilities for secondary education under Catholic auspices expanded rapidly during the latter half of the nineteenth century. Many academies for girls were established by the sisterhoods, and institutions devoted exclusively to the education of boys were organized by the Brothers of the Holy Cross, the Brothers of the Christian Schools, and the Xaverian Brothers. Secondary education was also furnished in connection with men's colleges or in separate institutions by the Jesuits, the Benedictines, the Franciscans, and the Dominicans. Although parochial high schools have done much to care for the large

number of students seeking secondary education under Catholic auspices, the real credit for the solution of the problem must unquestionably be given to the various religious orders. They have done a great deal to bridge the gap between the Catholic elementary school and the Catholic college." 32

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32 F. M. Crowley, op. cit., p. 112.

The tremendous growth of Catholic secondary education was a result of the large number of Catholic immigrants who came to this country after 1890.

> "Then after 1890 the old immigration of northwestern Europe gave way to the new immigration of southern and eastern Europe. New races, nationalities, and cultures came to fuse with the Nordic. Between 1899 and 1910 alone more than 8,500,000 Slavs, Italians, and Jews came to carry on the industries of the growing cities." 33

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33 H. Rugg, Culture and Education in America, pp. 46-7.

Types of High Schools

It is difficult to make a general statement regarding the types of American high schools. There are so many varieties and exceptions to the rule that there really is no such thing as a typical American high school. Ellwood Cubberley divides the group into seven divisions as follows:

> "We have to-day: (1) The general culture high school, being the successor, though now greatly modified both in subject-matter and spirit, of the original general high school. (2) The cosmopolitan high school, offering in one building, or group of buildings, many or all of the different courses of study. (3) The manual-training high school, first begun as a part of our public school system in 1884, but now more commonly developed in connection with (2). (4) The household-arts high school, usually provided for as a course under (2) or (3), but some-

times organized separately. (5) The commercial high school, for training for business life. Begun as a separate course in many high schools in the seventies. Since 1898 a number of commercial high schools have been organized in the more important of our commercial cities. (6) The agricultural high school, first established in connection with the University of Minnesota, in 1888. By 1898 there were ten such schools in the United States. Since 1900 the development of the agricultural high schools has been more rapid than has been the case with any other previous type of high school. By 1909 there were 60 separate agricultural high schools. The number of high schools to-day offering agricultural instruction is probably in excess of one thousand. (7) Trade and industrial schools, of high-school grade, for vocational training. This represents our most recent development. With national aid for such schools and courses, this type of school promises to increase very rapidly." 34

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34 E. P. Cubberley, Public Education in the United States, p. 410.

Frank Smith summarizes the development of the manual training high schools as follows:

> "A belief that such subjects (as manual training) keep up interest in school work and tempt pupils to prolong their education, added to a confidence in the training-value and practical value of the new subject, led to the foundation of the manual training high school, which has had a striking growth in some of our large cities. The idea was too large to be worked out adequately as an attachment of existing high schools. It required a separate school to give a typical development.....The separate school had a place, to show the full meaning and value of the subject and to give a training needed by certain classes in our highly differentiated communities. In effect it brought into school life a new culture curriculum, of great possibilities or very narrow possibilities, according to the spirit in which it was carried out." 35

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35 F. W. Smith, The High School, p. 336.

Commercial pursuits also demanded specialized training. Business required more than a technical business curriculum,

so the high schools of commerce came into being as specialized schools. W. T. Woody indicates their rise in his chapter "Vocational Education", as follows:

> "The whole idea of commercial education began to be better defined after 1880, and particularly after 1890. Leaders were needed.....Edmund J. James in 1892 advocated the creation of separate commercial high schools, adducing from Germany, Austria, France, and other countries many proofs of our backwardness. In the present century a number of such schools have been established. Among the most noteworthy of the separate commercial high schools are those at San Francisco, Washington, Louisville, Boston, Brooklyn, New York City, Cleveland, and Springfield." 36

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36 I. L. Kandel, op. cit., pp. 281-2.

Agriculture, which had long been looked upon as an uncultured vocation, was improved through the scientific training which the agricultural high schools provided. W. T. Woody, in the above mentioned chapter, makes the following statement:

> "State action was taken by Wisconsin (in 1901) when an act was passed providing free county secondary schools of agriculture and household economy. The course was to consist of two years' work at the beginning; and each school so established was granted $2500 as a state subsidy. Since 1900 the number of agricultural high schools of various forms has increased rapidly. In Wisconsin there are county agricultural high schools similar to that mentioned above; in the South, Alabama established schools for large areas, and the same type has also found a place in Georgia, Virginia, California, Minnesota, Oklahoma, Massachusetts, and New York; in many states secondary schools have also been established in conjunction with agricultural colleges and state universities." 37

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37 Ibid., p. 284.

Vacation and evening high schools have grown vastly in importance, because they provide facilities to meet definite

needs. Elmer Brown says:

> "The evening high school, has been established in a number of our larger cities. Schools of this sort have offered very elastic courses of study, suited to the varied needs of their clientage, and have been a great boon to many who have been obliged to work by day after the completion of an elementary school course." 38

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38 E. E. Brown, The Making of Our Middle Schools, p. 401.

Equipment

The equipment of secondary schools has undergone considerable change and improvement since the late nineteenth century. J. F. Messenger says:

> "The equipment of high schools has made great advance. The laboratories and libraries compare favorably with those found in many colleges of the nineteenth century. The sciences have their separate laboratories and the home economics, manual training, and agriculture departments usually possess equipment of considerable value." 39

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39 J. F. Messenger, An Interpretative History of Education, p. 359.

Table XIV on the next page shows that the value of grounds, buildings, and apparatus for public high schools increased from $49,171,542 in 1890 to $1,713,073,864 in 1930, or approximately 35 times. The private schools increased from $37,521,576 to $625,672,000 or approximately 17 times.

The average value per school increased greatly between 1910 and 1930. This is a correlary of the general increase in schools and the growing size of the average school. It is

TABLE XIV

Showing the Value of Grounds, Buildings, and Apparatus for Secondary Schools in 1890 - 1910 - 1930

Public	1890	1910	1930
Value of grounds, buildings, and apparatus	$49,171,542	$231,329,503	$1,713,073,864
Average value per school	19,466	22,650	71,587
Average value per student	242.27	252.80	313.41
Private	**1890**	**1910**	**1930**
Value of grounds, buildings, and apparatus	$37,521,576	$77,279,517	$625,672,000
Average value per school	22,991	43,391	226,693
Average value per student	395.25	658.26	2,024.49

Figures representing the value of grounds, buildings, and apparatus were taken from the Report of the Commissioner of Education 1889-90, Vol. 2, pp. 1389 and 1487; the Report of the Commissioner of Education for the Year Ended June 30, 1910, Vol. 2, pp. 1151 and 1164; the U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 776 and 788. Averages were computed on figures for schools and enrollments found in Table VIII, on page 28. The 1930 public school figures include the junior high schools.

interesting to note that the average value per school is greater for private schools than public schools in each of the

three periods presented, in spite of the fact that the private schools are on the whole smaller schools. (See Table VIII.)

The average value per student shows an increase in both public and private groups, but the latter apparently have decided advantages over the public schools in the matter of equipment.

For the last forty years the trend has been definitely in the direction of costlier buildings and apparatus. As far as equipment is essential to the process of education, the high school student today has advantages which were unheard of in 1890. The scientific study of buildings and their construction has added to the value of buildings as well as to the cost.

Financing Secondary Education

The trends discussed in this chapter give some insight into the problem of financing secondary education. These trends have been accompanied by increased and increasing costs. H. C. Morrison says:

> "So long as the enrollment in the four year high school and private academy did not exceed about 2 per cent of the total--as was the case during probably the whole of the nineteenth century, and certainly during the period of the gathering of statistics which began in 1870--instead of 15 per cent or 16 per cent as is the case today and perhaps 28 per cent at saturation point, no serious fiscal problem was created. But when the high school began rapidly to expand in proportion to the total enrollment, the most expensive element in the budget began to expand and the cost of the tax-supported system began to increase very rapidly. A good deal of disquietude found expression; but, after all, the period during which expansion was taking place was also one of unprecendented economic activ-

ity and expansion, marred by an acute but shortlived panic in 1907 and no other major depression until that which was precipitated in the fall of 1929. There was grumbling at the increasing burden of taxation, but taxes could be paid; and, after all, grumbling over taxes is an emotional expression of inconceivable antiquity. Expenditure went merrily on, and it began to seem as if a town which could not boast of its 'million-dollar high school' would have much to explain." 40

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40 H. C. Morrison, The Inglis Lecture, 1933, "The Evolving Common School," pp. 22-4.

A comparison of the cost of secondary education in 1890 and 1920 is given by F. H. Swift in his chapter "Public School Finance" as follows:

"In 1918 the average cost in the United States per elementary school pupil enrolled was $31.65; per high school pupil enrolled, $84.48. In 1920 the expenditure per elementary pupil and per high school pupil was approximately double that of the year 1918, being in fact $64.03 per elementary pupil enrolled, and $158.21 per high school pupil enrolled. From these facts we see that it costs approximately two and one half times as much to educate pupils attending high schools as pupils attending elementary schools. These facts become of great significance in attempting to determine the reasons for mounting costs in education when we discover that seven times as large a proportion of our total population was attending high school in 1920 as was attending high school in 1890.....Finally, we discover that, whereas in 1890 the United States was spending $4,759,065 for public high schools, in 1920 the expenditure on public high schools, excluding all cities of less than 10,000 population, and excluding also costs of administration, capital outlay, and debt service, was $66,024,307." 41

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41 I. L. Kandel, op. cit., pp. 203-4.

On pages 201-5 of the same chapter, F. H. Swift points out the causes for increased high school costs, when he says:

"These vast increases in school expenditure are the result of the interaction of many factors: the

rapid increase in school population, the lengthening of the legal school year, the assignment by the community to the school of a larger and larger number of functions resulting in the introduction of many new types of studies and activities.....To these must be added three other causes: a steady rise in the educational and professional qualifications demanded of public school teachers, which necessitates a steady increase in the salaries paid; a similar continual rise in building and equipment standards; and a final cause--one which is frequently overlooked by the public--the depreciation of the purchasing power of the dollar."

In 1922, G. S. Counts forecasted expenditures as follows:

"Undoubtedly a further extension of secondary education will mean greater educational costs. The education of all children of high-school age would probably involve four times the present expenditure, with no improvement in the quality of instruction. This statement of course disregards those economies that would be realized in the small high schools through a more intensive use of the present teaching staff and material equipment. This would result in an increase in the cost of secondary education to a figure somewhere between one-half and three-quarters of a billion of dollars." 42

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42 G. S. Counts, The Selective Character of American Secondary Education, p. 150.

The trend being in the direction of increased expenditures, it is necessary for us to reconsider our sources of income. Our antiquated tax methods need to be revised. T. H. Briggs, in "The Inglis Lecture, 1930" suggests national support.

"The great variations in economic wealth, in the proportion of children to adults, in the sparseness of population, and in attitudes towards education for all youth make it imperative that the units of taxation be greatly enlarged, that the necessary money be taken from wherever the wealth may be and expended equitably where it is needed. Logic and need point to a far larger participation of the national government in the support of schools than has ordinarily been proposed." 43

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43 T. H. Briggs, op. cit., pp. 61-2.

Summary

Social and economic changes since 1890 have resulted in an extension of the quantity and quality of training necessary for good citizenship and social efficiency. Anti-child-labor legislation and compulsory school attendance laws have increased secondary school opportunities, especially for the children of the lower economic classes.

From 1890 to 1930 there was a colossal development in the number of secondary schools, attendance thereat, and in the number of graduates. High schools increased 542 per cent, and enrollments increased 1481 per cent, the greatest growth having taken place since 1920. A substantial increase in post-graduate enrollment indicates a growing demand for educational opportunities beyond the twelfth grade.

It must not be assumed that secondary school facilities have been uniformly developed--on the contrary, great inequalities in educational opportunity exist between states and between localities within a state. The greatest numerical increase in enrollment has been in the large centers of population, while the greatest per cent of increase during these forty years is found in the places where the 1890 figures were very small. A comparison of the per cent of increase in secondary school enrollment with the per cent of increase in population reveals vast inequalities between states.

The trend has been toward bringing an ever larger percentage of boys and girls of high school age into school, so that attendance at a secondary school is now enjoyed by approximately half of the nation's adolescent members. The secondary

school population of 1930 was approximately 50 per cent of the number of persons who were from 15 to 18 years of age, inclusive. Thus, the high school has considerable potentialities for further quantitative development.

The high school of today is still to some extent selective, and the private school is more so than the public school, but generally speaking, secondary schools are far less selective than they were in 1890. During the last four decades the secondary school has changed from a class institution with a roughly homogeneous select population to a more democratic institution with a highly heterogeneous student body. The truant, the incorrigible, and those with little aptitude for book learning have been brought into the high school, and the latter aims to salvage and fit them for personal and social usefulness.

The distribution of pupils in the upper four high school grades indicates an increase in the holding power of the high school; i.e., of the total enrollment, the percentage of pupils registered in the junior year and in the senior year has grown from 18.2 and 12.6 per cent respectively in 1910, to 20.1 and 16.2 per cent in 1930. Notwithstanding the progress that has been made, elimination and retardation in the upper age groups is still high, and millions of our youth are not in school.

Consolidation of small high schools and general growth in enrollment have augmented the size of high schools. In 1890 the average enrollment was about 72 pupils and in 1930, 216 pupils. Mounting registrations in a relatively small number of

large high schools unquestionably affect the average. The biggest secondary school in 1930 was the DeWitt Clinton High School, New York City, with an enrollment of 10,059 pupils. On the other hand, 54 per cent of the schools in 1930 had an enrollment of not more than 100 students, while twelve years earlier, 75 per cent had fewer than 100 pupils.

On the whole, coeducational high schools have gained over segregated high schools, for in 1900, 88.4 per cent and in 1930, 94.4 per cent of all secondary schools were coeducational institutions. However, more segregation of the sexes is found in private than in public high schools, and the general trend has been in the direction of coeducational public schools and segregated private schools.

Although private schools grew rapidly between 1890 and 1930, the development of public high schools was so much more rapid that relatively the private schools as a group have lost ground, for in 1930 the ratio was about 9:1 in favor of public secondary schools. The dominance of the public high school has become an established fact.

In considering the private schools as a group, we find a relative increase in Catholic schools and enrollments, but a relative decline in other denominational and nonsectarian private high schools. The per cent of increase of Catholic secondary schools compares very favorably with public high schools. The reason the percentage of increase for private schools is so low is because there has been little or no growth (in some cases actual decrease) for other types of private secondary schools. The large number of immigrants from south-

eastern Europe since 1900, at least partly explains the enormous increase in Roman Catholic schools.

Demands for specialized training have resulted in new types of secondary schools, so that we now have, not only general culture and cosmopolitan high schools, but also manual-training, household-arts, commercial, agricultural, trade and industrial high schools. There has also been a vast growth in vacation and evening high schools.

Libraries, laboratories, and improved equipment have been added to scientifically constructed, costlier buildings. The average value of grounds, buildings, apparatus per school and per student has immensely increased for both public and private schools, but the latter have decidedly greater advantages in this respect.

Mounting educational costs have resulted from the lengthening of the school year, the increase in enrollment, the rise in building and equipment standards. Higher salaries for teachers, the addition of new studies and activities, and fluctuations in the purchasing power of the dollar have necessitated increased secondary school expenditures which our antiquated tax methods have often inadequately financed.

CHAPTER II

TEACHERS

TEACHERS

In this chapter, the following topics will be of primary significance: number of teachers in secondary schools, distribution of men and women teachers, salaries, supply and demand, the training of high school teachers, instructional organization and teaching combinations, certification standards and hiring requirements. This chapter and subsequent ones will contain only a meager amount of statistics sufficient to show the dominant trends.

Number of Teachers in Secondary Schools

The rapid growth in secondary schools and enrollments during the past four decades was accompanied with an enlargement of the teaching staff. According to Table XV the total number of secondary school teachers in 1890 was 16,329 while in 1930 the total number was 235,320 an increase of 1341 per cent. The public secondary school teachers advanced from

TABLE XV

The Number of Teachers in Public and Private Secondary Schools from 1890 to 1930

Year	Public	Private	Total
1890	9,120	7,209	16,329
1900	20,372	10,117	30,489
1910	41,667	11,146	52,813
1920	97,654	14,946	112,600
1930	213,306	22,014	235,320

Taken from the "Biennial Survey of Education, 1928-1930," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 697 and 784.

9,120 in 1890 to 213,306 in 1930, a growth of 2238 per cent while the private schools increased 205 per cent, or from 7,209 to 22,014 in number. It is to be noted, however, that the per cent of increase in public secondary school teachers is somewhat overestimated because the 1930 and 1920 figures include the number of teachers in junior high schools. It is not possible to determine the number that actually taught in the four upper grades of the high school or to ascertain the number who taught in the seventh and eighth grade of the junior high schools. Many of the teachers divide their time between the seventh, eighth, and ninth grades.

Distribution of Men and Women Teachers

There are more women than men teachers in our high schools. This lack of balance has frequently been called the feminization of secondary education, and has been severely criticized. Many of the undesirable tendencies in secondary education have been called the result of this feminization. The fact that there are more girls than boys in high school, and the withdrawal of boys in large numbers, have been frequently attributed to the scarcity of men teachers in our secondary schools. Julius Sachs, in 1912 made seathing criticism of this tendency. One of his paragraphs reads as follows:

> "Ours is actually a nation, ninety per cent of whose adolescents at least have come to regard knowledge and culture as an essentially feminine accomplishment, because strong men do not seem available or inclined to propagate it. The major part of the instruction is in the hands of women, the attendance in the public high schools shows a higher percentage of girls than boys, energetic male teachers are few; under these circumstances is it

likely that the characteristic note of the high school will be absorbing energy, enlisting to the utmost the participation of all concerned, or will it be attuned to the measure of its prevailing constituency?" 1

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1 J. Sachs, The American Secondary School, pp. 184-5.

Table XVI shows the distribution of men and women secondary school teachers since 1890. It shows that in 1890 in public schools, the per cent of women and men was 60 and 40 respectively. The private schools showed a more desirable ratio,

TABLE XVI

Distribution of Women and Men Teachers in Public and Private Secondary Schools from 1890 to 1930

Year	Type of School	Number of		Total	Per cent of	
		Women	Men		Women	Men
1890	Public	5,472	3,648	9,120	60.0	40.0
	Private	3,937	3,272	7,209	54.6	45.4
		9,409	6,920	16,329	57.6	42.4
1900	Public	10,200	10,172	20,372	50.1	49.9
	Private	5,842	4,275	10,117	57.7	42.3
		16,042	14,447	30,489	52.6	47.4
1910	Public	22,777	18,890	41,667	54.7	45.3
	Private	6,634	4,512	11,146	59.5	40.5
		29,411	23,402	52,813	55.7	44.3
1920	Public	63,258	34,396	97,654	64.8	35.2
	Private	9,248	5,698	14,946	61.9	38.1
		72,506	40,094	112,600	64.4	35.6
1930	Public	138,774	74,532	213,306	65.1	34.9
	Private	13,434	8,580	22,014	61.0	39.0
		152,208	83,112	235,320	64.7	35.3

Numbers of teachers were taken from the "Biennial Survey of Education, 1928-1930," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 697 and 784.

the percentages being 54.6 and 45.4. In 1900 and 1910 the ratio in public schools was more satisfactory than in private schools, while in 1920 and 1930 the private schools had a larger percentage of men teachers than did the public schools.

In figure 2 on the next page, the combined statistics for public and private schools as indicated in Table XVI, on page 57, are presented diagramatically. In 1890, 57.6 per cent of all secondary school teachers were women; 42.4 per cent were men. The most desirable ratio was reached in 1900 when almost half of the teachers were men. The trend since that time has been in the direction of more women and less men proportionately. The fact that the 1920 and 1930 figures include the junior high school teachers accounts for some of the increase of women instructors, as the junior high schools have a larger proportion of women teachers than do the four upper grades of the secondary school.

The reason for the lack of improvement in the ratio between men and women teachers during the last forty years is an economic one. Women have been available at lower salaries, and it is this fact which results in their election by school boards. E. A. Fitzpatrick states the facts thus:

> "A greater number of men would tend to raise the average length of service and make a more stable teaching force. Any effort to change this situation must face the fact that women are willing to teach, ordinarily, for a lower salary; and it is generally true that a women of better personality and better training than a man, can be secured at a given salary. In other words, for a man of the same training and personality, a much higher salary would have to be paid." 2

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2 E. A. Fitzpatrick, The Scholarship of Teachers in Secondary Schools, p. 14.

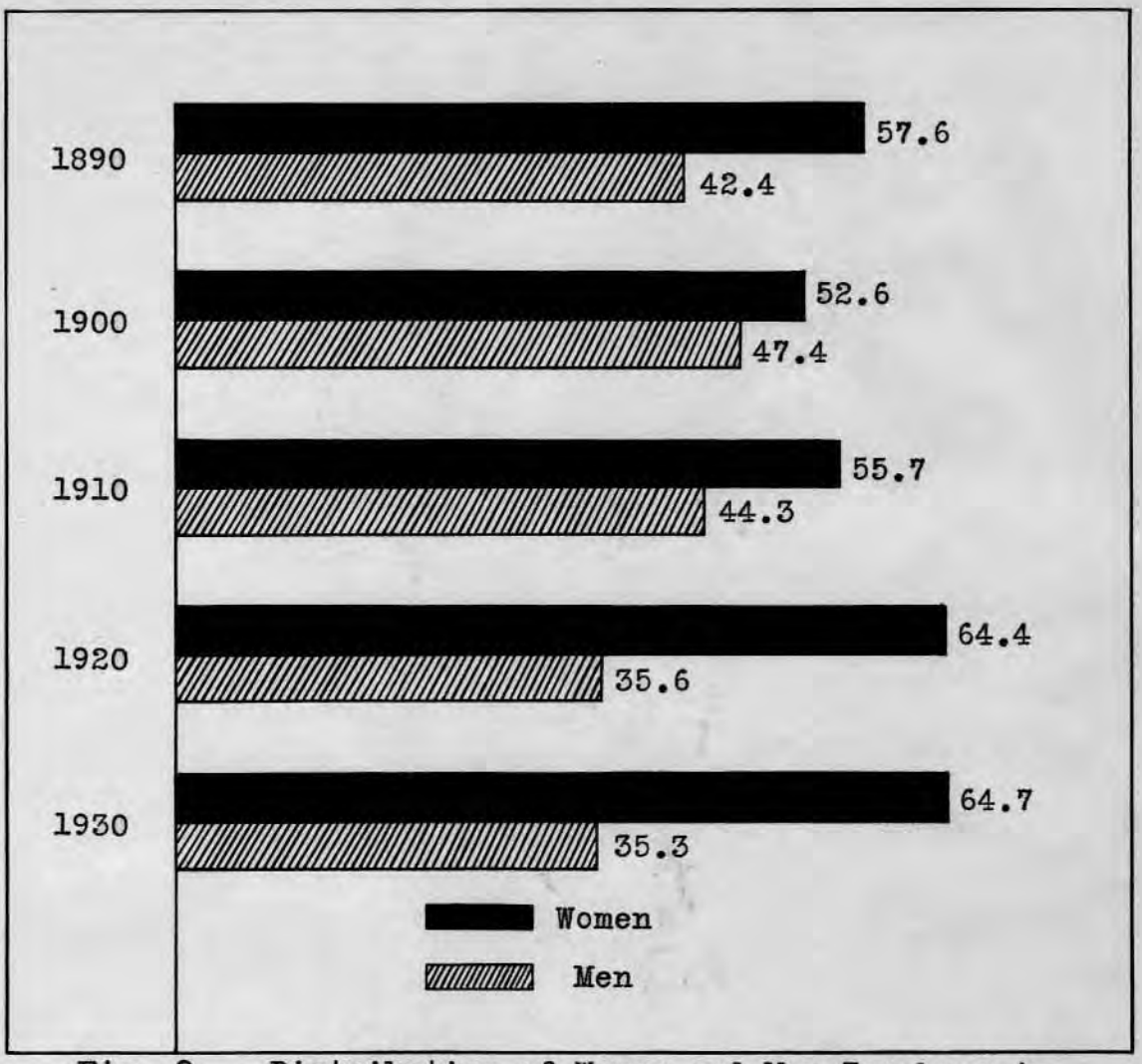

Fig. 2. - Distribution of Women and Men Teachers in Public and Private Secondary Schools from 1890 to 1930.

Thus, in the available data of the last forty years there is nothing to indicate that high school teaching is becoming increasingly attractive to men. The low median salaries paid to high school teachers undoubtedly influence men in refraining from looking upon high school teaching as a desirable life career. Any attempt to raise secondary school teaching to even a semi-professional level must face these facts. Men of high intellectual qualities and personality will be brought into high school positions, if financial rewards are made attractive.

Salaries

Salaries have fluctuated from time to time, being comparatively low until approximately 1920, and gradually increasing after that date. The economic position of secondary school teachers in cities in 1928-29 and 1930-31 is presented in Table XVII. The median salary paid junior high school teachers in 1928-29 varied from $1399 (in cities with a population of from 2,500 to 5,000) to $2348 (in cities with a population of over 100,000. In 1930-31 the figures ranged from $1360 to $2348.

TABLE XVII

Median Salaries Paid Teachers in Junior and Senior High Schools in Cities in 1928-29 and 1930-31

Size of Cities	Junior High Schools		Senior High Schools	
	1928-29	1930-31	1928-29	1930-31
Over 100,000 population	$2348	$2348	$2680	$2731
30,000 to 100,000 pop.	1843	1860	2120	2111
10,000 to 30,000 pop.	1634	1619	1869	1876
5,000 to 10,000 pop.	1528	1494	1729	1692
2,500 to 5,000 pop.	1399	1360	1584	1547

Research Bulletins of the National Education Association, Vol. 7, No. 3, May, 1929, p. 121 and Vol. 9, No. 3, May, 1931, p. 177.

In senior high schools in 1928-29 the median salary varied from $1584 to $2680 and in 1930-31 from $1547 to $2731.

What has been the trend of the medians in these cities since 1928-29? The median junior high school teacher's salary has remained the same in cities of over 100,000 population,

and it has increased in cities from 30,000 to 100,000 in population, while in cities of less than 30,000 population the median salary has decreased. In senior high schools the median has increased in the first and third groups, while it has decreased in the other three groups. The tendency for the median to increase has been more general among large rather than among smaller cities.

The following combination of factors determine salaries: "Of the 1,077 salary-schedule cities reporting, about one-half place teachers on the schedule according to a combination of three factors: years of service, amount of professional training, and the teaching position held." 3

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3 "The Retention, Promotion, and Improvement of Teachers," Research Bulletin of the National Education Association, Vol. 10, No. 2, March, 1932, p. 44.

Salaries have also been affected by the economic law of supply and demand.

Supply and Demand of Teachers

It was easy and profitable for teachers to find employment outside of the schools during the period of the World War. Teaching salaries and conditions were often unpleasant, therefore, many left the profession. This fact, together with the increase in secondary schools and enrollments, resulted in an excessive demand for teachers. The lack of an adequate supply of properly trained instructors was a vital problem until recently. As late as 1928, Charles Judd wrote as follows:

"Providing suitable teachers for American high-

schools is a task so colossal that our civilization is staggered in its efforts to meet the demand. There are some who comment adversely on the training of the teachers in the high schools and use phrases which seem to indicate that the schools are in some sense guilty of deliberate neglect. The fact is that the schools are increasing so rapidly in the number of pupils enrolled that the generation which has completed its education is not able to supply teachers in adequate numbers." 4

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4 C. H. Judd, The Inglis Lecture, 1928, "The Unique Character of American Secondary Education," p. 42.

The excessive demand, particularly between 1920 and 1925 resulted in increases in salaries and improvements in working conditions. As teaching conditions improved the supply began to increase. On page 236 of the New International Year Book 1930, we find, "As early as 1925 there were evidences that there was or soon would be an over-supply of teachers, for the public schools. This condition continued until in 1930 the situation had become serious." In 1931 the U. S. Office of Education summarized the situation as follows:

"During the early part of the decade reports concerning the supply of teachers indicated a scarcity in numerous sections of the country. At the close of the decade, reports from many cities and States indicated a large surplus of certificated teachers. This is particularly true in the metropolitan areas, where many young people qualified for appointment are unable to secure teaching positions in the public schools.....Reports were received from the State universities and land-grant colleges in 1928 concerning conditions of supply and demand. A shortage rather than a surplus of teachers was reported in vocational and nonacademic or special subjects, as compared with a decided oversupply of elementary and high school teachers of academic subjects. Conditions varied considerably among the States and local communities.....The industrial and business depression beginning in 1929 has had only an indirect effect upon the status of teacher employment. Teaching is relatively a stable occupation. The workers in the schools are not subject to widespread

lay-offs such as those experienced by employees in certain other fields." 5

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5 "Biennial Survey of Education, 1928-1930," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. I, pp. 501-3.

Regardless of an apparent oversupply of fairly well-trained teachers, there never have been enough adequately trained teachers in our secondary schools. Thousands of teaching positions are annually staffed with teachers whose training does not meet accepted standards. Present conditions, regarding the supply and demand of high school teachers, tend toward improved standards. The effect of supply and demand upon standards is indicated as follows:

> "The data just presented indicate a marked tendency among city systems to raise quantitative training standards above four years for new senior high-school teachers. This tendency has undoubtedly been facilitated by the marked increase in the output of our teacher-training institutions within recent years. There is by no means a surplus of well-qualified teachers for the nation as a whole; rather there is still a shortage, but the number appears to be increasing. Moreover, in many states there evidently is a serious oversupply of persons with teaching certificates.....This oversupply means that larger numbers of persons are more eager to enter teaching than formerly, and that standards of admission can probably be raised more rapidly than before without creating such a shortage as to cripple the schools."6

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6 "The Selection and Appointment of Teachers," Research Bulletin, of the National Education Association, Vol. 10, No. 1, January, 1932, pp. 9-10.

Undoubtedly, this is the opportune time to raise standards and improve the quality of high school teacher training. Further discussion of the lengthening of training courses will be found under the next section of this thesis, entitled "Training of High School Teachers."

The Training of High School Teachers

Under this section will be discussed the recommendations of the Committee of Fifteen and Seventeen, diplomas and degrees held, courses of training being lengthened, the professional preparation of teachers, and specialized preparation.

Recommendations of the Committee of Fifteen and Seventeen

No study of secondary education should fail to give attention to the extra-legal authorities which have influenced the training of high school teachers and resulted in professional improvement. The recommendations of the Committee of Fifteen are described by E. E. Brown, thus:

> "A committee of the National Educational Association--known as the 'Committee of Fifteen'--reported in 1895, among other topics, on the training of teachers for secondary schools. This committee declared that 'The degree of scholarship required for secondary teachers is by common consent fixed at a collegiate education.' They proposed a course of special training for such teachers, consisting of instruction during the senior year of the college course in psychology, methodology, school systems, and the history, philosophy, and art of education; and a graduate year of practice in teaching, under close supervision, supplemented by advanced studies in educational theory." 7

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7 E. E. Brown, The Making of Our Middle Schools, p. 429.

The Committee of Seventeen recommended not only professional preparation, but special preparation for the subjects to be taught and social studies to provide the proper social outlook. The Sixth Yearbook says:

> "In 1907, the Committee of Seventeen of the national Education Association recommended that:

> (1) In academic subjects, the candidate should study the subject to be taught, something in the social subjects, general psychology, and either history of philosophy, logic, or ethics; (2) in professional studies, history of education, educational psychology, principles of education, special methods, and organization and management of the high school; (3) in applied work, observation and practice in own school or in affiliated private or public school, and, if possible, in more remote schools; (4) that the minimum time requirement be four years in college, following four years in high school, supplemented by one year of graduate work equally divided between academic and professional subjects; and (5) that the undergraduate professional courses be distributed throughout the last two years." 8

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8 The Development of the High-School Curriculum, Department of Superintendence, Sixth Yearbook, p. 268.

These committees are evidences that educational leaders have attempted to improve standards for the training of high school teachers. Although far in advance of common practice, it has been held, at least theoretically, since the Report of the Committee of Fifteen in 1895 that "the degree of scholarship required for secondary teachers is, by common consent, fixed at a collegiate education." (Proceedings of the National Education Association, 1895, p. 250.) The Committee of Seventeen of the National Educational Association in 1907 reiterated the same general standard when it recommended that "the minimum requirement for a secondary school teacher be graduation from a college maintaining a four-year course and requiring four years' high school work for admission." (Proceedings of the National Education Association, 1907, p. 537.)

These recommendations did much to influence the standards of training for high school teachers. The achievement of these ends will now be discussed.

Diplomas and Degrees Held

During the last decade of the nineteenth century and the first decade of the twentieth century, many high school teachers had less than four years of training beyond the secondary school. They had completed a normal school course varying in length from one to two years. In 1898 in the state of New York, over one-third of the secondary school teachers were normal school graduates, and almost one-fifth had even less training according to E. E. Brown:

> "In the state of New York, in 1898, 32 per cent of the teachers in the secondary schools--not including principals--were college graduates, 39 per cent were normal school graduates, 19 per cent were high school graduates, and 10 per cent had had other training. These figures include private academies as well as public high schools."9

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9 E. E. Brown, op. cit., p. 428.

The number of high school teachers possessing the bachelor's degree gradually increased after 1910. On page 224 of the New International Year Book 1910, we find: "Beginning with May all principals and all high school instructors in Chicago were required to have college degrees." Thus certain localities took the lead in advancing teacher training standards.

In 1911 John Brown estimated that not more than half of all high school teachers were college graduates.

> "Taking the country over, it is probably true that not more than fifty per cent of the high scho teachers are either graduates of a four-year colle course, or have training equivalent to that requir for such graduation; and that a much smaller numb probably not more than five per cent, have adequa

pedagogical training or would be able to meet the requirements presented in the Report of the Committee of Seventeen." 10

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10 J. F. Brown, The Training of Teachers for Secondary Schools in Germany and the United States, pp. 232-3.

In 1924 the North Central Association adopted the following minimum requirements:

> "'The minimum attainments of a teacher of any academic subject, and of the supervisors of teachers of such subjects, shall be equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools. Such requirements shall not be construed as retroactive while the teacher remains in the same city high school system'." 11

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11 "Accredited Secondary Schools in the United States," U. S. Bureau of Education, Bulletin, 1925, No. 11, p. 1. Quoted by E. A. Fitzpatrick, op. cit., p. 26.

The number of high school teachers possessing the bachelor's degree is estimated by Frank P. Bachman as follows:

> "With respect to the years of training above high school required, this general academic standard of the North Central Association remains unchanged, although it has been modified and somewhat more definitely defined. Despite this general academic standard, of the 20,857 academic teachers in accredited high schools of the North Central Association in 1925, 5.5 per cent did not have the equivalent of a standard college education and of the 9,875 non-academic teachers 54.4 per cent did not hold college degrees.....Unfortunately, the preparation of high school teachers in the accredited schools of the Southern Association not holding bachelor's degrees is not known. It is, however, safe to infer that more than twenty-five per cent are not college graduates." 12

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12 F. P. Bachman, Training and Certification of High School Teachers, pp. 7-8.

Thus the states have accepted college graduation as their

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12 F. P. Bachman, Training and Certification of High School Teachers, pp. 7-8.

Thus the states have accepted college graduation as the

general requirement, but a recent movement is establishing the master's degree or its equivalent as the standard requirement. The United States Office of Education has recently stated the facts thus:

> "The bachelor's degree, of course, has become a standard requirement almost everywhere for academic teachers in accredited high schools. The District of Columbia, like California and a few other sections, has gone even further by definitely raising requirements above college graduation for secondary teachers. In 1933 the master's degree or equivalent training will be required of all high-school teachers in the District of Columbia. Graduate work, while not required of teachers in most high schools, is a decidedly helpful asset for teachers wishing to secure positions in progressive schools." 13

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13 B. W. Frazier, "Professional Education of Teachers," Biennial Survey of Education 1928-30, Vol. 1, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 1, p. 510.

The inadequacy of the bachelor's degree as preparation for high school teaching has been recently felt with increasing keenness.

Courses of Training Being Lengthened

Very few teacher training institutions had more than a two-year course, before 1920, except those which were connected with universities. Between 1920 and 1925 a considerable number of normal schools were converted into teachers' colleges with courses of study extending to four years, and in some cases offering degrees.

That numerous teacher training institutions are planning to provide a "fifth year" may be inferred from a recent magazine article, which says:

"A number of independent colleges are definitely hoping to offer only the introductory work in education and to send their graduates who contemplate teaching to professional schools of education for a fifth year of specialization and student teaching. A number of institutions have incorporated the fifth year or are contemplating providing it at some time in the near future." 14

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14 W. E. Peik, "Courses for High-School Teachers," School Life, Vol. 18, No. 4, December, 1932, p. 72.

After 1920 there were also noticeable increases in summer school attendance. There appeared an intense desire, on the part of teachers to improve their education and keep abreast of the latest developments in their chosen work. In his chapter entitled "University Study of Education," I. L. Kandel said:

"In 1921 a total of 253,111 students, the majority of them teachers, attended summer schools in 410 institutions; of these 241 were universities and degree-granting colleges, attended by 143,154 students. The work is predominantly of an undergraduate character, although a large proportion of the students attend for graduate study. The majority of the courses selected are professional. Whatever the nature of the studies, however, and whatever the standards, the distinguishing feature is that the teacher acquires the habit of further study." 15

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15 I. L. Kandel, Twenty-Five Years of American Education, p. 37.

A report shows the growth in summer school attendance from 1929 to 1931. In 1929, 414,824 students were enrolled in all courses, and 270,237 in courses in education. In the summer of 1931, 623 schools enrolled 425,100 students in all courses, and 273,148 were enrolled in education courses. 16

16 "Growth of Summer School Attendance," Journal of the National Education Association, Vol. 20, No. 8, November, 1931, p.298.

Frank K. Foster has described the influences at work and causes of the increasing summer school attendance, as follows:

> "Several factors have influenced the rapid development of the summer session. Paramount among them is the elevation of teaching from the artisan level toward a professional status. Standardizing agencies, increased certification requirements, salary schedules, increased tenure, retirement provisions, and public demand have stimulated this professional trend.....The large proportion of universities which emphasize graduate work in the summer sessions indicates a distinct demand for graduate degrees. As many as 11 teachers' colleges are granting the master's degree, the work assuming primary importance in the summer session." 17

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17 F. K. Foster, "Trends in Summer Sessions for Teachers," School Life, Vol. 17, No. 8, April, 1932, p. 153.

The number of teachers pursuing graduate study has gradually grown, until in 1931 the United States Office of Education reported as follows:

> "There was a 35 per cent increase in the number of graduate students in the two years between 1926 and 1928. Some interesting consequences of this unprecedented growth may be expected in future scholastic requirements for teachers in high schools, junior colleges, and regular 4-year colleges, as well as in public-school supervisory and administrative work." 18

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18 B. W. Frazier, op. cit., p. 505.

All of the above discussion indicates a trend toward improved pre-service and in-service training.

Professional Preparation of Teachers

To understand the conditions which existed at the close of the nineteenth century with regard to the lack of professional preparation of teachers, the following quotation is

taken from an address of 1890:

> "The secondary schools are sadly in need of better-trained teachers. It is remarkable how entirely the teachers in these schools have remained uninfluenced by the great interest in the science and art of teaching which has of late years manifested itself both in this country and in Europe. Secure in their possession of a considerable amount of knowledge and of more or less culture, the secondary school teachers have not seemed to understand the significance or the value of a professional preparation. As a result their work has been done in a routine, imitative way, and their pupils have suffered.....One important reason why the secondary schools have not felt this full measure of progress in methods of teaching that is so marked in the elementary schools, is that secondary teachers are usually college graduates, and the colleges have, until very recently, done so little to show that they are aware of what is being accomplished in the study of education. Consequently they have failed to contribute their proper proportion of duly qualified teachers." 19

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19 N. M. Butler, The Meaning of Education, pp. 235-6.

The need of professional training gradually came to be recognized, after about 1910, and significant changes took place in our higher institutions of learning. Their attitude toward the study of education became friendly, until now nearly all universities and colleges have such chairs or departments. In 1926, Paul Hanus said:

> "During the past thirty-five years, and particularly during the last dozen years or so, another agency has played an increasingly important part in promoting the improvement of secondary education, namely, the college and university departments, or schools, of education. They have sent out a host of teachers with an educational insight and outlook--a professional consciousness-not formerly attainable by beginners in their profession and promising much for the future." 20

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20 P. H. Hanus, The Inglis Lecture, 1926, "Opportunity and Accomplishment in Secondary Education," p. 35.

We have accepted the idea that the high school teacher must be trained in how to teach, and that something more than a general academic college course is necessary. The following professional courses are generally required:

> "It is easy from the foregoing table to detect the centers of common practice and what are generally regarded as the basic professional subjects in the training of high school teachers. These are, when arranged in order of frequency required, Educational Psychology, thirty-nine institutions; Supervised Teaching, thirty-eight institutions; Principles and Technique of High School Teaching, thirty-six institutions; Materials and Methods of Teaching High School Subjects, twenty-six institutions; and Secondary Education, twenty-three institutions. General Psychology also practically belongs in this group for it is either a prerequisite or a required subject in twenty-seven of the forty-five institutions under consideration. Fifteen institutions still hold to the value of the History of Education and sixteen require Introduction to Education." 21

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21 F. P. Bachman, op. cit., p. 30.

W. E. Peik recently made an intensive study of the prescribed offerings in Education courses at the University of Minnesota. He indicates the present status of the professional training of secondary school teachers as follows:

> "Recent studies of college and university curricula in Education for training high school teachers leave little doubt of a necessity for more investigation. The literature reveals a decided lack of clear conceptions regarding such important matters as the number of hours of professional work that should be required or allowed for the bachelor's degree; the courses to be included; the facilities for and the extent and nature of practice teaching, observation, or special methods; the content of texts that are used in fundamental courses; and the titles of courses purporting to carry similar content." 22

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22 W. E. Peik, The Professional Education of High School Teachers, p. 1.

The professional requirement which forty-five state universities make of prospective high school teachers is as follows: "The number of semester hours of professional work required by the several state universities or corresponding higher institutions varies from fifteen to thirty-six, with a median requirement of twenty semester hours." 23

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23 F. P. Bachman, op. cit., p. 28.

More will be said about professional requirements in the section of this thesis entitled "Certification Standards and Hiring Requirements".

Specialized Preparation

The Committee of Seventeen stated in 1907 that one of the elements of a teacher's training should be specialized study of the subjects to be taught. That this desirable standard had not been achieved by 1912 is evident from the following:

> "Our present situation is tersely described in the authoritative criticism of Dean Russell; most of our teachers are 'teachers with nothing to teach.' (English Special Reports, X, 471-472) We are still far from demanding, as we should, evidence of a satisfactorily completed college course in those subjects that the candidate intends to teach. A demand, apparently so obvious, is ignored to a surprising extent; teachers who have never carried on mathematical or classical studies in college are deemed worthy of teaching them, though they have neglected them since their own secondary school days." 24

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24 J. Sachs, op. cit., p. 14.

We may judge the number of teachers with inadequate specialized preparation in 1923 from a survey made at that time in the

Minnesota high schools of ten teachers or less.

> "'It shows that approximately one ninth of the teachers of history, one half of the teachers of political science, one third of the teachers of economics, one third of the teachers of sociology, one third of the teachers of botany, one half of the teachers of physiography, one third of the teachers of physiology, one fifth of the teachers of shop and mechanical drawing, and two thirds of the teachers of commercial subjects have had no special preparation in higher institutions for these subjects'." 25

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25 P. W. Hutson, The Training of the High School Teachers of Minnesota, pp. 46-47. Quoted by E. A. Fitzpatrick, op. cit., pp. 44-45.

Undoubtedly, inadequate specialized preparation is still a common tendency, but teacher training institutions are beginning to set definite requirements for each of the several high school teaching fields--for academic as well as special subject teachers.

> "This same tendency has carried over to a greater or less extent in the training of special high school teachers, that is, in the training of teachers of Agriculture, Home Economics, Music, Art, Physical Education, Commerce and Trade Training; but little or nothing was done until recently to prescribed systematic curricula with a minimum of electives for the training of various types of academic high school teachers. This is, however, now being done. An early and excellent example are the curricula of the University of Kentucky for the training of academic high school teachers. More recently this philosophy of education and of teacher training has been carried to its logical conclusion at the University of Oklahoma where the College of Education has not only developed curricula for the training of each type of academic high school teacher but also for each and every other type of teacher it proposes to train. This tendency to make definite both the academic and professional preparation required of each and every type of prospective teacher and to organize both the academic and professional prescriptions into a continuous, sequential and related curriculum to be followed consistently by the prospective teachers, is one of the most hopeful and potent recent developments in the whole field of teacher training; for it is

only by so doing that teacher training will ever become thorough-going and scholarly and be elevated to a semi-professional level." 26

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26 F. P. Bachman, op. cit., pp. 34-5.

During the last decade the following states have taken the lead in setting up definite academic requirements for each type of academic high school teacher:

> "Probably nothing more distinctive has occurred in these institutions in the training of teachers within the last five to seven years than the tendency in approximately a half of them to suggest in the regular high school teaching fields, to say nothing of special fields, the particular academic courses best suited to the respective needs of prospective academic high school teachers. Among others, Arkansas, Florida, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Virginia, Washington, West Virginia, Wisconsin and Wyoming have made notable contributions to this aspect of high school teacher training. Out of their collective endeavors are gradually emerging definite ideas of the particular academic training best suited to the needs of high school teachers." 27

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27 Ibid., p. 145.

Improvements of this kind in higher institutions of learning are undoubtedly resulting in better preparation of teachers for the subjects taught in high school. In this connection, it is interesting to compare public and private high school teachers. A recent survey made by Leonard Koos revealed the fact that private school teachers had better preparation for the subjects taught than did public high school teachers. 28

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28 L. V. Koos, Private and Public Secondary Education, pp. 191 and 206-7.

While there are still too many instructors teaching sub-

jects in the high school for which they have not had extended college preparation, there are others whose training has erred in the direction of over-specialization. They have not had well-balanced training. In 1912, Julius Sachs decried the one-subject teacher, as follows:

> "From the undesirable extreme of earlier days, when a teacher with or without qualifications for the task was expected to teach almost every subject of the secondary curriculum, we have gone to the other extreme of the one-subject teacher, and the colleges have ardently advocated this tendency to specialization. Aside from the fact that the one-topic teacher is an obstacle in the arrangement of the curriculum of all but large city schools, as he is either disqualified or reluctant to be assigned to any other subject, this tendency to specialization is harmful to every type of secondary school. The one-topic teacher appreciates only the significance of his own field." 29

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29 J. Sachs, op. cit., p. 9.

College practice is responsible for the large amount of over-specialization which exists today. Colleges permit students who are preparing for teaching positions, to major in Greek, geology, psychology, and other subjects which are now seldom taught in the secondary school. Over-specialization is bound to occur when college students major in English composition, zoology, or political science, neither of which is taught singly in the high school. In 1927 Percival Hutson said:

> "Guidance is generally effected through the same major system which serves to direct liberal training. As a result, majors which are inappropriate and too highly specialized for teacher-training are generally permitted; an institution commonly requires the same number of hours for all majors, regardless of the extent to which the several subjects are emphasized in high school; and the minor is seldom used to supplement the major in giving the student command over a logical combination of sub-

jects." 30

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30 P. W. Hutson, The Scholarship of Teachers in Secondary Schools, pp. 182-3.

Teachers need to be prepared in two high school subjects and appropriate combinations within each field. The trend is in this direction. Closely related to "The Training of High School Teachers," is the next topic, "Instructional Organization and Teaching Combinations."

Instructional Organization and Teaching Combinations

Besides faulty curricula in teacher training institutions, numerous other reasons can be suggested to account for high school instructors teaching subjects in which they are wholly unprepared or inadequately prepared, namely,--the absence in many high schools of "definite, continuous, and reasonable teaching positions," the number of subjects which the teacher is expected to teach, unwise hiring on the part of school boards, and the difficulty which high school principals sometimes have in arranging program schedules, particularly in the small high school.

With regard to the number of subjects which the teacher is teaching, Frank P. Bachman says:

> "That teachers in small high schools are being compelled to teach in an impossible number of teaching fields has been pointed out in recent years again and again. A teaching field as defined above includes all the different branches of a subject such as English, Mathematics, Social Studies, Science, Health and Physical Education, that may be taught in high school. Any assignment of work distributed over more than two such academic or one such special field is educationally excessive; for, as pointed out above,

teachers cannot be properly prepared under prevailing standards to teach in more than two academic fields or in more than one special field." 31

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31 F. P. Bachman, op. cit., p. 52.

Frank Bachman has further given us a good summary statement regarding the problems involved in present instructional organization and teaching combinations. He says:

> "So long as teachers in high schools are to any such extent assigned, without regard to preparation, to teach any and all high school subjects; so long as college authorities fail in the preparation of high school teachers to distinguish between high school teaching fields and high school subjects and permit prospective high school teachers on the sole basis of personal preference and without regard to supply and demand to select conventional college majors and minors as a preparation for high school teaching; so long as small high schools continue to ape large high schools and attempt to give instruction in an excessive number of high school subjects with little regard to the number of teachers required to carry a given program, thereby being often compelled to cut down the length of recitation periods and to overload teachers with an excessive number of daily recitation periods, and an impossible number of different studies to teach; so long will the work of our high schools be unsatisfactory." 32

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32 Ibid., pp. 61 and 63.

Certification Standards and Hiring Requirements

Within the last forty years, the power of certification has been centralized. The state alone, with few exceptions, grants certificates upon the fulfillment of requirements largely based on four factors: (1) some academic college education, (2) preparation in the subject which the candidate expects to teach, (3) professional preparation including practice teaching, and (4) teaching experience. Standards of certification vary

among states, so that one or all of the above may be required.

With respect to professional preparation, much has been accomplished by accrediting associations and by the states. The trend in requirements may be inferred by comparing a quotation from P. W. Hutson's book written in 1927 with one from F. P. Bachman's book written in 1930. In 1927 only forty-three states required pedagogical training.

> "Forty-three of the forty-six states (excluding Montana and New Mexico) included in this study make some requirement of pedagogical training as a condition of receiving the best certificate obtainable without experience. Forty of the states stipulate a certain number of semester hours." 33

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33 P. W. Hutson, op. cit., p. 158.

In 1930 all states imposed pedagogical requirements. Most states required from fifteen to eighteen semester hours of professional preparation, but in some states the requirements ranged from five to twenty-four semester hours.

> "On the other hand, the states have been relatively active in exercising their rightful prerogative with respect to professional preparation. All states impose such requirements, at least in terms of semester hours. With the exception of California, however, this required professional preparation is included as a part of the required college work and is not in addition thereto. These professional requirements for the highest grade academic high school teacher's certificate range from five semester hours in Connecticut to twenty-four semester hours in Ohio and Texas.....Thirty-three of the forty-five states, it will be noted, require between fifteen and eighteen hours of professional preparation for the highest grade of academic high school teacher's certificate. The common practice is thus clearly indicated.....It becomes clear therefrom that, in the opinion of the states taking a positive position, Educational Psychology, Secondary Education, Principles and Technique of High School Teaching, Materials and Methods of Teaching High School Subjects and Directed

> Teaching are regarded as the foundation and core of such professional preparation." 34

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34 F. P. Bachman, op. cit., pp. 17-18 and 20.

With regard to academic preparation, twenty-seven states make no requirement except graduation from a recognized college, and in eight others the subject matter requirements are relatively low.

> "In determining the desirable academic training of high school teachers, the states, with minor exceptions to be pointed out, have exerted little or no leadership. For example, of the forty-eight states, twenty-seven make no academic requirement whatsoever for the highest grade of academic high school certificate other than graduation from a recognized college; that is, these states recognize unconditionally college graduation, whatever that may mean, as adequate academic preparation for academic high school teaching. Sixteen states require college graduation and also directly or indirectly a major or minors with a specified number of hours of work in each. In eight of these states the requirements for majors and minors tend to approach the corresponding requirements of recognized colleges and universities, but in the remaining eight, Delaware, Florida, Illinois, Massachusetts, Nebraska, New Jersey, Tennessee and Virginia, these subject matter requirements are extremely low and inadequate, ranging from three to twelve semester hours. Only five states require college graduation, also a major or majors and minors with a given number of semester hours in each, and in addition prescribe or suggest what college courses and approximately the number of hours in the respective courses, that may be counted toward given majors and minors. In a word, thirty-five of the forty-eight states have practically surrendered all responsibility for the character and type of the academic education their academic high school teachers receive. Only thirteen are exercising to any considerable extent their rightful prerogative and determining what shall be the character and type of such training." 35

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35 Ibid., pp. 16-17.

All states need to insist that every prospective high school

teacher shall make specific preparation for the particular position in view, as well as insisting that teachers be permitted to teach only in the fields in which they have been certificated to teach.

Twenty-seven states, however, still issue blanket certificates.

> "High school teachers' certificates are usually couched in dignified terms and from a casual reading one might believe that the given certificate has genuine educational significance, but even the highest grade high school teacher's certificate in twenty-seven states is valid, irrespective of the particular preparation of the given prospective teacher, to teach all subjects in high school, and in twenty-six states is valid to teach in both high and elementary schools.....Among the states that have given serious attention within recent years to this problem are: Alabama, Arkansas, Indiana, Mississippi, North Carolina, Oklahoma, Virginia and West Virginia." 36

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36 Ibid., p. 151.

The trend has been away from the so-called blanket certificate which entitles the holder of a bachelor's degree to teach any academic subject in the high school. The United States Office of Education reported in 1931 as follows:

> "A tendency in certification that is noteworthy is the abolition of so-called 'blanket' certification and the provision of certification by subject or by field of work. A surprisingly large number of teachers in this country are giving instruction in high-school subjects that represent neither their major nor minor in college. A movement is under way to remedy this condition. Beginning with special certification for nonacademic teachers, the movement has been extended to grade specialization, and now certification is being based on regular high-school academic subjects.....Among the States that are extending most rapidly their certification requirements to specific subjects or types of work are Connecticut, Delaware, Indiana, Maryland, Ohio, North Carolina, Pennsylvania, Virginia, and West Virginia." 37

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37 B. W. Frazier, op. cit., pp. 510-11.

In states where subject certification laws exist not only for special subjects, but for academic subjects as well, there is little choice left to local school authorities in matching teachers and teaching positions. Special preparation for each subject taught is thus required by the state.

The matter of life certificates and teaching experience is summarized by P. W. Hutson as follows:

> "Practically all states grant life certificates. For their issuance, experience is a factor of importance with almost every state, varying numbers of years being stipulated. Furthermore, experience is a factor in some certificates of less than life-duration in many states." 38

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38 P. W. Hutson, op. cit., p. 155.

Thus we see that great differences exist among states as to the training required of high school teachers. There is no guarantee of equality of educational opportunity between the children of various states as far as the training of the teacher affects the quality of instruction. In some states high school boys and girls are guaranteed well-trained teachers, in others relatively poorly-trained teachers are employed. W. E. Peik recently indicated the causes of a lack of clear conceptions, when he said:

> "State departments vary widely in the minimum legal requirements that they prescribe for certification, and the accrediting associations that supervise the standards of their territories are found from time to time to vary in the minimal amount, in the character, and in the rigidity of the training that they prescribe.....The autonomy of each of forty-eight states relative to educational matters within its borders would naturally result in much variation in certification requirements. The rapid expansion of secondary education itself, under a variety of social, political, and economic conditions,

> has exerted its influence upon standards in diverse ways from section to section, from state to state, and from city to city. All these factors tend toward diversity rather than agreement. Institutional diplomas and secondary teaching certificates have therefore come to possess very unequal and often uncertain professional values. " 39

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39 W. E. Peik, The Professional Education of High School Teachers, pp. 1-2.

Even within the states there are great variations in hiring requirements. The number of teachers who do not meet high training standards are more numerous in small high schools than in large schools, and urban instructors better meet the standards than do rural high school teachers. The high urban requirements and present practice in city school systems may be inferred from the following quotation:

> "Practically all cities which have junior high schools require at least two years, and about half of them require four years of college preparation for initial appointment in these schools. The proportion having minimum requirements of four years or more ranges from 40 percent in cities of 2,500 to 5,000, to 72 percent in cities over 100,000 in population. More than 98 percent of all the cities reporting now demand at least four years of higher education of their newly appointed teachers in senior high schools. A few require five years, and two cities report a minimum requirement of six years. In 12 percent of the cities over 100,000 in population the requirement is five years beyond high-school graduation." 40

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40 "The Selection and Appointment of Teachers," op. cit., p. 8.

Differences in training also exist between teachers of academic subjects and teachers of special subjects. The latter often have less extended training than do the former. This accounts for the difference found between public and private high school teachers, in the survey reported by Leonard Koos

as follows:

> "In extent of training, when this is measured by the proportions of teachers with Bachelor's or advanced degrees (or with some training beyond the Bachelor's degree without possession of advanced degrees), teachers of private schools showed to advantage even when the largest schools were included in the comparison. The advantage was largely accounted for by teachers of the special subjects. Of such teachers public schools employ larger numbers and proportions than do private schools." 41

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41 L. V. Koos, op. cit., p. 206.

The more academic nature of private school offerings is thus reflected in a comparison of teacher qualifications of public and private schools.

Summary

The number of secondary school teachers increased from 16,329 in 1890 to 235,320 in 1930, or 1341 per cent. The number of women has consistently exceeded the number of men, but the most desirable ratio was reached in 1900 when almost half of the instructors were men. Since 1900 the tendency has been in the direction of more women and less men proportionately, with the private schools showing a more desirable ratio than public high schools since 1920. Thus, there is nothing to indicate that high school teaching is becoming increasingly attractive to men.

During the World War, teaching salaries were low and many instructors left the profession. This fact, together with the increase in secondary schools, created a demand for teachers, especially between 1920 and 1925 when the supply was particu-

larly inadequate. The excessive demand and undersupply of properly trained teachers between 1920 and 1925 resulted in increased salaries and improved working conditions. This in turn stimulated a flow of persons into the profession until the oversupply of academic teachers (not vocational and special subject teachers) became serious. Since 1930, the trend has been toward reduced salaries, except in large cities. The increased output of teacher training institutions tends to cause a rise in quantitative training standards.

The Committee of Fifteen in 1895 and The Committee of Seventeen in 1907 influenced the training of high school teachers and stimulated professional improvement. These committees recommended one year of graduate work, adequate professional training, and special preparation for the subjects to be taught. The suggestions were far in advance of the actual qualifications commonly found.

From 1890 to 1910 many high school teachers possessed less than four years of training beyond the secondary school. In 1910, not more than fifty per cent were four year college graduates. Since 1910, the number of teachers possessing the bachelor's degree gradually increased. In 1925, about ninety-five per cent of the academic teachers and approximately forty-five per cent of the non-academic teachers of the North Central Association had the equivalent of a standard college education.

Before 1920 many teacher training institutions had only a two-year course, but between 1920 and 1925 a considerable number of normal schools were converted into four-year teachers'

colleges. Since 1920 there has been a noticeable increase in graduate study and summer school attendance, indicating the intense desire of teachers to improve their education and keep informed of the latest developments in their work. The trend has been in the direction of improved pre-service and in-service training.

At the close of the nineteenth century many instructors had only a meager knowledge of the science and art of teaching. The need for professional preparation was not recognized until the second decade of the twentieth century. Higher institutions of learning became friendly toward the study of education, and have played increasingly important parts in promoting improvements in secondary education. The basic professional subjects in the training of high school teachers are: Educational Psychology, Supervised Teaching, Principles and Technique of High School Teaching, Materials and Methods of Teaching High School Subjects, and Secondary Education. Forty-five state universities require from fifteen to thirty-six semester hours, with a median of twenty semester hours of professional work.

Surveys made in 1912 and 1923 revealed the large number of teachers who had had no specialized preparation for the subjects they were teaching, with public school instructors, on the whole, having more inadequate training than private high school teachers. Recently teacher training institutions have begun to set definite requirements for each of the several high school teaching fields--for academic as well as special subject teachers. The danger of over-specialization, resulting in the

one-subject teacher, is also being eliminated, for the trend is toward preparing academic instructors in two high school fields.

Besides faulty curricula in teacher training institutions, other reasons can be suggested to account for high school instructors teaching subjects in which they are wholly unprepared or inadequately prepared, namely,--the excessive number of subjects which the teacher is expected to teach, unwise hiring on the part of school boards, and the difficulty which high school principals have in arranging program schedules, particularly in the small high school. However, the trend is toward improved instructional organization and teaching combinations.

Since 1890 the power of certification has been centralized. The state alone, with few exceptions, grants certificates. With respect to professional preparation, much has been accomplished by accrediting associations and by the states. In 1930 all states imposed pedagogical requirements, most states requiring from fifteen to eighteen semester hours of professional preparation, but in some states the requirements ranged from five to twenty-four semester hours. With regard to academic preparation, twenty-seven states make no requirement except graduation from a recognized college, and in eight others the subject matter requirements are very low. Thirteen states have academic requirements, and the trend has been away from blanket certification, toward special certification. The movement began with special certification for non-academic teachers and was later extended to academic teachers.

Great differences in the hiring requirements of high school

teachers exist between states, and within states. Lower standards are usually permitted in small rather than large high schools, in rural rather than urban schools, in public rather than private schools, and in special subject instructors rather than academic teachers.

CHAPTER III

ORGANIZATION AND ADMINISTRATION

ORGANIZATION AND ADMINISTRATION

The Reorganization Movement

The general reorganization of secondary education with regard to purposes, methods, and content, together with the downward and upward extension of the traditional four-year high school involve important developments in American education since 1890. New organization has been resulting from the demands of industrialism and general social changes constituting a new age. To the early, simple agrarian society, high schools and colleges were sufficiently remote from the masses to be unquestioned regarding organization. The traditional eight-year elementary school with its irregular attendance, short school year, poorly trained teachers appeared to be adequate. But with the coming of industrialism, educational opportunity was extended and reorganization became necessary.

Charles W. Eliot gave impetus to the reorganization movement by questioning the length and content of the grammar school course.

> "In 1888 President Charles W. Eliot, of Harvard University, read a paper before the Department of Superintendence of the National Education Association on 'Can School Programs be Shortened and Enriched?' and in 1892 followed this by another before the National Education Association on 'Shortening and Enriching the Grammar School Course.' These two papers started a discussion of a new educational problem,--that of the respective purposes and places in our educational system of the common elementary school, the high school, and the college. The discussion centered about the questions of shortening the instruction in the old drill subjects, the addition of new and more advanced studies in the upper grades of the elementary school, the specialization of the work of teachers there by the introduction of a departmental type of teaching for the sixth, seventh, and eighth school grades, and the shortening of the whole course of instruction so that

boys might begin their professional study and life-work at an earlier age. These topics were much discussed for a decade and a half, and much careful thinking was given to them." 1

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1 E. P. Cubberley, Public Education in the United States, pp. 455-6.

The early proposals which came from college administrators were primarily concerned with the economy of school time. Earlier completion of the prevailing secondary school course was desired. Later proposals which were called forth by changes in secondary school clientele emphasized a broader, richer, and more democratic type of secondary education in order to prevent unnecessary pupil withdrawal. Education of adolescents was to be humanized, and better articulation between elementary, secondary, and college education was sought in order to unify the American educational ladder. Calvin Davis, in 1925 summarized the purposes of the reform movement into three periods of development, as follows:

> "(1) From 1890 to 1900, the aim was to shorten the period of training for the college student who is preparing to enter professional life.
>
> (2) From 1900 to 1910, the aim was to hold more pupils of all types in the upper grades of the elementary school and in the high school, and particularly to make vocational provision for those who intended to go to work.
>
> (3) From 1910 to the present time, the aim has been to discover the individual characteristics of pupils and to provide a more adequate education for each particular child in whatever grade of the school he may happen to be.
>
> During the first period, the movement was guided and influenced largely by university administrators; in the second period, by public school authorities; in the third period, by professional students of pedagogy." 2

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2 C. O. Davis, Junior High School Education, p. 28.

Educational reorganization was largely an academic question until 1911 when the Commission on Reorganization of Secondary Education was appointed by the National Education Association. The work of the Commission resulted in the acceptance of the reorganization idea throughout the country.

Before the World War the traditional four-year high school was almost universal. There was practically no discussion of reorganized types of schools in the Reports of the United States Bureau of Education prior to 1920. Reorganization has resulted in junior high schools, senior high schools, junior-senior high schools, and junior colleges, with many varieties of each. The percentage of public high schools that are of the reorganized type has been steadily increasing.

> "In 1928 the Office of Education has record of 4,885 reorganized high schools.....This figure exceeds by 1,341 the number of schools which two years earlier reported that they had abandoned the 7-4 or 8-4 plan for some type of reorganization. The biennium before that showed an increase of 996 in the number of reorganized schools. The percentage of increase is lower with each succeeding biennium, but the actual gain in the number of reorganized schools is steadily rising.....Consistent and significant gains have been registered since 1922 for schools which are units by themselves, namely, junior high schools and senior high schools.....Junior-senior high schools, show only slight gain in numbers..... The junior and senior segregated schools have been developed principally in larger centers. The (junior-senior) undivided schools are located more often in smaller communities." 3

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3 "Secondary Education," Biennial Survey of Education 1928-30, Vol. 1, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 1, pp. 122-3.

The per cent that the reorganized high schools were of the total public high schools in 1926, 1928, 1930, was 19.4, 23.8,

and 26.0 respectively. 4

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4 "Statistics of Public High Schools, 1929-30," Biennial Survey of Education, 1928-1930, Vol. 2, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, p. 686.

Thus, in 1930, approximately one-fourth of all public high schools were reorganized schools, while three-fourths were of the regular type.

This movement has not been confined to any one section of the United States.

> "The States in which the largest number of schools have been reorganized are, in order, Ohio, Indiana, Michigan, with Pennsylvania and Massachusetts tied for fourth place. The States in which the ratio of reorganized to total high schools is highest are, in order, Alabama, Massachusetts, Vermont, Utah, New Hampshire, Michigan, Colorado, West Virginia, Arizona, Florida, Wyoming, and California. In all of these States more than one-third of the schools have been reorganized." 5

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5 "Secondary Education," Biennial Survey of Education 1926-28, U. S. Office of Education, Bulletin, 1930, No. 16, p. 148.

Table XVIII presents data to show the trend in enrollments since 1920 in reorganized and regular high schools. Out of 1,857,155 students who according to the United States Bureau of Education were reported to be enrolled in these public high schools, 178,332 pupils, or approximately one-tenth, were in 1920 attending reorganized schools. In 1930 approximately, one-third were enrolled in reorganized high schools. In 1930 out of the total number enrolled in the ninth, tenth, eleventh, and twelfth grades, 7.3 per cent were in junior high schools, 12.3 per cent in senior high schools, 14.3 per cent in junior-senior high schools, and 66.1 per cent in regular high schools.

TABLE XVIII

Number and Percentage of Pupils in the Last Four High School Years Enrolled in Reorganized and Regular Public Schools in 1920 and 1930

Type of School	1920		1930	
	Number Enrolled	Per cent	Number Enrolled	Per cent
Junior High Schools (9th Grade)	38,879	2.1	320,677	7.3
Senior High Schools (10-11-12th Grades)	63,630	3.4	543,813	12.3
Junior-senior High Schools (9-10-11-12th Grades)	75,823	4.1	628,908	14.3
Reorganized	178,332	9.6	1,493,398	33.9
Regular	1,678,823	90.4	2,906,024	66.1
Totals	1,857,155*	100.0	4,399,422	100.0

*Information was not available from all schools. Numbers enrolled were taken from "Biennial Survey of Education 1918-20," U. S. Bureau of Education, Bulletin, 1923, No. 29, Vol. 2, pp. 510-521 and "Biennial Survey of Education 1928-30," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 702-3.

It is safe to say that the 66.1 per cent largely represents small schools. The trend in reorganization being more obvious in the enrollment figures than in the number of schools previously discussed, indicates that reorganization is taking place more frequently in large than in small high schools.

Figure 3 on the next page, which is a graphic presentation of Table XVIII, shows clearly the progress which has been made in the reorganization of secondary education. The tendency in smaller school systems to consolidate into a single five or six year unit accounts for the gain made in the

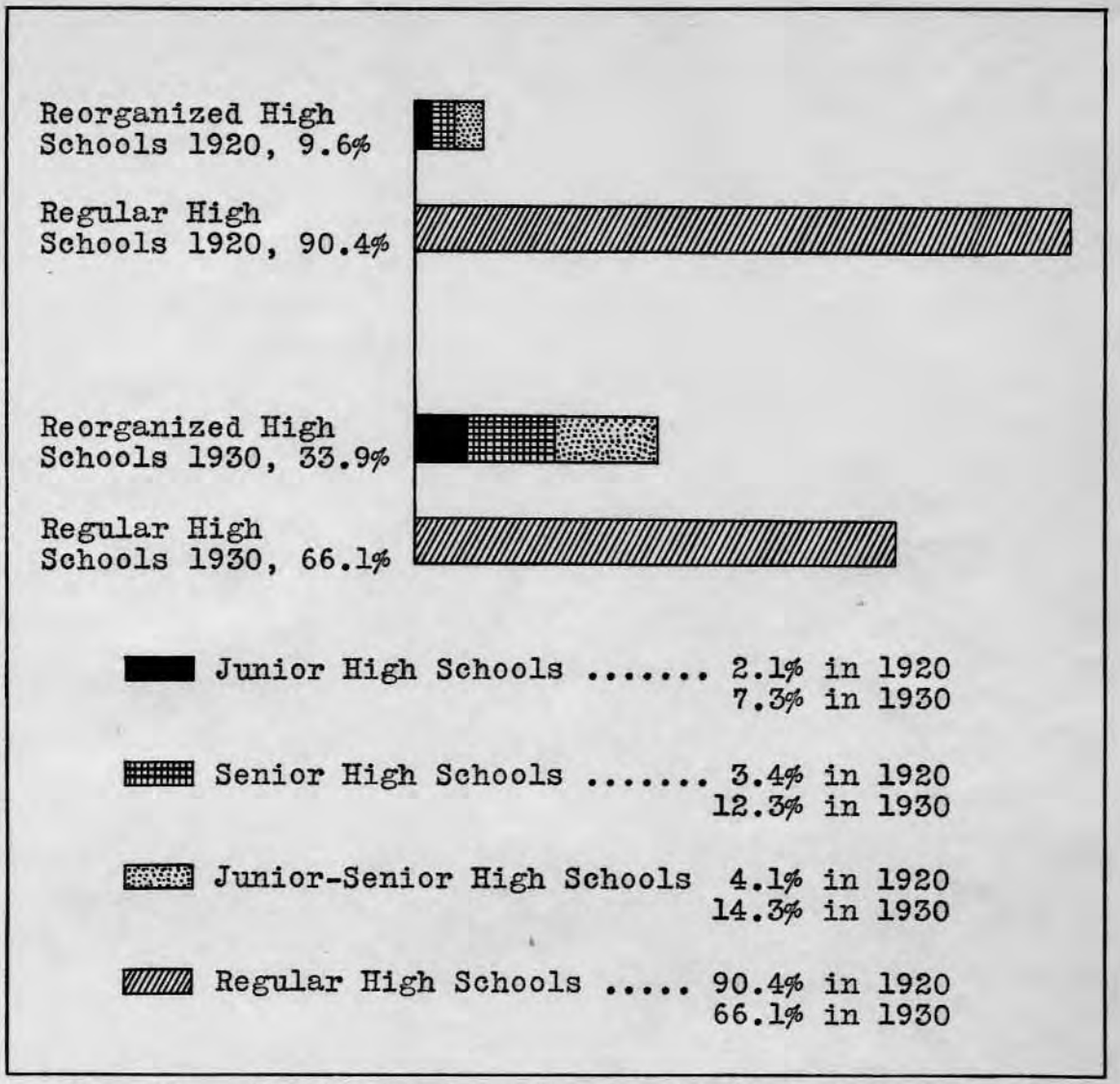

Fig. 3. - Per Cent of Pupils in the Last Four High School Years Enrolled in Reorganized and Regular Public Schools, 1919-20 and 1929-30.

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junior-senior high schools. There are however, more pupils of the four upper high school grades enrolled in three-year units than in six-year schools.

Most of the private secondary schools, both sectarian and nonsectarian have been slow to reorganize, or change from the 8-4 plan. The Catholic school system may be used as an illustration.

"But, what has been the reaction of the

Catholic school system to the junior-high-school movement? Naturally, a solution of the problem for the individual diocese will depend upon local conditions, the prevailing policy of public-school authorities as well as the inherent difficulties to be faced because of the parochically organized traditional eight-grade school. With the parochial character of our traditional school and its system of finance, a junior high school presents almost insuperable difficulties." 6

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6 Sister Josefita Maria, "Shall We Have a Junior High School?" The Catholic School Journal, August, 1933, p. 184.

Types of Administrative Units

In recent years there have been manifest elements of real reorganization in the type of education provided in high schools, but it is impossible to say how many systems have been reorganized except with respect to administrative units. Debates over reorganization have turned on the issue as to which one of the following plans should be adopted: 6-3-3, 6-6, 6-2-4, 7-1-4, 5-3-4, or some other grade combination, totaling twelve years, or fourteen years when the junior college is included.

"At present it is difficult to define definitely any one of the units--junior high school, senior high school, or junior college--in terms of years or of curriculum content. A common ground for the discussion of secondary school problems seems to be the fact that all these units are based upon the completion of an elementary school course, usually six years in length. In some school systems, the elementary period is followed by a two-year junior high school, leading into a four-year senior high school, followed by a two-year junior college (6-2-4-2 plan). In other systems, there is the six-year elementary school, a three-year junior high school, a three-year senior high school, and a two-year junior college (6-3-3-2 plan). A few school systems are organized on the 6-2-3-2 plan, that is, a six-year elementary school, a two-year junior high school, a three-year senior

high school, and a two-year junior college." 7

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7 The Development of the High-School Curriculum, Department of Superintendence, Sixth Yearbook, p. 243.

Thus there are many types of reorganized units, and others may appear. There is a growing trend toward the extension of the program of the junior high school to include four years of work.

> "The lengthening of the programs of both junior high school and junior college may ultimately lead to an entirely different plan.....i.e., the 6-4-4 plan which provides for six elementary grades, four junior-high-school grades, and four senior-high-school and junior-college grades. The 6-4-4 plan of educational reorganization has been advocated in different parts of the country by several well-known educators who believe that it is the best plan." 8

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8 The Development of the High-School Curriculum, op. cit., p.244.

The Junior College

The establishment of junior colleges in connection with public high schools has for the most part developed since 1910, but a few beginnings were made before that date. In 1907, the California legislature passed the first specific law for junior colleges. In 1915, James R. Angell wrote as follows:

> "We find in the state of California, as the result of special legislation, a state-wide system by virtue of which high schools are authorized to enter upon this junior-college plan. A considerable number of schools have already availed themselves of the opportunity thus offered, and experience is rapidly in the making as regards the advantages and disadvantages which attach to such an arrangement. In Illinois we have had for a dozen years or more at Joliet an interesting and highly instructive experiment going on before us on the same lines..... Within the last few years two of our great Chicago

high schools, the Lane and Crane technical schools, have developed vigorous junior-college organizations .....A junior-college curriculum has been also established this year in the Senn School. Still more recently at Grand Rapids and Detroit similar enterprises have been set afoot, and many other schools throughout the general territory of this Association have either made actual beginnings in this direction or are laying plans for such a beginning in the near future. There seems therefore to be no reasonable question that the movement has come to stay." 9

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9 J. R. Angell, "The Junior-College Movement in High Schools," School Review, Vol. 23, May, 1915, pp. 289-90.

The United States Office of Education has recently published a statement of the localities in which the two-year unit beyond the twelfth grade has become popular. It says:

"In addition to marked development in California the public junior college has been developed especially in the Mississippi Valley from Canada to the Gulf of Mexico. California leads with 30 public junior colleges and Iowa is second with 20. According to the latest lists there were 38 junior colleges accredited by the North Central Association and 13 by the Southern Association. Both of these associations maintain special committees for the study of junior college development. Iowa, Kansas, New Hampshire, Oklahoma, and Wyoming have, within the past two years, established standards for accrediting junior colleges....." 10

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10 "Secondary Education," Bulletin, 1930, op. cit., pp. 152-3.

In 1933, we find some of the above named junior colleges closed due to lack of funds caused by the business depression. Whether this will be temporary or permanent remains to be seen, but junior colleges are more needed now than ever before.

"If young people cannot get jobs, they go to school; and if they have finished high school they must go elsewhere. An unusual demand for labor depletes the high schools, as it did in 1916 and 1917. A business depression throws an unexpected increment into the tax-supported schools. If the movement which has been under way during the past

thirty years keeps on--and there is seemingly every reason to think that it will--then junior colleges, or the equivalent, must increase in number or else the state universities must take all comers." 11

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11 H. C. Morrison, The Inglis Lecture, 1933, "The Evolving Common School," pp. 35-6.

A recent court decision with regard to junior colleges recalls the famous Kalamazoo case of 1874 which settled the question of public high school funds.

"An important decision affecting the junior college was rendered in August, 1930, by the Supreme Court of North Carolina. This decision affirmed the right of the board of education in Buncombe county to operate a junior college as a part of the public-school system and to pay expenses of its operation from public funds." 12

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12 "Secondary Education," Bulletin, 1931, op. cit., p. 129.

The growth of the junior college from 1921 to 1930 is shown in Table XIX on the next page. Thus according to Doak Campbell, secretary of the American Association of Junior Colleges, there were in the United States in 1930, at least 436 junior colleges, enrolling 74,088 students. The number of schools has more than doubled since 1921 and the enrollment more than quadrupled. In 1930 there were approximately 178 public junior colleges and 258 private schools, but the public schools exceeded the private in the number enrolled. The public junior colleges are on the whole larger schools. In 1930 the average enrollment for the public colleges was 253 and 113 for private junior colleges. In 1921-22 the mean for public and private junior colleges was 121 and 56, respectively. The large enrollments in a few schools undoubtedly affect the

TABLE XIX

Growth in Number and Enrollments of Junior Colleges, 1921 to 1930

School Year and Authority	Total		Public		Private	
	Colleges	Enrollment	Colleges	Enrollment	Colleges	Enrollment
1921-22 Koos, Leonard V.: The junior college. Education Series, No.5. University of Minn.,1924	207	[1] 16,121	70	8,439	137	7,682
1926-27 Koos, Leonard V.: Recent growth of the junior college. School Review, April 1928	[2] 325	[3] 35,630	136	20,145	189	15,485
1927-28 Whitney, Frederick L.: The junior college in America. Colorado State Teachers College, 1928	382	[4] 44,372	146	24,777	236	19,595
1930-31 Campbell, Doak S.: Directory of the junior college. Junior College Journal, January, 1931	436	[5] 74,088	178	45,021	258	29,067

[1] A number of colleges did not report enrollment.
[2] Includes 18 junior colleges beginning operation 1927-28.
[3] Enrollments for 41 colleges are not included.
[4] Enrollments were not reported for ten colleges.
[5] Enrollments for 4 public and 6 private institutions were not reported.

Taken from the "Biennial Survey of Education, 1928-30," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 1, p. 128

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mean and make it somewhat misleading, nevertheless, the above figures clearly show a trend toward larger junior colleges.

Important factors or causes for the rapid development of junior colleges are given by Alexander Inglis, in his chapter "Secondary Education" as follows:

"This upward extension of the public high school

has been due to several factors, among which the most important are: (1) a great increase in the number of persons desiring and deserving an education beyond the high school; (2) the consequent overcrowding of many colleges; (3) the demand for facilities of higher education nearer the homes of pupils and not involving the expense of living away from home; (4) a need for better instruction in the earlier college grades; (5) changing conceptions of the functions of secondary and collegiate education." 13

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13 I. L. Kandel, Twenty-Five Years of American Education, p.264.

Thus, many are coming to the conclusion that the first two years of the American college very properly belong to the realm of secondary rather than higher education.

Homogeneous Grouping

Since the World War high schools have given much attention to homogeneous grouping to solve the problem of individual differences. There have usually been three ability groups, the X, Y, Z sections composed of superior, average, and dull pupils. The New International Year Book, 1930 says:

> "For a decade or more the movement had been toward grouping children so that those of equal or like ability would be together. The usual procedure was to consider the pupil's mental ability as determined by intelligence tests, his achievement as determined by standardized tests, and sometimes the teacher's judgment of him. This or similar plans were in operation in the great majority of school systems. Recent researches have served to cast doubt upon the validity of such methods of grouping. A few of the more progressive schools have abandoned the plan and in its place they emphasize the care of the individual, through smaller classes for pupils having difficulties and such remedial measures as are required. Taking schools as a whole there was still a strong tendency to group children so as to have at least three ability groups." 14

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14 p. 238.

Ability grouping has recently called forth many protests, much dissatisfaction and opposition. It is often argued that the system is undemocratic and stigmatizes the child. In speaking of intelligence tests as a basis of grouping, J. F. Messenger says:

> "The tests have proven valuable for both normal and abnormal individuals. If they are not used for more than they are worth they are very valuable in school work. Attempts have been made to segregate pupils according to intelligence rating, but the value of this segregation is at least doubtful. Many factors other than intelligence enter into success in life. The tendency to spoil those who are rated as superior and to discourage those who are rated as inferior is noticed at once. Children are very sensitive to caste distinctions and the attitudes they acquire more than offset the possible gain. Furthermore it is not at all certain that they actually learn more by being segregated. The social lessons which they get are undoubtedly bad for a democracy." 15

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15 J. F. Messenger, An Interpretative History of Education, pp. 334-5.

On the other hand, some strongly favor the plan of homogeneous grouping. It is, on the whole, still in the experimental stage. Whether the plan should aim for speed or enrichment with parallel or differentiated courses are problems not yet solved. This uncertainty is expressed by R. Pintner when he questions thus:

> "Shall the emphasis be placed upon rapid promotion or upon a broader and richer curriculum? Do these two aims necessarily exclude each other? Shall we not find that both can readily be realized? What shall be done with the superior child who is ready for high school at an age much below the average? Is he able to take part in the social life of the high school, and if he is, is it injurious or advantageous to him?" 16

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16 R. Pintner, Intelligence Testing, p. 371

Homogeneous grouping is usually administratively unfeasible in the small high school. When we remember that over fifty per cent of our high schools have less than one hundred pupils enrolled, we know that special curricular units are out of the question in those small systems.

Plans of Organization

Various plans of homogeneous grouping and of individual instruction have been invented to solve the problem of individual differences, and break the "lock-step" of ordinary systems of promotion. All of the various plans invented have advantages and disadvantages.

The general characteristics of Multiple Track Plans are ability grouping, with extra promotions, or curricular enrichment. The Baltimore Plan provided for ability grouping with speed and is a good illustration of this type of organization. A saving of one year was possible, because the seventh, eighth, ninth, tenth, eleventh, and twelfth grades could be finished in five years.

Individual instruction with enrichment was provided in the Dalton, Massachusetts High School in 1920, by means of minimum, medium, and maximum contract jobs, thus abolishing the rigid time schedule and daily recitations. By 1925 the Dalton Plan had been adopted by many high schools.

A compromise between individual instruction and the class method is found in the Batavia, New York Plan and in the Morrison Plan. In 1907 the Batavia Plan was inagurated providing for an extra teacher in each room of over fifty students

for supervised study. Thus retardation was decreased. The Morrison Plan provides for mastery in each subject of the curriculum. Pupils cover less, but learn more, bluffing ceases, failures are fewer, and problem cases are scientifically treated. This plan has been carefully worked out in the Laboratory School of the University of Chicago.

Articulation

Since 1890 there has been endless effort to make the elementary school, the high school, and the college pull together. Attempts have been made to bring into relation these three institutions, instead of jamming the high school into the space left between the elementary school and college.

The fact that large numbers of pupils do not enter high school and many leave soon after entering indicates malarticulation between elementary and secondary school. The junior high school has helped to bridge the gap between these two institutions.

The college entrance ideal has caused the high school to be viewed primarily in terms of college preparation. Alexander Inglis said:

> "In any event it is certain that preparation for college dominated the American secondary school throughout the nineteenth century. Nevertheless, it should be noted that the character of both institutions and of the relation between the two was a natural result of the selective conception. As long as the selective ideal dominated the secondary school and the college, preparation for the latter was bound seriously to condition the former. The result was a vicious circle. As long as preparation for college determined the character of the secondary school, the tendency was for those only to attend the secondary school who expected to go to college or who desired the kind of education typified by college prepara-

tion. Likewise, as long as those attended the secondary school who needed or desired the college preparation sort of education, that was the sort of education to be provided for them." 17

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17 I. L. Kandel, op. cit., pp. 266-7.

Since 1900 the trend has been toward a changed conception of the purpose of the secondary school, and we have ceased to consider it an institution merely for training leaders.

Secondary education is broader than college preparation. As early as 1890, Nicholas Murray Butler indicated that it is life preparation when he said:

> "By a careful study of the history and principles of education, coupled with the teachings of their own large experience, they should seek to devise that course of study and those methods of instruction that are best suited to the mental, moral, and physical development and culture of the boys and girls committed to their care. Nor need it be feared that in so doing they will interfere in any way with the preparation of their pupils for college work. For in education it is profoundly true that that which is intrinsically the best in any particular stage of development, is also the best preparation for that which comes after." 18

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18 N. M. Butler, The Meaning of Education, p. 233.

We have come to realize that the secondary school has important functions to perform in and of itself to the masses, and is no longer thought of merely as a means to an end to the few who enter college. In 1912, Julius Sachs indicated this trend as follows:

> "Despite the fact, then, that even to-day in many communities the public high school is valued primarily for its college preparatory course, there has been growing a conviction that the conception of the secondary school involves a wider, a more generous outlook than that of the equipment of a

small minority of the student body for the demands of the colleges. The work of the statistician has revealed to us that of the total number in attendance in our secondary schools an exceedingly small percentage enter college, a very considerable percentage have not intended to enter. The secondary school has not fulfilled its duty, unless it considers the needs of all who are ready to share in its opportunities." 19

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19 J. Sachs, The American Secondary School, p. 88.

The increased proportion of secondary school pupils in recent years who were not destined for college has to a certain extent reversed conditions. It is no longer a question of how the high school may best be articulated with higher education, but how the higher institutions may best be articulated with the secondary school. The fallacy of restricting the secondary school to college preparation may be seen from the estimates made by the United States Office of Education for 1928, which are:

> "Making allowance for duplication, it is now estimated that of an original 1,000 entering the public schools for the first time, 974 reach the sixth grade, 855 reach the seventh grade, and 768 reach the eighth grade. No data are available concerning the number of pupils who complete the work of the eighth grade.
>
> Of the original 1,000, the number entering the first year of the high school is 610, while 438 reach the second year, 321 reach the third year, 268 reach the fourth year, and 260 are finally graduated from high school.
>
> .....It is not possible to show survival rates by years beyond the high school at this time..... Of the original 1,000 in 1918, the number entering college was 72, and the number graduated was 23. A conservative estimate for 1928 would indicate that 160 of the original 1,000 entered college and 50 were graduated." 20

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20 F. M. Phillips, "Statistical Summary of Education," U. S. Office of Education, Bulletin, 1930, No. 16, Biennial Survey of Education, 1926-1928, p. 434.

Of those who enter high school, approximately 43 per cent graduate; 62 per cent of those graduating from high school enter college; 26 per cent of those entering high school are destined for college. This means that 74 per cent of those entering high school are not primarily concerned with college preparatory work.

During the last decade, the higher institutions have attracted annually about the same proportion of secondary school graduates. The relative number of secondary school graduates who became college graduates decreased from 1890 to 1920. The ratio between high school graduates and college graduates is shown in Table XX.

TABLE XX

The Number of High School Graduates and College Graduates, 1890-1930

Year	High School Graduates	College Graduates	Per cent
1890	29,952	14,306	47.8
1900	73,953	25,324	34.2
1910	125,772	34,178	27.2
1920	255,068	47,326	18.6
1930	643,166	122,484	19.0

The college figures were taken from "Statistical Summary of Education, 1929-30," United States Office of Education, Bulletin, 1931, No. 20, Vol. 2, p. 7. The high school figures were taken from page 7 of this thesis.

Thus in 1890 the ratio of high school graduates to college graduates was approximately 2:1 while in 1920 and 1930 it was approximately 5:1.

There have been a number of national committees on college

entrance requirements. The first one of importance was the Committee of Ten of the National Education Association. With reference to requirements for admission to college, the committee recommend:

> "In order that any successful graduate of a good secondary school should be free to present himself at the gates of the college or scientific school of his choice, it is necessary that the colleges and scientific schools of the country should accept for admission to appropriate courses of their instruction the attainments of any youth who has passed creditably through a good secondary school course, no matter to what group of subjects he may have mainly devoted himself in the secondary school." 21

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21 Report of the Committee on Secondary School Studies, (Committee of Ten of the National Education Association), U. S. Bureau of Education, 1893, p. 52.

A spirited discussion was called forth by this report. It did much to stimulate thinking, but it did not result in uniform admission requirements. Another attempt was made in 1895 to adjust the relations of secondary schools and colleges. The Committee on College Entrance Requirements presented its report in 1899. It aimed to establish college preparatory norms in secondary school subjects. In 1910 another committee was appointed by the National Education Association to consider the problem of articulation. The report was presented in 1911 which said that the quantitative requirements should be fifteen units.

> "Of the total fifteen units, not less than eleven units should consist of English, foreign language, mathematics, social science (including history), natural science, or other work conducted by recitations and home study. The other four units should be left as a margin to be used for additional academic work or for mechanic arts, household science, commercial work, and any other kind of work that the best interests of the student appear to require." 22

22 C. D. Kingsley, "Report of the Committee of Nine on the Articulation of High School and College," Proceedings of the National Education Association, 1911, p. 563.

Recently the matter has again come up for consideration. College entrance and articulation are still in evolutionary stages.

> "A movement was started at the 1930 meeting of the Association of Colleges and Secondary Schools of the Middle States and Maryland for a comprehensive study of college entrance requirements and selective processes. It is contemplated to secure the cooperation of other regional associations to the end that there may be appointed a commission which will give the problem of college entrance the careful and thorough scrutiny which it needs." 23

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23 "Secondary Education," Bulletin, 1931, op. cit., p. 134.

Since 1924, the trend in the units required for college entrance has been as follows:

> "The number of units in five subject fields required for entrance by the institutions is affected more by the region in which the institutions are located than by either the size or type of institution. Since 1924 there has been a tendency to increase the number of units of English required for admission. The same tendency is discernible to a lesser degree in the field of the social studies. No trend since 1924 is discernible in the requirement in natural science. However, in mathematics and foreign language there has been a pronounced downward trend since 1924 in the number of units required for college entrance. There has been a more striking reduction in the foreign-language requirement than in the requirement for mathematics. The number of institutions which have increased since 1924 the number of commercial-industrial-vocational units that will be accepted for entrance is almost exactly the same as the number which have decreased it. Prior to 1924 four times as many institutions had increased the maximum number of units allowed for these subjects as had decreased it. It appears, therefore, that since that date the tendency to decrease the maximum has grown more rapidly than the tendency to increase it." 24

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24 P. R. Brammell, "Articulation of High School and College," U. S. Office of Education, Bulletin, 1932, No. 17, National Survey of Secondary Education Monograph No. 10, pp. 91-2.

The effect of college entrance requirements has been to

cramp and narrow secondary school teaching. A premium is put upon adaptation and adjustment to a standard requirement. The same dwarfing effect results from college admission examinations. Spontaneity and individuality in regard to that which is important and valuable in a child's education are frequently overlooked in preparing for entrance examinations. E. E. Brown in 1924 stated the advantages of the accrediting system, as follows:

> "It would be hard to overestimate the good already accomplished by the accrediting system, in spite of all defects. It has given to communities a means which had been lacking, of discovering the deficiencies, and likewise the excellences, of their schools. It has greatly aided the better principals and teachers in their efforts to maintain high standards of scholarship. It has quickened the intellectual life of schools and of whole communities, by the immediate touch of university ideals." 25

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25 E. E. Brown, op. cit., pp. 376-7.

Thus, entrance requirements, entrance examinations, and accrediting systems decidedly effect the work of the secondary school.

Summary

Before the World War the traditional four-year high school was almost unquestioned and, therefore, practically universal. The reorganization movement, largely since 1915, resulted in the downward and upward extension of the high school, so that we now have junior high schools, senior high schools, junior-senior high schools, and junior colleges. This movement has not been confined to any one section of the United States, but public schools have been reorganized much more frequently than private secondary schools, and large high schools more commonly

than small schools. The three-year junior high school and three-year senior high school are popular in large cities, while the six-year junior-senior high school is more often found in small school systems. The percentage of reorganized schools has been steadily increasing, so that by 1930, approximately one-fourth of all public high schools were reorganized schools, and about one-third of the pupils of the ninth, tenth, eleventh, and twelfth grades were enrolled in reorganized schools, while in 1920 only one-tenth were not attending the regular four-year high school.

There are many types of administrative units such as the 6-3-3 plan, the 6-6 plan, the 6-2-4 plan, the 7-1-4 plan, the 5-3-4 plan, and other grade combinations. There has been a growing trend toward the 6-4-4 plan.

The establishment of junior colleges in connection with high schools has been developed since 1910, with especially marked development in California and the Mississippi Valley. The number of junior colleges has more than doubled since 1921 and the enrollment more than quadrupled. In 1930, the Supreme Court of North Carolina ruled that junior colleges may be supported from public school funds, and the tendency is to conclude that the first two years of the American college very properly belong to the realm of secondary rather than higher education.

During the last fifteen years much attention has been given to homogeneous grouping, commonly with X, Y, Z, ability sections composed of superior, average, and dull pupils. Taking schools as a whole there is still a strong tendency toward

homogeneous grouping, but recently doubt has been cast upon the value and validity of such methods, and a few progressive schools have abandoned the plan. The whole idea is still in an experimental stage, with many related problems yet unsolved. Whether homogeneous grouping should be accompanied with speed or enrichment is still a controversial question.

Since 1890 much effort has been expended in improving the articulation between elementary school, high school, and college. Junior high schools and junior colleges have helped to bridge the gaps, and we have come to realize that secondary schools have important functions to perform in and of themselves to the masses. Since 1900 the trend has been away from viewing the high school primarily in terms of college preparation in the training of a few leaders, for approximately 75 per cent of those entering high school are not concerned with college preparatory work. In 1892, 1899, 1910, and 1931 questions relating to articulation and college entrance requirements were discussed by national committees, but many of the problems remain in an evolutionary stage.

CHAPTER IV

PROGRAMS AND CURRICULA

PROGRAMS AND CURRICULA

Traditional Influences

The influence of college entrance requirements on the high school curriculum has been out of proportion to the relatively few pupils entering college. This influence has dominated in spite of the fact that it was long ago realized that college preparatory work if not followed by college education was unsatisfactory for most pupils. The academic tradition of preparation for a higher institution is more dangerous in the small than in the large high school.

> "In the high school enroling one hundred or fewer pupils, the curriculum is almost completely dominated by the entrance requirements of the local colleges. This condition may be attributed to two chief causes. The first is tradition in the form of the requirements themselves. American secondary education was originally designed solely to prepare for entrance to college, and this condition tends to perpetuate itself. The second cause may be found in the teachers and principals of these high schools. They, themselves, are products of traditional high schools. They have received traditional training in traditional colleges. Naturally, they tend to continue these traditions. The requirements of the colleges are definite. It is far easier to meet them and thereby serve the comparative few who will go to college than it is to formulate a curriculum which will meet the needs of the majority who are not college-bound." 1

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1 The Development of the High-School Curriculum, Department of Superintendence, Sixth Yearbook, pp. 116-17.

Conservatism has perpetuated the traditional subjects, and might continue to do so even though there were no college entrance requirements.

Difficulty has been experienced in meeting the demands of broad community interests and college preparation. An adjust-

ment of these two types of demands has not yet been satisfactorily made, but there has been progress.

The Committee of Ten

One of the leading historical documents relating to high school curricula is the Report of the Committee on Secondary School Studies, appointed by the National Education Association in 1892. The committee did not limit itself to the mechanical relations between high schools and colleges, but appointed nine sub-committees to investigate the following departments: Latin, Greek, English, modern languages, mathematics, physics, natural science, history, and geography.

> "The committee lay great stress on the correlation of studies in secondary schools.....They endorse the unanimous recommendation of the sub-committees that the instruction in any given subject shall not be different for a student preparing to enter a higher institution from that for students who go no further than the high school.....They declare against a multiplicity of 'short information courses,' such as have been given in many high schools in times past.....Instead, they recommend that such subjects as are studied be pursued consecutively enough and extensively enough to yield that training which each is best fitted to yield." 2

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2 E. E. Brown, The Making of Our Middle Schools, pp. 382-3.

One of the important results of the work of the Committee of Ten was the formulation of four sample programs of study, as follows: The Classical Course, The Latin-Scientific Course, The Modern Languages Course, and The English Course. The general principles formulated by this committee were most valuable in the drawing up of subsequent courses.

In the light of present knowledge, the recommendations of

the committee can be criticized because of over emphasis on the study of foreign language, and failure to recognize the practical subjects.

Differentiated Courses

Toward the close of the nineteenth century a process of differentiation became apparent in high school curricula. More attention was given to the individual needs and preferences of students. In place of a uniform curriculum, high schools began to offer differentiated courses to meet the demands of students of widely different interests. Among the newer courses offered were the business course, the manual arts course, the household arts course, the agricultural course, and special vocational courses. This trend was evidenced in establishing new types of schools as well as in changes of studies and curricula. Alexander Inglis has given the causes resulting in differentiated courses, as follows:

> "During the last quarter of the nineteenth century a number of factors combined to foster greater differentiation than had previously obtained in the organization of curriculums: (1) the increased differentiation in college admission requirements; (2) the increasing strength of demands for the recognition of newly developed subjects of study; (3) the extension of the patronage of the public high school and the influx of pupils with different interests, capacities, and probable future needs; (4) the demands of vocational education and practical-arts education.....(5) increasing recognition of the principle of 'selection'." 3

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3 A. Inglis, Principles of Secondary Education, p. 663.

Formal Discipline

According to the faculty psychology prevalent in the early

nineties, courses of study were designed to affect, mature, and exercise the separate faculties, namely the memory, reason, imagination, and so on. In 1931 Arthur Gates said:

> "Less than twenty-five years ago college presidents and other educational authorities offered special school subjects as a means of improving most of the typical faculties. These quotations indicate points of view confidently held. 'Study of Latin trains the reason, the powers of observation, comparison and synthesis.' 'The pursuit of mathematics gives command of attention' and results in 'the strengthening and training of the reasoning powers.' 'For developing the character, strengthening the will and cultivating a wholesome temperament there is no discipline superior to athletics.' 'Will power and attention are educated by physical training. When developed by a special act, they are developed for all acts'." 4

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4 A. I. Gates, Psychology for Students of Education, p. 419.

The form of the activity was considered important and not its content. Subject matter was merely a means to an end. The important thing was to give pupils toughening exercises in developing the faculties.

The trend has been away from thinking of subjects primarily for their disciplinary value, but this theory is still held by a large number of teachers in justification of certain subjects in the high school curriculum, in spite of the fact that modern psychology has disproved it.

According to the theory of mental reactions the person as a whole deals with each situation. Learning is specific, and subject matter has become important. The changed conception is illustrated by Henry Morrison as follows:

> "If it is worth while for him to learn how to solve clock problems, then we should add a unit on clock problems and teach it. The value of such a

unit depends strictly upon its usefulness in attacking significant aspects of the environment and not upon its use as mental gymnastics. The process or principle taught in its application to actual experience is what is important to the development of thinking power and not its mechanical manipulation, on the one hand, nor its application to difficult and unusual problems, on the other." 5

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5 H. C. Morrison, The Practice of Teaching in the Secondary School, p. 251.

Value of the Content of the Curriculum

The activities and subject matter of the class room have tended to become like those actually encountered in life outside of the school room. Thus we have come to prefer genuine life issues, and have eliminated much useless subject matter. Ellwood Cubberley said:

> "Another plan proposed, and one that has proved very useful, has been to cut out parts of many of the subjects taught and to confine instruction to what is left. This has been done extensively. For example, we do not now teach a third as much arithmetic or grammar as we used to do; the facts in geography and the dates and battles of history are made much less prominent than they used to be; and bone and muscle and nerve physiology and the memorization of the Constitution have been displaced by hygiene and community civics.....The tendency has been to eliminate the puzzles and little-used information, and to cut out all that is not useful for modern life needs. We thus not only simplify the teaching of the subject but make room for other subjects as well." 6

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6 E. P. Cubberley, Public Education in the United States, p.444.

Differences in the content value of various subjects have become obvious. What study is of the most value becomes a much debated question, and can frequently be determined only in relation to the individual pupil. It is true that many subjects in the high school curriculum today cannot be justified on the

basis of direct values.

The Elective System

In order to provide the individual pupil with liberty to come in contact with numerous phases of experience, the elective system was developed.

As early as 1892 the Committee of Ten suggested: "Within the limitations indicated, as to continuity and extensiveness of studies in each of the broad divisions of knowledge, the committee would leave to the individual student and his advisers the largest possible freedom in the choice of studies." 7

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7 E. E. Brown, op. cit., p. 383.

About the same time, Dr. Charles W. Eliot, then president of Harvard University, advocated the elective system, in the broadest sense of the term.

Critics of the plan maintained that disintegration resulted from unconnected and unrestrained choice in studies and prevented unified effort. In showing the development of the elective system, E. A. Fitzpatrick in 1926 said:

> "Another aspect of this particular problem of the curriculum centered around a new shibboleth: the high school was to be the people's college. It would seem almost as if the ideal of Ezra Cornell were realized--an institution where anybody could learn anything. Consistently with the new ideal, the elective system was adopted with all its possibility of chaos, so that students themselves ignorantly determined their own curricula. Under the glamour of a great name and a great university, educational authorities abdicated in favor of student-whim known as election." 8

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8 E. A. Fitzpatrick, The Scholarship of Teachers in Secondary Schools, p. 10.

At present, students are given wide choice between curricula, and usually some choice to a lesser degree within curricula. The trend seems to be in the direction of wider, but wiser choices within curricula. Thus the pendulum has swung from a curriculum of great rigidity to one of extreme flexibility, and then to a curriculum with a number of constants.

Economic and Social Changes Affecting Curriculum

Economic and social changes since 1890 such as growing urbanization and the factory system causing industries to move from the home to the factory, have resulted in physical, vocational, social, civic, and cultural losses to young people. Those changes have removed from the home and community many opportunities for direct, educational experience. Those great shifts, in turn, have caused an extension in the high school curriculum, for formal education has been required to incorporate that which was previously in the realm of informal learning.

> "Schoolmasters did not deliberately decide that they would abandon the narrow, fixed curriculum which was sanctioned by tradition. They were compelled by the conditions of life around them to do something other than that which was done in this country as recently as a generation ago and is now done in countries where the social situation is less dynamic than it is in America. The evolution of the cosmopolitan high school is clearly illustrated in the experience of Cleveland, Ohio. The original secondary schools of that city were of the traditional academic type, devoted to the preparation of pupils for college and administering a classical mathematical curriculum. As the population of the city increased through the development of industries, the demand for a new type of curriculum began to express itself. This demand took an extreme form, as radical demands often do. Parents and pupils asked for courses as different as possible from those given in the traditional academic school. Cleveland organized a technical high school in response to this demand. It was

> the expectation of those who secured the establishment of this new school that it would give a practical education to boys who were going to become workers in the trades. Large numbers of pupils entered the new technical high school. What did they and their parents then demand? Nothing less than an all-inclusive education. The outcome of this experiment was, and is, that the technical high school of Cleveland is a cosmopolitan high school, responsive in a very high degree to the demand for educational opportunities in many lines. The technical school offers, in fact, almost all the advantages offered by the academic school and at the same time provides many elaborate courses in shop-work and related subjects which are unknown in the older school. What happened in Cleveland has been happening in many of the school systems in the country." 9

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9 C. H. Judd, The Inglis Lecture, 1928, "The Unique Character of American Secondary Education," pp. 20-2.

Trends in the Development of Subject Courses

On the next page is given Table XXI showing the total number of students in schools reporting to the United States Office of Education, and the number enrolled in certain high school subjects, together with the per cent which the latter figure is of the first, thus showing the relative development and trend.

In 1890, approximately 34 per cent of all students enrolled in public and private secondary schools were studying Latin. The popularity of the subject increased until 1900 when approximately 50 per cent of all students were in Latin courses. It declined slowly until 1910, after which it diminished rapidly until approximately 25 per cent was reached in 1928. However, Latin was still studied by more students than any other foreign language. Greek has tended to disappear from the secondary school program since 1900 when 24,869 students or 3.95 per cent

TABLE XXI

Students in Certain Studies in Public and Private Secondary Schools Since 1890

	1895		1900		1905		1910		1915		1922		1928	
%	Students	%	Students	%	Students	%	Students	%	Students	%	Students	%	Students	%
---	468,446	-----	630,048	-----	786,909	-----	817,653	-----	1,291,187	-----	2,335,623	-----	3,144,645	-----
.62	205,006	43.76	314,856	49.97	391,067	49.70	405,502	49.59	503,985	39.03	688,547	29.48	776,721	24.70
.41	45,746	9.77	65,684	10.43	89,777	11.41	95,671	11.70	136,131	10.54	391,781	16.77	480,120	15.27
.48	58,921	12.58	94,873	15.06	160,066	20.34	192,933	23.60	312,358	24.19	19,643	.84	62,184	1.98
---	-------	-----	-------	-----	-------	-----	5,283	.65	35,148	2.72	263,834	11.30	296,009	9.41
.32	22,159	4.73	24,869	3.95	17,158	2.18	10,739	1.31	10,671	.83	7,978	.34	8,165	.26
.77	245,465	52.40	347,013	55.08	444,092	56.43	465,375	56.92	636,016	49.26	949,181	40.64	1,133,930	36.06
.07	114,813	24.51	168,518	26.75	219,083	27.84	252,404	30.87	346,064	26.80	537,376	23.01	641,608	20.40
---	15,243	3.25	15,268	2.42	17,256	2.19	17,864	2.18	22,478	1.74	38,853	1.66	65,631	2.09
---	24,690	5.27	21,595	3.43	13,507	1.72	7,216	.88	5,767	.45	2,319	.10	1,994	.06
.36	103,768	22.15	118,936	18.88	123,282	15.67	120,910	14.79	184,426	14.28	213,237	9.13	224,233	7.13
.62	43,603	9.31	50,431	8.00	55,414	7.04	58,290	7.13	98,516	7.63	176,761	7.57	230,020	7.31
---	105,124	22.44	144,135	22.88	165,631	21.05	156,500	19.14	189,229	14.66	104,797	4.49	83,807	2.67
---	-------	-----	-------	-----	-------	-----	64,428	7.88	41,893	3.24	35,458	1.52	24,194	.77
---	-------	-----	-------	-----	-------	-----	133,627	16.34	118,193	9.15	89,936	3.85	50,611	1.61
---	-------	-----	-------	-----	-------	-----	-------	-----	85,339	6.61	201,834	8.64	417,913	13.29

TABLE XXI

Students in Certain Studies in Public and Private Secondary Schools Since 1890

	1890		1895		1900		1905		1910		1915		1922		1928	
Total number of pupils in schools reporting	Students 297,894	% -----	Students 468,446	% -----	Students 630,048	% -----	Students 786,909	% -----	Students 817,653	% -----	Students 1,291,187	% -----	Students 2,335,623	% -----	Students 3,144,645	% -----
Latin	100,144	33.62	205,006	43.76	314,856	49.97	391,067	49.70	405,502	49.59	503,985	39.03	688,547	29.48	776,721	24.70
French	28,032	9.41	45,746	9.77	65,684	10.43	89,777	11.41	95,671	11.70	136,131	10.54	391,781	16.77	480,120	15.27
German	34,208	11.48	58,921	12.58	94,873	15.06	160,066	20.34	192,933	23.60	312,358	24.19	19,643	.84	62,184	1.98
Spanish	-------	-----	-------	-----	-------	-----	-------	-----	5,283	.65	35,148	2.72	263,834	11.30	296,009	9.41
Greek	12,869	4.32	22,159	4.73	24,869	3.95	17,158	2.18	10,739	1.31	10,671	.83	7,978	.34	8,165	.26
Algebra	127,397	42.77	245,465	52.40	347,013	55.08	444,092	56.43	465,375	56.92	636,016	49.26	949,181	40.64	1,133,930	36.06
Geometry	59,781	20.07	114,813	24.51	168,518	26.75	219,083	27.84	252,404	30.87	346,064	26.80	537,376	23.01	641,608	20.40
Trigonometry	-------	-----	15,243	3.25	15,268	2.42	17,256	2.19	17,864	2.18	22,478	1.74	38,853	1.66	65,631	2.09
Astronomy	-------	-----	24,690	5.27	21,595	3.43	13,507	1.72	7,216	.88	5,767	.45	2,319	.10	1,994	.06
Physics	63,644	21.36	103,768	22.15	118,936	18.88	123,282	15.67	120,910	14.79	184,426	14.28	213,237	9.13	224,233	7.13
Chemistry	28,665	9.62	43,603	9.31	50,431	8.00	55,414	7.04	58,290	7.13	98,516	7.63	176,761	7.57	230,020	7.31
Physical geog.	-------	-----	105,124	22.44	144,135	22.88	165,631	21.05	156,500	19.14	189,229	14.66	104,797	4.49	83,807	2.67
Zoology	-------	-----	-------	-----	-------	-----	-------	-----	64,428	7.88	41,893	3.24	35,458	1.52	24,194	.77
Botany	-------	-----	-------	-----	-------	-----	-------	-----	133,627	16.34	118,193	9.15	89,936	3.85	50,611	1.61
Biology	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	85,339	6.61	201,834	8.64	417,913	13.29
Geology	-------	-----	25,866	5.52	25,300	4.02	20,596	2.62	11,251	1.38	7,590	.59	4,142	.18	2,816	.09
Physiology	-------	-----	131,304	28.03	169,844	26.96	171,850	21.84	128,836	15.76	128,343	9.94	122,277	5.24	85,258	2.71
Hygiene and sanitation	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	142,906	6.12	237,729	7.56
General science	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	413,466	17.70	532,302	16.93
Psychology	-------	-----	15,677	3.35	20,126	3.19	14,540	1.85	11,004	1.35	18,521	1.43	22,953	.98	32,455	1.03
Principles of teaching	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	21,689	.93	12,023	.38
Rhetoric	-------	-----	146,672	31.31	237,502	37.70	372,266	47.31	462,711	56.59	718,075	55.61	-------	-----	-------	-----
English literature	-------	-----	-------	-----	259,493	41.19	378,819	48.14	266,477	32.59	724,018	56.07	1,837,761	78.68	2,930,153	93.18
American history	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	358,912	15.37	559,511	17.79
English history	82,909	27.83	162,336	34.65	238,134	37.80	318,775	40.51	455,200	55.67	664,478	51.46	74,449	3.19	34,811	1.11
Ancient history	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	413,252	17.69	353,141	11.23
Medieval and modern history	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	361,938	15.50	369,139	11.74
World history	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	182,611	5.81
					132,863	21.09	140,459	17.85	130,740	15.99	206,738	16.01	444,306	19.02	206,784	6.58

American history																
English history	82,909	27.83	162,336	34.65	238,134	37.80	318,775	40.51	455,200	55.67	664,478	51.46	74,449	3.19	34,811	1.11
Ancient history	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	413,252	17.69	353,141	11.23
Medieval and modern history	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	361,938	15.50	369,139	11.74
World history	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	182,611	5.81
Civil government and civics	-------	-----	-------	-----	132,863	21.09	140,459	17.85	130,740	15.99	206,738	16.01	444,306	19.02	206,784	6.58
Civics, Community	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	412,418	13.11
Sociology	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	52,853	2.26	80,375	2.56
Economics	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	107,642	4.61	153,858	4.89
Problems of democracy	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	31,964	1.02
Agriculture	-------	-----	-------	-----	-------	-----	-------	-----	37,203	4.55	89,338	6.92	114,582	4.91	108,693	3.46
Home economics	-------	-----	-------	-----	-------	-----	-------	-----	33,866	4.14	163,826	12.69	321,136	13.75	494,002	15.71
Manual training	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	137,318	10.64	230,813	9.88	365,458	11.62
Drawing and art	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	297,498	23.04	347,411	14.87	571,631	18.18
Music	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	414,655	32.11	633,161	27.11	850,761	27.05
Arithmetic	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	248,249	10.63	75,835	2.41
Bookkeeping	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	42,431	3.29	289,005	12.37	328,205	10.44
Shorthand	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	208,216	8.91	273,566	8.70
Typewriting	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	303,535	13.00	470,949	14.98
Commercial arithmetic	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	32,536	1.39	211,192	6.72
Commercial law	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	20,614	.88	83,572	2.66
Commercial geography	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	37,300	1.60	144,525	4.60
Penmanship	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	-------	-----	37,188	1.59	22,172	.71

Compiled from "Statistics of Private High Schools and Academies, 1927-28," United States Office of Education, Bulletin, 1930, No. 16, Biennial Survey of Education 1926-1928 pp. 1108-1109, and "Statistics of Public High Schools, 1927-28," pp. 1057-8.

were enrolled, while in 1928 only 8,165 pupils or .26 per cent were enrolled. Both Latin and Greek will be affected by further changes in college entrance requirements.

French grew in favor from 9.41 per cent in 1890 until it occupied the attention of 16.77 per cent of all high school pupils in 1922, after which it declined slightly. In 1928 it was the most popular modern foreign language. German was the leading modern foreign language previous to the World War. Between 1915 and 1922 it became almost extinct, but since 1922 it has reappeared. Spanish held an insignificant place in the high school as late as 1910. It enrolled 2.72 per cent in 1915, 11.30 per cent in 1922, and 9.41 per cent in 1928. The decline of Spanish after 1922 may have been caused by the reappearance of German. Combining French, German, and Spanish, the modern languages have declined since 1915.

> "The reasons for the criticisms directed against much of the language work in the schools are: (1) inability on the part of many individuals who have studied foreign languages to make effective use of them; (2) the reversal of the dogma of formal discipline, which for so long a time served as an argument for the study of languages; and (3) the growing belief that true culture consists of large stores of information relating to contemporary life and of specific disciplines connected with current affairs, rather than of a training centered almost entirely in experiences remote from the direct concerns of the world today." 10

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10 C. O. Davis, Junior High School Education, p. 160.

Approximately one half of all pupils were engaged in studying algebra during the greater part of time from 1890 to 1915. The highest point was reached in 1910, when algebra was studied by 56.92 per cent of all secondary school pupils. It has declined since 1910, but in 1928 it was yet the most popular of

all mathematics courses. The heyday for geometry was also reached in 1910, when it was studied by 30.87 per cent of the pupils. In 1928, the number had fallen to 20.4 per cent. A little more than 2 per cent of the total enrollment were studying trigonometry both in 1900 and 1928. The value of mathematics has been enhanced in the minds of the public by the force of tradition. College entrance requirements have given it protection and influenced its place in the secondary school. In speaking of mathematics and modern and ancient languages, Harold Rugg gives the following prognosis:

> "The evidence concerning curriculum construction that has steadily accumulated in the past two decades justifies the important conclusion that beyond the eighth or ninth grade of the school these two kinds of technique will be provided for only a small proportion of the entire student body. Prolonged investigation of social needs in mathematics shows that all arithmetical, graphic, and statistical techniques needed for individual and social life can be mastered before the end of the eighth school grade." 11

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11 H. Rugg, Culture and Education in America, p. 344.

Astronomy and geology have almost disappeared from the high school program. In 1910 physics was studied by 14.79 per cent of the total enrollment, and in 1928 by 7.13 per cent. The drop is even greater than indicated since the proportion of students in the senior year has been increasing, and physics is usually a fourth year subject. Chemistry decreased from 1890 to 1905, increased from 1905 to 1915, and has decreased slightly since 1915. Physical geography showed a relative decrease from more than 22 per cent in 1895 to less than 3 per cent in 1928. Zoology was studied by 7.88 per cent of the pupils in 1910 and by less than one per cent in 1928. Botany has shown the same

trend, having occupied the attention of 16.34 per cent of the pupils in 1910 and of less than 2 per cent in 1928. Botany and zoology have been partly replaced by biology which made its appearance after 1910. In 1915 biology enrolled 6.61 per cent of the pupils and increased to 13.29 per cent in 1928. Physiology dropped from 28.03 per cent in 1895 to 2.71 per cent in 1928. The relatively large enrollment in physiology from 1895 to 1905 when it enrolled more students than any other science, resulted from temperance propaganda. The popularity of the subject was more apparent than real. Physiology has declined since 1905 and has been partly replaced by hygiene since 1915. Hygiene and sanitation increased from 6.12 per cent in 1922 to 7.56 per cent in 1928. The course usually provides health knowledge and aims to develop health habits with application in the lives of the pupils.

> "The content and teaching methods of health training and instruction have, during the past decade, traveled a long way along the road toward functioning efficiently. While for fifty years and more there has been in the public schools a subject on the program of studies known as 'physiology,' it has been aimlessly taught, and, so far as any practical results are concerned, was, before the World War, largely a failure. This failure was due to several factors. First, the content was not interesting to the average child, and many of the facts passed on to him were demonstrably false. Second, the method of teaching was wholly wrong. If there is any subject in the program of studies which must be taught by doing and by investigation rather than by children collecting facts from a textbook and pouring them back with considerable inaccuracy to the teacher, this subject is health. Information concerning the number, shape, and structure of bones and teeth is practically valueless if the possessor neither knows nor does anything to cause them to grow properly and firmly, or to retain form, strength, and position. The change in title from 'physiology' to 'health training and instruction' is an epitome of the change that has taken place in the content and teaching of the subject." 12

12 The Development of the High-School Curriculum, op. cit., p. 468.

Hygiene and sanitation are ofttimes reported with health and physical education. Since 1915 there has been a remarkable interest in the physical welfare of the child and a desire to care for the body as well as the mind. Physical training through games has replaced formal gymnastics. Willystine Goodsell in his chapter entitled "The Education of Women" says:

> "Although the period from 1880 to 1897 has been characterized by one somewhat overenthusiastic writer as 'a time of active growth and diversified expansion' in physical education, it is perhaps more true to the facts to say that this phase of education has, with some notable exceptions, been grossly neglected in the United States up to the time of the World War. The revelations of physical unfitness in a high proportion of the drafted army recruits startled the American public unpleasantly but efficaciously. During the last five years progress in the direction of affording girls and boys in the public schools better hygienic instruction, more effective physical training, and more thorough health supervision has proceeded apace. Between 1915 and 1918 eight states of the Union enacted laws providing for statewide physical education. Most of this legislation reveals an encouraging tendency to interpret physical education in a broad and comprehensive way. The New York program provides for medical inspection, instruction in the important facts of hygiene, and 'physical exercise as a health habit, including gymnastics, elementary marching, organized supervised play, recreation, and athletics.' The programs of the other states are no less comprehensive." 13

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13 I. L. Kandel, Twenty-Five Years of American Education, pp. 359-60.

General science appeared between 1915 and 1922. It enrolled 17.70 per cent in 1922 and slightly less (16.93 per cent) in 1928.

We see from Table XXI on page 122 that the following sciences are waning in popularity, namely: astronomy, physics, chemistry, physical geography, zoology, botany, geology, physiology, and general science, while the following are growing in relative

strength: biology, and hygiene and sanitation. According to per cent of enrollment, the science courses ranked in the following order of importance: general science, biology, hygiene and sanitation, chemistry, physics, physiology, physical geography, botany, zoology, geology, and astronomy.

Psychology and principles of teaching have occupied minor places in the secondary school in the period under discussion. The percentage enrolled in these two subjects has fallen, but in 1928, 1.41 per cent of the total enrollment were engaged in studying those subjects. Instead of acting as an adjunct to teacher training institutions psychology is tending to reappear in the secondary school as "social psychology, vocational psychology, racial, political, and business psychology". (See H. Rugg, op. cit., pp. 350-1.)

There has probably been no greater achievement in the development of the curriculum than that revealed in the larger emphasis on the vernacular. From 1895 to 1915 courses were offered primarily in rhetoric and English literature. About 1915 the tendency developed to group those offerings under the title "English". In 1928, the enrollment in English was 93.18 per cent of the total enrollment in schools reporting by subject. This does not include pupils enrolled in commercial English, speech, or dramatic work. Changes in the content of the English course are shown in the following quotation which gives first the dominant temper of the Committee of Ten (1893) and the Report of the Committee on the Reorganization of English (1913):

> "One is struck with the amount of emphasis placed upon the scientific and critical study of the English

> language and literature and the lack of emphasis upon composition and the reading of literature for its thought content and appreciation. Indeed, the emphasis is decidedly linguistic in nature..... 'The groundwork of composition will consist of those projects for speaking and writing which young people can be made to feel are worth while. Rhetorical theory will thus be made to serve as the handmaid of expression, not the occasion of it. Books for reading, likewise, will be selected because they are capable of producing a genuine reaction, not because they are illustrative of literary history'." 14

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14 H. G. Lull and H. B. Wilson, The Redirection of High-school Instruction, pp. 181-3.

From 1922 to 1928 English history, ancient history, and medieval and modern history lost considerably in proportional enrollment, while American history increased and world history was developing. Considering all five types of history we find 51.75 per cent of all students so enrolled in 1922 and 47.68 per cent in 1928. A comparison of these figures with earlier years in which the various types were combined into one "History" course, we find that this subject increased from 27.83 per cent in 1890 to 51.75 per cent in 1922. A slight decrease between 1922 and 1928 has already been mentioned, probably due to the fact that other social science courses were developing. In 1928 American history was the most popular history, enrolling over 17 per cent of all students. The content of the American history course has undergone changes as follows:

> "This subject--still the predominant social study--has changed from a subject largely military in character to one that emphasizes political history in the senior high school with some emphasis upon social and economic activities of the past. Recent history is obtaining increased attention. The treatment is still predominantly chronological in organization; the topical project and unitary method appear to be followed as yet by few teachers." 15

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15 The Development of the High-School Curriculum, op. cit.,p.296.

Civil government which was first reported in 1900 decreased from 21.09 per cent to 15.99 per cent in 1910, after which it increased until 1922 when it was studied by 19.02 per cent of the pupils, and in 1928 by only 6.58 per cent. Community civics was reported for the first time in 1928 and had an enrollment of 13.11 per cent, making the total for 1928, 19.69 per cent. Willystine Goodsell described the trend as follows:

> "Another strong trend in the direction of relating education more intimately to daily living is seen in the movement for better civic education in the schools. Although education for citizenship is no new demand in America, yet there has been profound dissatisfaction in recent years with the results achieved by the schools. This dissatisfaction received clear expression in the preliminary report of the Commission on Reorganization of Secondary Education, appointed by the National Education Association in 1911. The Commission declared that facts, theories, and activities that do not rather directly contribute to the student's appreciation of methods of human betterment have no claim to a place in a course in citizenship." 16

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16 I. L. Kandel, op. cit., p. 356.

The trend has been away from limiting civics to a study of the formal machinery of government, toward developing ideas of community enlightenment with regard to problems of government, industry, and social life.

The social studies provide contact for pupils not only with history and civics, but also with sociology, economics, and problems of democracy. The latter subjects are recent in origin. Sociology and economics were reported first in 1922 with enrollments of 2.26 per cent and 4.61 per cent respectively. These figures increased slightly to 2.56 and 4.89 per cent in 1928. In that year problems of democracy appeared with 1.02

per cent of the total enrollment studying that subject. Some schools have substituted for history, civics, sociology, economics, and problems of democracy, a single broad department called the social sciences. In order to deal intelligently with the rapid developments in social, economic, and political life the social sciences are tending to occupy increasing attention in the secondary school curriculum.

The study of agriculture, which was first reported in 1910, has been diminishing slightly in relative strength since 1915. In 1928 it enrolled 3.46 per cent of all students. W. Thomas Woody, in his chapter entitled "Vocational Education" says:

> "Extension of instruction to the secondary school in any branch of domestic art was slow and came about only through the newly created types of schools, the manual training, technical, vocational, and cosmopolitan high schools. In 1901 Wisconsin provided by law for county agricultural high schools which were to teach domestic science. The next fifteen years saw great advancement of the idea in secondary schools." 17

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17 I. L. Kandel, op. cit., p. 286.

The Smith-Lever Act of 1914 and The Smith-Hughes Act of 1917 provided federal subsidies for the extension of courses in agriculture, home economics, and vocational education. Home economics enrolled 4.14 per cent in 1910, increasing rapidly during the next five years. In 1915 the per cent was 12.69; in 1922, 13.75 per cent; and 15.71 per cent in 1928. In recent years separate home economics courses have appeared such as foods, clothing, home making, home nursing, millinery, and cafeteria management. Manual training increased slightly from 1922 to 1928, or from 9.88 per cent to 11.62 per cent. The

manual training courses of today are frequently allied with vocational subjects such as carpentry, cabinet making, printing, electricity, sheet metal, foundry, machine shop, pattern making, jewelry making, automobile repair and shop management.

In 1922, 14.87 per cent of the high school pupils were studying drawing and art, while in 1928 the percentage had increased to 18.18. Recently the arts of form, design, and color have received increasing attention largely because of a keener realization of their importance in life generally, and also because of their relation to household and industrial arts. Art courses tend away from training in imitation toward stimulating creative expression and developing appreciation. Music was more popular than art in 1928, having an enrollment of 27.05 per cent. More effective instruction is being provided annually in vocal and instrumental music, in which technique is no longer mastered at the expense of musical appreciation. Both art and music will undoubtedly grow in value as the hours of leisure at the command of the average individual tend to increase.

In 1922, 12.37 per cent were studying bookkeeping, and in 1928, 10.44 per cent. The figures for shorthand were 8.91 and 8.70; for typewriting, 13.00 and 14.98; commercial arithmetic 1.39 and 6.72; commercial law .88 and 2.66; commercial geography 1.60 and 4.60; penmanship 1.59 and .71. These figures show that bookkeeping, shorthand, and penmanship are declining, while typewriting, commercial arithmetic, commercial geography, and commercial law are growing in relative importance. In 1928 the order of courses according to popularity was as

follows: typewriting, bookkeeping, shorthand, commercial arithmetic, commercial geography, commercial law, and penmanship. Besides the above mentioned subjects, recently courses have been offered in retail selling, salesmanship, business organization, business forms, and office practice.

The subjects shown in Table XXI page 122 are grouped and summarized in Table XXII on page 133. For example, the statistics for Latin, French, German, Spanish, and Greek are added to show that the percentage of secondary school students enrolled in foreign languages in 1890 was 58.83 per cent of the total number of students in public and private secondary schools, assuming that there were no duplications. Even if a few students carried two languages, the figures still indicate the relative strength of languages in comparison with mathematics, science, English, etc. The trends are shown as follows: languages grew from 1890 to 1910 and have diminished since 1910; mathematics was extended until 1910 and has shown decay since that time; science showed fluctuations between 1890 and 1910, but has decreased since that year; English has vacillated from time to time; social studies, practical arts, art and music, and commercial departments have on the whole been augmented. Reading Table XXII vertically, we find that mathematics was the outstanding subject in 1890; in 1895 science took first place; in 1900 mathematics and science were practically of equal importance; in 1905 English reached the high point; in 1910 mathematics again reigned supreme; in 1915 English reached the pinnacle and has remained the dominant subject during the last decade. English is the only study quite universally required of all pupils in the secondary school.

TABLE XXII

Percentage of Students Enrolled in Each Department Based upon the Total Number of Students in Public and Private Secondary Schools Reporting Studies from 1890 - 1928

Department	1890	1895	1900	1905	1910	1915	1922	1928
Foreign Languages	58.83	70.84	79.41	83.63	86.85	77.31	58.73	51.62
Mathematics	62.84	80.16	84.25	86.46	89.97	77.80	65.31	58.55
Science	30.98	92.72	84.17	69.94	83.30	66.55	64.54	60.13
English		31.31	78.89	95.45	89.18	111.68	78.68	93.18
Social Studies	27.83	34.65	58.89	58.36	71.66	67.47	77.64	75.84
Practical Arts					8.69	30.25	28.54	30.79
Art and Music						55.15	41.98	45.23
Commercial						3.29	39.74	48.81

In 1910, emphasis, as measured by per cent of pupil enrollment in the various major departments, was in the following order: mathematics, English, foreign languages, science, social studies, and practical arts. In 1928 the order was English, social studies, science, mathematics, foreign languages, commercial, art and music, and practical arts. The computations for 1910, 1915, 1922, and 1928 of Table XXII are shown graphically in Fig. 4 on page 134. The trends indicated agree with the following quotation:

> "Dr. Leonard V. Koos of the University of Chicago, who was the associate director in active charge of the National Survey of Secondary Education, says the following concerning the curriculum of the secondary school: 'The tendencies have been away from foreign languages and mathematics (college entrance subjects) and toward social subjects and physical education.' He reports that 'non-academic subjects, including fine arts and practical

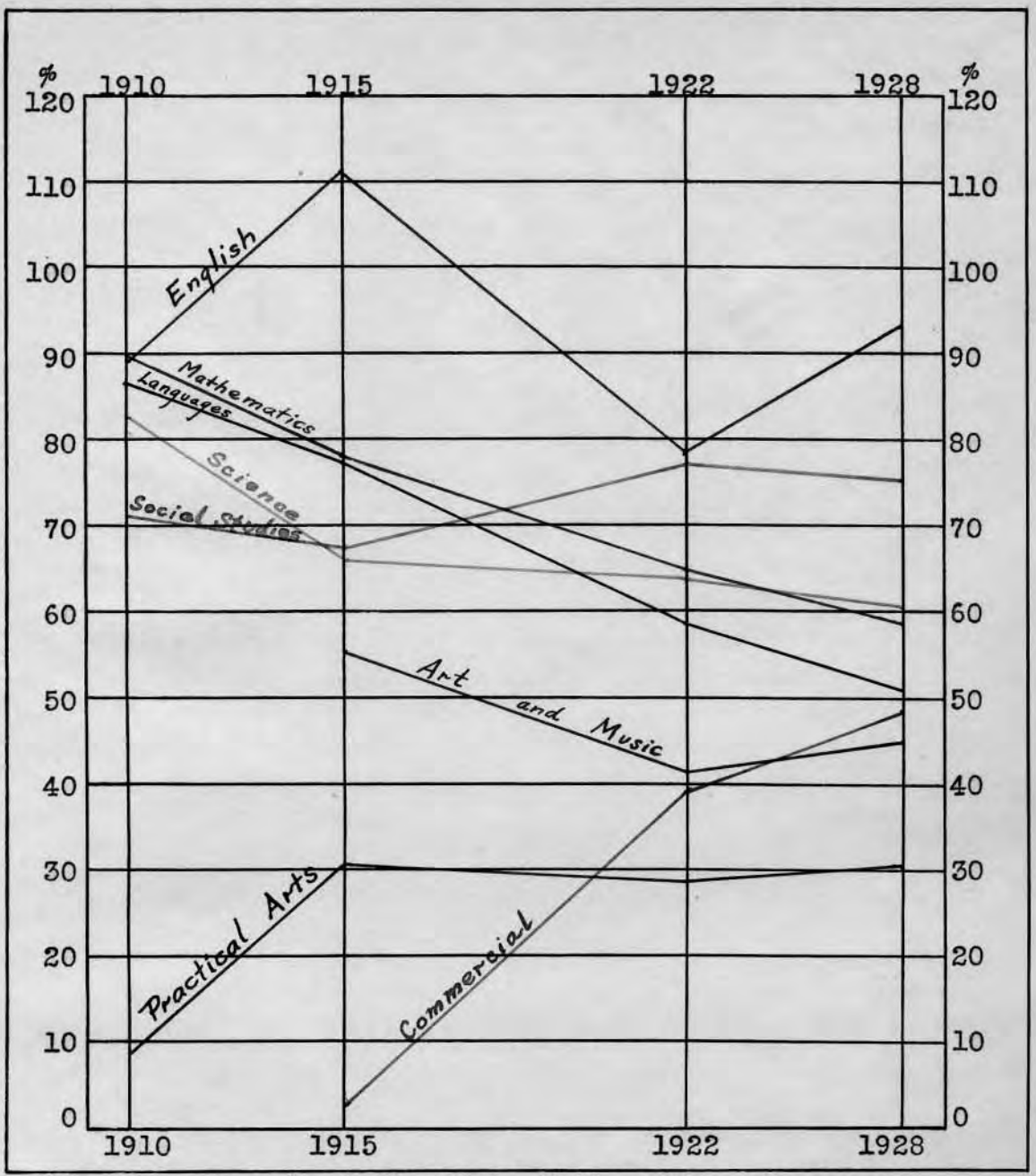

Fig. 4. - Trends in English, Mathematics, Languages, Science, Social Studies, Art and Music, Practical Arts, and Commercial Courses from 1910 to 1928

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arts, have shown a decided increase. In many schools non-academic subjects are now said to claim from a third to two-fifths of the pupils' time.'" 18

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18 The New International Year Book 1932, p. 250.

Comparison of Public and Private School Students in Subjects Pursued

A comparison of the curriculum of public high schools with that of private secondary schools is shown in Table XXIII on page 136. The figures indicate that 22 per cent of all students enrolled in public high schools were studying Latin in 1928, while 56.5 per cent of all private secondary school students were enrolled in Latin. For all foreign languages the statistics are 47.3 per cent and 101.7 per cent, respectively. An analysis of Table XXIII reveals that in 1928 there were larger percentages of students in public schools than private schools pursuing the following studies: physical geography, general science, biology, American history, world history, civil government, community civics, sociology, economics, commercial history, agriculture, home economics, manual training, drawing and art, bookkeeping, typewriting, commercial arithmetic, commercial geography, office practice and business training. Many of the subjects just enumerated may be called the newer or modern studies. Contrast that list with the many traditional subjects which are given more emphasis in private schools, namely: Latin, French, German, Greek, algebra, geometry, trigonometry, general mathematics, physics, chemistry, hygiene, sanitation and physical training, public speaking, English, business English, English history, ancient history, medieval and modern history, occupations, music, ethics, and religious subjects. Particularly noteworthy is the comparison in Latin and also in French. There was very little difference between public and private schools in the following subjects:

TABLE XXIII

Percentage of Students in Public High Schools and Private Secondary Schools Enrolled in Various Studies in 1927-28

Subject	Public	Private	Subject	Public	Private
Latin	22.0	56.5	American history	17.9	17.0
French	14.0	29.9	English history	.9	3.9
German	1.8	3.6	Ancient history	10.4	20.7
Spanish	9.4	9.0	Med. & mod. hist.	11.3	16.9
Greek	.1	2.7	World history	6.1	2.8
All languages	47.3	101.7	Civil government	6.7	5.8
			Civics, community	13.4	9.9
Algebra	35.2	45.8	Sociology	2.7	1.3
Geometry	19.8	27.4	Economics	5.1	2.8
Trigonometry	2.0	3.5	Prob.in democracy	1.0	.7
General math.		7.7	Commercial hist.	.2	
	57.0	84.4	All social stud.	75.7	81.8
Astronomy	.1	.1	Agriculture	3.7	1.1
Physics	6.9	10.4	Home economics	16.5	6.7
Chemistry	7.1	10.2	Manual training	12.5	1.5
Physical geog.	2.7	2.0	Occupations		.8
General science	17.5	10.2	All pract. arts	32.7	10.1
Zoology	.8	.8			
Botany	1.6	1.8	Drawing and art	18.6	13.5
Biology	13.6	9.9	Music	26.0	38.9
Geology	.1	.1	All fine arts	44.6	52.4
Physiology	2.7	3.1			
Hygiene, sanitation, phy.train.	7.8	9.8	Arithmetic	2.4	2.4
All sciences	60.9	58.4	Bookkeeping	10.7	7.7
			Shorthand	8.7	8.8
Psychology	1.0	1.1	Typewriting	15.2	12.7
Prin. of teach.	.4	.6	Com. arithmetic	7.0	3.9
Total	1.4	1.7	Commercial law	2.6	2.9
			Com. geography	4.8	1.7
Public speaking		3.4	Pen. & spelling	.8	.6
English	93.1	94.2	Office practice and bus. train.	4.4	
Business English		.2	All commercial	54.2	38.3
Total English	93.1	97.8			
			Ethics		1.2
			Religious subjects		10.6
			Total		11.8

Compiled from "Statistics of Private High Schools and Academies, 1927-28," United States Office of Education, Bulletin, 1930, No. 16, Biennial Survey of Education 1926-1928, pp. 1108-1109, and "Statistics of Public High Schools, 1927-28, pp. 1057-8.

Spanish, astronomy, zoology, botany, geology, physiology, psychology, principles of teaching, problems in democracy, arithmetic, shorthand, commercial law, penmanship and spelling. Leonard Koos made a survey in 1931 finding that in general, the differences in curriculum pointed to more conservatism in private than in public high schools. He says:

> "The evidence comparing the programs of studies in private and public secondary schools leans mainly in a single direction: the offerings in private schools as a group are unquestionably more traditional and conservative than are those of public schools. .....(1) The curricula ('courses of study') offered are more largely of the college-preparatory type than in public high schools. (2) The subjects and courses required of all students--the 'constants'--more often favor older subjects like foreign language and mathematics than the newcomers among high-school subjects of study.....(3) When the total offering was reduced to percentage distributions to the different subject-groups, private schools were found to favor foreign language and mathematics more than public schools, and public schools were found to favor science and the practical arts more than private schools..... Although it is admittedly not comprehensive of all relationships, the evidence at hand concerning private schools in Minnesota and elsewhere in the country gives little indorsement to the claim that private schools serve more often than public schools as centers of innovation and experimentation. Certainly, the comparison of the curriculum, one of the features of the school in which innovation and experimentation would early be reflected, disclosed no such tendency." 19

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19 L. Koos, Private and Public Secondary Education, p. 204 and p. 214.

According to Table XXIII page 136, the totals of the subject-groups point out larger percentages and therefore greater stress in public than private high schools on science, practical arts, and commercial subjects, while the private schools exceed the public in the percentage of their students studying foreign language, mathematics, English, social studies, fine arts, and religion.

Enrichment - Increase in Number of Courses Offered

Some conception of the growth in number of individual courses offered may be gleaned from Table XXI page 122. In 1890 The United States Commissioner of Education collected data showing the enrollments in nine subjects, namely: Latin, French, German, Greek, algebra, geometry, physics, chemistry, and general history. The high school curriculum at that time was composed almost entirely of those nine subjects and English, or a total of ten courses. Due to an enormous expansion after 1890, The United States Office of Education in 1928 gathered data for fifty-three subjects. (See Table XXIII page 136.) Besides those fifty-three subjects named on the public and private school lists, there were in 1927-28 over one hundred special courses pursued by secondary school students, according to Table XXIV, on the next page, and even this is not a complete list. "The expansion of the high-school program enables high schools now to report enrollments in about 250 different subjects." 20

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20 "Statistics of Public High Schools, 1927-28," Biennial Survey of Education 1926-1928, U. S. Office of Education, Bulletin, 1930, No. 16, p. 963.

In speaking of the enriched curriculum, Ross L. Finney said: "The high school program of to-day resembles that of a generation ago about as an automobile resembles an old-fashioned carriage." 21

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21 R. L. Finney, A Sociological Philosophy of Education, p. 111.

More and more courses are constantly being added and very few

TABLE XXIV

Miscellaneous Subjects Pursued by
Secondary School Students in 1927-28

1. Accounting
2. Advertising
3. Architecture
4. Arts and crafts
5. Auto mechanics
6. Aviation
7. Bacteriology
8. Banking
9. Basketry
10. Bohemian
11. Bookbinding
12. Bricklaying
13. Brickmaking
14. Broom making
15. Building trades
16. Business management
17. Cafeteria management
18. Cement work
19. Character study
20. Chinese
21. Clay modeling
22. Commerce and industry
23. Commercial art
24. Current history
25. Dancing
26. Design
27. Duplicating
28. Dyeing
29. Electricity
30. Etiquette
31. First aid
32. Foreign relations
33. Forestry
34. Forge
35. Gardening and landscape
36. General language
37. Greek drama
38. Hawaiian
39. Hebrew
40. Highways
41. History of painting
42. History of sculpture
43. Home decorating
44. Home management
45. Home mechanics
46. Home nursing
47. Horticulture and fruits
48. House planning
49. Institutional management
50. Interior decorating
51. Italian
52. Japanese
53. Jewelry
54. Journalism
55. Latin American History
56. Laundry
57. Leather work
58. Library
59. Lip reading
60. Local history
61. Logic
62. Machine calculating
63. Metal
64. Meteorology
65. Millinery
66. Mythology
67. Negro history
68. Newspaper
69. Norse
70. Oriental history
71. Philippine history
72. Philosophy
73. Photography
74. Picture projection
75. Plastering
76. Plumbing
77. Polish
78. Polish geography
79. Polish history
80. Polish literature
81. Porto Rican history
82. Pottery
83. Poultry raising
84. Printing
85. Rug weaving
86. Sculpture
87. Shoe repairing
88. Shop management
89. Social work
90. Stonework
91. Story writing
92. Surveying
93. Swedish
94. Telegraphy
95. Textile shop
96. Theology
97. Upholstering
98. Watch repairing
99. Weaving
100. Woodwork

Table XXIV was arranged from "Statistics of Public High Schools, 1927-28," Biennial Survey of Education 1926-1928, United States Office of Education, Bulletin, 1930, No. 16, pp. 1088 and 1092; also "Statistics of Private High Schools and Academies, 1927-28," pp. 1124-1125.

are ever subtracted. George S. Counts found: "Within the space of five years there were, according to reports, 471 changes in the subjects taught in the high schools of these 90 cities." 22

22 G. S. Counts, "Current Practices in Curriculum-Making in Public High Schools," Chapter VII of the Twenty-Sixth Yearbook of the National Society for the Study of Education, 1926, p. 138.

Of these changes 341 were in the nature of additions while only 130 were subjects dropped, a ratio of 2.6 to 1. Ninety-two subjects were involved in these changes. Regarding the tendency to make additions to the curriculum, Doctor Counts says:

> "While this practice has resulted in much needed enrichment of the narrow program of language and mathematics, it cannot be pursued indefinitely. Already the secondary-school curriculum exhibits weaknesses which may be traced to this constant addition of new materials of instruction. It is too often a mere aggregation of subjects, an unintegrated program of unrelated activities." 23

23 Ibid., p. 139.

It is easy to understand why school critics have been using the following words in criticism of the curriculum, such as: "thinning out", "narrowness", "superficiality", "sprawling miscellany", "fractionizing", "overlapping", "over-specialization", "congestion of courses". It is also not difficult to comprehend how this enrichment has brought about the problem of getting trained teachers in these courses, how it has added to

the cost of education, and the need of providing the student with educational guidance.

The list of one hundred subjects in Table XXIV connotes a vast sum of knowledge. Perhaps in some instances, a similar body of subject matter was found under different curriculum titles. Undoubtedly there is need for standardization of terminology in the titles of individual courses. Conversely, offerings with the same title frequently have dissimilar bodies of subject matter, due to such factors as differences in teachers, textbooks, and community needs. The tendency is to try to adjust the course of study to the needs of the community, and in some extreme cases to the needs of each individual student, which if carried to its logical conclusion, would require as many curriculums as there are school children.

Tendency to Turn Short Information Courses into General Courses

Educators feel that there are "too many subjects pursued for too short a time", or "enrichment at the cost of thoroughness" as well as narrow compartments of knowledge making it almost impossible for a student to discover interrelationships. In order to establish unity and integration there is a tendency to turn short information courses into broad general courses such as "General Science", "General Mathematics", "General History" or Social Science", "General Language". The trend is in accordance with the commonly accepted pronouncements of psychology "from the whole to the parts". The elementary course in any subject should concern itself with the large fundamental phases of the field rather than with detailed specialized portions.

"The rigid organization of subjectmatter into separate compartments of knowledge conceived as independent, logical categories is subversive of that integrated thinking which real life requires. How to secure this integration and the wholeness of view which depends upon it is one of the most pressing problems of the secondary school.....Significant efforts at integration, as yet only partially successful, have been made in the general fields of natural science, social science, and mathematics.".....

"Curiously enough, colleges have been in many instances unfriendly to 'general' courses in the high school. 'General Science,' for example, has been severly criticized by some of the college instructors who participate willingly in the conduct of a freshman composite course in the natural sciences. College teachers of history has been the chief opponents of 'General History.'" 24

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24 The Development of the High-School Curriculum, op. cit., pp. 57 and 255.

These general courses have sometimes been introduced under another course title, for example, a general history course is taught in the University of Chicago Laboratory School under the title "Survey of Civilization". "But note how popular courses entitled Survey of Civilization were suddenly to become! The old General History course was given another name and its scent promptly became fascinating, even in the nostrils of college history departments." 25

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25 H. C. Morrison, op. cit., p. 202.

A few pioneer schools have begun to offer a general language course in order to develop insight into the culture of other peoples, instead of by means of an intensive study of a limited number of classics. "In Rochester (New York), Detroit (Michigan), Richmond (Indiana), Los Angeles (California), and other cities teachers of language have seen the possibility of intro-

ducing pupils to the romantic field of comparative philology by means of a general-language course." 26

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26 C. H. Judd, op. cit., p. 37.

Calvin Olin Davis in 1925 indicated the trend toward a general mathematics course as follows: "For some time now, leaders among mathematicians have been advocating a course in general or introductory mathematics for the junior high school. Conspicuous among these reformers is E. R. Breslich of the School of Education, University of Chicago." 27

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27 C. O. Davis, op. cit., p. 199.

Unit Curriculum

Secondary school program and curriculum experiments are now being conducted which are decided departures from those commonly found. In the Laboratory School of the University of Chicago, under the Morrison Plan, there are some unusual course titles. For example, a pupil does not study English, he studies grammar, literature, composition, and spelling, because each of these courses is taught according to a particular technique, and with a definite objective of developing insight, appreciation, ability, or skill. The courses are divided into units.

> "From the beginning of the secondary period to the end thereof, every curriculum subject can be analyzed into its essential unit learnings. Pupil progress becomes then a matter of mastering the several units within the field of each curriculum subject studied. He does not 'study' geography or United States history or French or algebra or English literature--he masters the learning units within each of these fields." 28

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28 H. C. Morrison, op. cit., p. 76.

"The units differ in extent, and they differ in their nature as we pass from type to type of teaching. In some subjects, of which the sciences are the best example, there will be many units in each list. In others, notably the language arts, there will commonly be but one fundamental unit in the list, with perhaps several accessory skills. Each such list of units, whether one or many, of necessity constitutes a course, but a given course has no necessary relation to a school year or part of year or other period of time-to-be-spent." 29

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29 Ibid., p. 610.

Scientific Curriculum Construction

The trend in the reconstruction of courses of study has been depicted by Harold Rugg as follows:

"I have sketched three movements for the reconstruction of the national educational system after 1890: first, the attempt of the various national committees to rebuild the subject curriculum which had been produced; second, the attempt of the students of the scientific study of education to reconstruct the curriculum more systematically; third, the beginnings of the educational revolution in new types of laboratory schools." 30

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30 H. Rugg, op. cit., p. 75.

Progressively more scientific means have been employed in making curriculum changes, such as analyses of pupil interests, social needs, job analyses, and activity analyses. Thus much useless subject matter has been eliminated. The trend from 1923 to 1928 is traced in the Sixth Yearbook of the Department of Superintendence, as follows:

"During these past five years, more thought has been given to the public school curriculum by teachers, principals, supervisors, superintendents of schools, and college specialists than during any other five-year period in our history. Hundreds of local school faculties have been at work studying the pur-

poses of education and the outcomes to be expected at various levels in terms of pupil attitudes, ideals, habits, and skills. Many scientific investigations have been conducted to determine what curriculum content is of greatest value, and to discover how children learn." 31

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31 The Development of the High-School Curriculum, op. cit., Forward.

Curriculum revision is now a regular duty of the teacher, but the selection of subject matter is not left entirely to the schoolmaster--the specialist has begun to play an important role. Progress in curriculum construction may be judged by the quantity and quality of the books on this subject which have been written recently.

> "Students of the curriculum have produced a number of outstanding books in the techniques of curriculum making. Important contributions to literature in this field from Bobbitt, Charters, Herap, Hopkins, and Williams have appeared within the last 10 years.....An important outcome of the curriculum movement has been the frequent revision of programs of study and of courses of study by States, cities, and individual schools. An inquiry sent out in connection with the national survey of secondary education brought responses from approximately 250 cities and schools in which important revisions are reported to have been made within the last five years.....In the course of study revisions there is apparent a disposition to secure the advantage of expert judgment without sacrificing intimate contact with the classroom. In an increasing number of cases the organization for revision is so set up as to give responsibility to both teachers and curriculum specialists." 32

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32 "Secondary Education," Biennial Survey of Education 1928-1930, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 1, pp. 131-2.

Relating the School to Life

Before 1900, the curriculum did not begin to meet the needs

of the child, nor the needs of adult life, because of its academic and college preparatory nature. In recent years, the tendency has been to relate the school to the activities and problems of the world outside of the classroom.

> "The burden of the foregoing comments, therefore, is that the curriculum throughout the past three generations in no wise spanned the gap revealed between the earlier school and society. To the present day the hiatus has persisted. Only during the past three decades, due especially to the concentrated attacks of students of the new biological concepts of growth, of the dynamic psychology (James, Dewey, Thorndike, Woodworth, Judd, and their colleagues), and of the scientific and experimental study of the curriculum itself has the gap been partially obliterated." 33

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33 H. Rugg, op. cit., p. 71

"School is life" has become the slogan in some quarters, and occupational and social usefulness becomes the criteria of what shall be taught. In physics, chemistry, and biology there has been a tendency to search out practical applications and greater correlations with the life of the pupil, and the well-being and progress of the community. The mathematics needed by shopkeepers, artisans, and homemakers is being incorporated into the curriculum. In grammar, analyses are being made to determine the errors which pupils make, and the necessary grammar to remove those errors is then taught.

Progressive educators believe that the secondary school curriculum of the future will not be a conglomeration of isolated courses in which the subject matter is logically arranged, but rather that there will be a new synthesis of knowledge, in which the content will be woven into broad integrated units. "It is possible to retain traditional titles and still reorgan-

ize the subject-matter under them, so as to take account of interdependencies of knowledge and connection of knowledge with use and application." 34

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34 J. Dewey, The Inglis Lecture, 1931, "The Way Out of Educational Confusion," p. 36.

When we compare the curriculum of today with that of 1890, we may well say that it was narrow, rigid, formal, theoretical, and it is now broad, flexible, functional, and related to life.

Summary

The influence of college entrance requirements on the curriculum, especially in the small high school, has been out of proportion to the relatively few college-bound pupils. An adjustment has not yet been made between community interests and the demands of colleges, but the tendency is toward meeting the needs of the community, rather than the ideas of academic universities.

In 1892 The Committee of Ten investigated nine secondary school subjects, and formulated four sample programs of study. The general principles formulated by the Committee were valuable in drawing up subsequent courses, but the programs of study may be criticized for the over-emphasis of foreign languages and under-emphasis of practical subjects.

Since the close of the nineteenth century, there has come a tendency to adapt curricula to the needs of all pupils from various walks of life. In place of a uniform curriculum, differentiated courses have been formulated to provide for widely different interests, and all courses have been somewhat revised

to provide for the spread of pupil abilities.

The faculty psychology, prevalent in the early nineties, considered subject matter merely as a means to an end. The theory of formal discipline is still held by a large number of teachers in justification of certain subjects in the curriculum, in spite of the fact that modern psychology has disproved it, but the trend is toward evaluating subjects according to their content. Puzzles and little-used information have tended to be eliminated, as we have come to prefer genuine life issues.

The early rigid course of study was modified by the elective system, which provided contact with numerous phases of experience. The extremely flexible curricula which were then developed, frequently resulted in disintegration and lack of unified effort. Courses of study with a number of constants were then devised, and the tendency is now in the direction of wider choice between curricula, and wiser choice within the curriculum.

Economic and social changes since 1890 have frequently resulted in educational loss to young people. Many opportunities for valuable, direct experience have been removed from the home and the community, so that the high school has been required to incorporate in its curricula, much that was previously in the realm of informal learning.

Marked changes have developed in the content of subjects, for example, English has tended away from the critical study of language, toward reading for thought content and appreciation; history changed from a subject largely military in character, to emphasis upon social, economic, and political

activities; civics, first limited to the formal machinery of National and State government, now stresses the affairs of community life.

In 1910, emphasis as measured by pupil enrollment in the various departments was in the following order: mathematics, English, foreign languages, science, social studies, and practical arts. In 1928 the order was: English, social studies, science, mathematics, foreign languages, commercial, art and music, and practical arts. Thus the tendency has been away from mathematics, and foreign languages toward social studies, commercial studies, art and music--in general, away from academic, toward non-academic subjects.

A comparison of public and private schools indicates that the latter are, on the whole, more conservative than the former. Public schools stress science, practical arts, and commercial subjects, while private secondary schools emphasize foreign languages, mathematics, English, social studies, fine arts, and religion.

The secondary school course of study has been tremendously enriched from constantly adding to, and by seldom subtracting from the number of subjects offered. Recently there has been a tendency to turn short information courses into broad general courses such as General Mathematics, General History, and General Language.

The Morrison Plan provides for the division of courses into scientific units, each with a definite objective. Scientific means, such as analyses of pupil interests, social needs, job and activity analyses, are being employed frequently by

educators in the elimination of useless subject matter, and in the general revision of the course of study.

Before 1900, the curriculum met neither the needs of the pupil, nor the needs of adult life, because of its college preparatory nature. In recent years, the trend has been toward relating the school more closely to life, by means of practical applications and correlations with the life of the pupil outside of the class room.

CHAPTER V

INSTRUCTION

INSTRUCTION

Development of Psychology as a Science

Since 1890, and particularly since 1900 there has developed a new psychology with a tendency to investigate and gain knowledge of the learning process by means of a scientific technique. Laboratory methods have been devised in which the objective measurement of mental processes has revealed hypotheses, theories, and laws which have caused the high school to become critical of its procedure. In his chapter entitled "Development of Method", W. A. Maddox says:

> "The work of Professors J. McKeen Cattell of Columbia University, E. L. Thorndike of Teachers College and C. H. Judd of the University of Chicago, and that of their associates and students have made possible in the last decade a scientific reevaluation of our heritage of theory from Comenius to Dewey. Professor Thorndike is, perhaps, more responsible than anyone for the growing use of statistical method in dealing with the problems of both school materials and classroom technique." 1

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1 I. L. Kandel, Twenty-Five Years of American Education, p. 163.

Modern psychology has contributed new laws of learning, and understanding of associated processes such as the part played by the glands, nerves, and internal organs.

> "Since 1900 there has accumulated a mass of scientific and artistic evidence concerning the basic role of emotion in human conduct. I need merely to refer to the epoch-making contributions of Sherrington, Cannon, Crile, Childs, Watson, Young, Kohler, and others, to call to mind a vast scientific literature on the problem.....Furthermore, we must note the increasing emphasis by the social psychologists upon the role of the integrated action of the nervous, glandular, and visceral systems in the generation of propulsive attitudes and mental patterns." 2

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2 H. Rugg, Culture and Education in America, pp. 227-8.

Development of Tests and Measurements

Within the past three decades teachers have come to use objective measurements precisely as the natural scientist uses instruments and apparatus to make precise measurements. Standard scales for judging achievement, intelligence, and special abilities, have been devised. These measuring sticks are not cure-alls for all educational ills, but when used advisedly they render large service. Many school systems have already established research departments in which the results of extensive testing programs are frequently used to direct school policy. Current literature convinces one that new tests, both mental and educational are becoming constantly more numerous. Teaching efficiency, student achievement and mentality, buildings and equipment, and textbooks are frequently judged by standard measuring devices.

Professor Thorndike gave great impetus to the scientific determination of acquired proficiency.

> "About 1900, Thorndike began to develop the techniques and typical instruments needed to make practicable the use of objective methods in measuring educational attainments in schools. To the energy and genius of this man we are indebted for most of the fundamental principles and the enthusiasm which have resulted in the rapid advance and spread of the use of educational measurements. Since Thorndike's invention of the educational scale, about 1908, the first forms of which were published in 1909 and 1910 by Thorndike and his students, the movement has been one of prodigious proportions." 3

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3 A. I. Gates, Psychology for Students of Education, p. 532.

Only recently have achievement tests and examinations been critically evaluated and radically modified in form and use.

The need arose from a realization of the unreliability of subjective estimates of educational accomplishment. Studies made by Johnson, Starch and Elliott, Kelly and Dearborn, and others showed the need of reliable, comprehensive appraisals of attainment. Standardized tests have to some extent fulfilled this need.

> "The purpose which an examination is intended to serve must be taken into account. For the measurement of stock of information and knowledge of facts, the evidence seems to support the statement that the new examination is more valid than the discussion type. For the measurement of other outcomes of instruction, the data available at present do not warrant the statement that the new-type examination is known to be superior to the traditional type. In other words each has its particular place and its special functions where it should be preferred to the other." 4

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4 C. W. Odell, Traditional Examinations and New-Type Tests, pp. 196-7.

Accomplishment in factual subjects is easier to evaluate than proficiency in aesthetic courses, but some testing has been done in art and music. Skill is comparatively easy to measure while appreciation is rather difficult, and technique for testing creative ability is rare. Due to the above classifications, there is great diversity of opinion as to the value of objective tests in the arts depending largely on whether one considers these subjects from the standpoint of skill, appreciation, or creative ability.

Intelligence testing was first inagurated by Binet and Simon in France in 1911, and adapted for use with American children by Terman by 1916. Not until the World War, when approximately one million men were given intelligence tests,

did the high school educator become familiar with the device. Since 1915, new and better tests have appeared which have been given to great numbers of school pupils, and to a variety of individuals. There is however, divergence of opinion regarding various theories of intelligence, and also regarding the validity of mental test results.

> "In the ten years since the War there have developed three well-defined positions in regard to intelligence testing, especially as applied to public-school children. Those who have been instrumental in developing the intelligence tests have in general assumed a very decided validity for the tests. They have asserted in effect that intelligence is an inherited quality and that it does not change.....Those who employed this procedure have made the assumption that intelligence can be measured, and is measured by tests that are now in existence. Directly opposed to the view just mentioned has been a conception that intelligence cannot be measured by any devices that are in existence at the present time. Those who advocate this view insist that even though it were possible to measure intelligence it would be a most dangerous procedure, for it would inevitably lead into an aristocracy on the one side and to unlimited discouragement and distress among those who made poor showings in the test. They, therefore, condemn unqualifiedly any attempt to make use of any intelligence testing in the public schools. There is a third group who have insisted that the intelligence tests as developed tend to measure environmental influences quite as much as they measure inherited capacities. This group would not condemn the use of the tests, but they do condemn the interpretations that have been placed upon the results." 5

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5 The New International Year Book 1928, p. 227.

The National Society for the Study of Education published a year book in 1928 entitled "Nature and Nurture, Their Influence Upon Intelligence", in which the third viewpoint above mentioned was most frequently favored. Thus the trend has been toward a belief that the pupil's I.Q. as measured by mental

tests is affected by environment, and that intelligence is only one of many factors making for success in school and life.

Special capacities or aptitude tests have been developed to determine musical, artistic, mechanical, locomotor, and other special talents. Tests of temperamental, volitional, and character traits are very complex, and have not advanced very far.

Individual Differences Recognized

One of the great values which has resulted from mental testing is an appreciation of the variation existing between individuals. A realization of individual differences has tended to cause instruction to be adapted to varying capacities. In his chapter on "Secondary Education", Alexander Inglis says:

> "The most noticeable changes in instruction are those which involve better recognition of the factor of individual differences. In 1900 secondary school instruction in any given subject was practically the same for all pupils regardless of their capacities and needs. A uniform and stereotyped methodology prevailed, for the most part determined by the needs of college preparation. Since that time there has been a growing tendency to organize content and method as far as possible in terms of the varying capacities and needs of the particular group of pupils concerned in any given class." 6

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6 I. L. Kandel, op. cit., p. 260.

We have recognized that individuals differ widely in all traits according to the Normal Curve, and that every personality possesses individuality. We have also made some progress in adapting methods in order to bring the potentialities of pupils into actuality. However, intimate contact between teacher and pupil is conditioned by the size of classes. Table XXV on page 157 shows the ratio between the number of teachers and number of

TABLE XXV

Showing the Average Number of Students to a Teacher in Public and Private Secondary Schools 1890 - 1930

Year		Public	Private	Combined Figures
1890	Teachers	9,120	7,209	16,329
	Students	202,963	94,931	297,894
	Average	22.3	13.2	18.2
1900	Teachers	20,372	10,117	30,489
	Students	519,251	110,797	630,048
	Average	25.5	11.0	20.7
1910	Teachers	41,667	11,146	52,813
	Students	915,061	117,400	1,032,461
	Average	22.0	10.5	19.5
1920	Teachers	97,654	14,946	112,600
	Students	2,342,340	184,153	2,526,493
	Average	24.0	12.3	22.4
1930	Teachers	213,306	22,014	235,320
	Students	5,465,932	309,052	5,774,984
	Average	25.6	14.0	24.5

The number of teachers was taken from Table XV, page 55.
The number of students was taken from Table VIII, page 28.

students. A close examination of these statistics reveals the fact that the theory of mass production has not left the realm of education untainted, for in 1890 there were 16,329 teachers with 297,894 students in public and private secondary schools, or an average of about 18 pupils per teacher. In 1930 the average had increased to approximately 25 students per teacher.

Figure 5, on page 158 indicates the trend in public high schools toward greater teaching load since 1910, when the most favorable ratio was reached, namely an average of 22 pupils. The 1930 average of 25.6 was the highest point reached since 1890. The same general trend since 1910 is found for private schools, but a comparison of public with private secondary

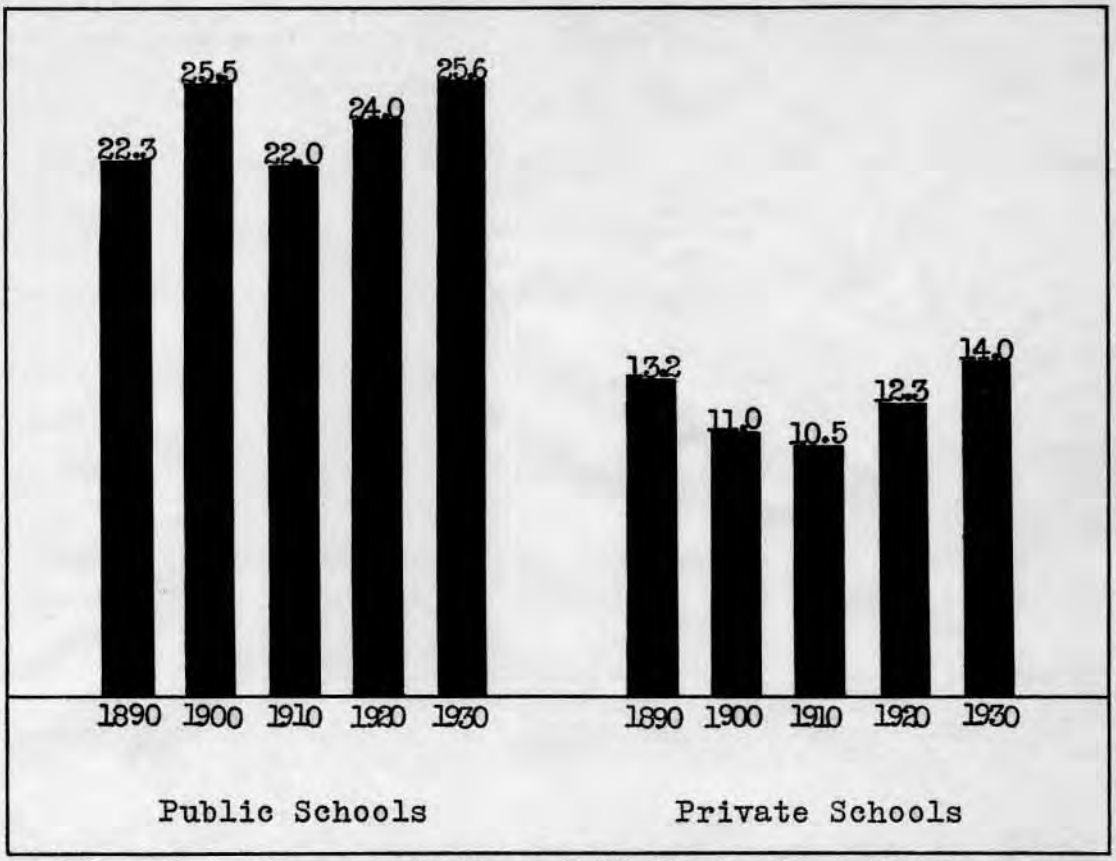

Fig. 5. - Average Number of Students to a Teacher in Public and Private Secondary Schools from 1890 to 1930

schools shows that the latter have a decidedly more favorable ratio, having had actually less than one-half as heavy a load as public school teachers in 1900 and 1910, and slightly more than half as many in 1890, 1920, and 1930. Thus we may conclude that the greater trend of method toward individuality has been in spite of increased teaching load and not to smaller classes.

There have been numerous experiments or attempts at radical change toward individual instruction, most of which have been short-lived. The small number of students per teacher, under the individual plan, makes the scheme very expensive and therefore prohibitive. A second disadvantage is

the fact that certain social values are lost when the class method of instruction is abandoned.

The problem of individual differences has been attacked by the advocates of the project method and the socialized recitation, which require pupil cooperation in organized activities, each pupil contributing according to his ability. The trend has been away from encouraging rapid learners to speed through high school. At present, it seems wiser to provide superior pupils with additional projects. In his chapter "Education of Exceptional Children" John F. Reigart says: "The advisability of merely doing the same things as other children in less time is questioned. At present, the trend seems to be in the direction of more intensive work, with supplementary studies in foreign languages, art, and science." 7

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7 I. L. Kandel, op. cit., pp. 324-5.

All types of exceptional pupils have come to be regarded as vital educational problems requiring scientific study and treatment.

Aims of Instruction

It is very difficult to show the trend in the aim of secondary education since 1890, because of the present lack of well-defined aims, at least for public secondary school instruction.

> "When we ask, either of the professional schoolman or of the enthusiastic layman, for a justifying philosophy of education or even for a common-sense statement of what is being sought by means of the elaborate machinery, we find much indefiniteness and consequently an alarming disagreement on what should be the details of the program.....Everything

must find meaning in the end toward which activity is aimed, and that end is clear in too few minds." 8

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8 T. H. Briggs, The Inglis Lecture, 1930, "The Great Investment," pp. 118-19.

The "Cardinal Principles of Secondary Education" formulated in 1918 by the Commission on the Reorganization of Secondary Education, appointed by the National Education Association gave seven objectives as follows: (1) health, (2) command of fundamental processes, (3) worthy home-membership, (4) vocation, (5) citizenship, (6) worthy use of leisure, and (7) ethical character. It is impossible to estimate how much of the apparent acceptance of these principles has been merely theoretical acceptance, but George S. Counts says:

> "In summing up my criticism of this attempt to formulate a theory of secondary education for twentieth-century America, let me repeat that it appears to rest upon no clearly recognized social theory. It consequently lacks color, direction, and substance... ...The Commission speaks of worthy home membership without a theory of the family, of vocational efficiency without a theory of labor, of the worthy use of leisure without a theory of play, of developing ethical character without a theory of human welfare, and of education for democracy without a comprehensive theory of society." 9

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9 G. S. Counts, The Inglis Lecture, 1929, "Secondary Education and Industrialism," pp. 59-60.

There has been a tendency to state the aims of secondary education in terms of (1) training for civic and social responsibilities, (2) vocational training for economic independence, and (3) personal development and power. Thus Alexander Inglis formulated three fundamental aims, namely: the Social-Civic Aim, the Economic-Vocational Aim, and the Individualistic-Avo-

cational Aim. In other words, progressive educators are aiming to prepare pupils for the problems of life and to the fullest development of personality.

More and more the center of educational gravity is being shifted from an emphasis upon knowledge and college preparation, to all-round development of the pupil, physically, mentally, emotionally, and morally. A movement began about 1900, in which serious effort was made to safeguard the health of high school students by means of medical and physical examinations. Further impetus to vigorous health supervision resulted from the World War, because of the defects discovered in drafted men. The mental health of the student is also safeguarded by the classroom teacher, principal, counselor, psychologist and psychiatrist. Diagnosis and remedial treatment of problem cases are frequently provided in order to help students to become emotionally and volitionally adjusted. The visiting teacher and the high school counselor are comparatively new innovations which aim to provide vocational, educational, and personal guidance. Counseling aims to develop the integration of personality.

> "Counseling, the bringing to bear of all school agencies in helping the individual student to solve his personal problems, is one of the most significant educational tendencies of the times. This emphasis on the personal side of education is of profound importance; it recognizes that mastery of subject-matter on the part of the student is of little value unless the student is being led to develop proper personal and social habits and attitudes in relation to the various social groups with which he daily comes in contact. Life is a personal matter, and, unless education helps to solve these personal problems in an adequate way, it is not doing its part in the building of a sound social structure. Counseling, in its broadest sense, touches every side of the student's life, and seeks to help him to develop

an integrated personality." 10

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10 The Development of the High-School Curriculum, Department of Superintendence, Sixth Yearbook, p. 213.

William H. Burnham says the building of a wholesome personality depends upon (1) the choice of worthwhile, absorbing, and suitable tasks, (2) opportunity to plan these tasks, and (3) freedom to carry them out. ("The Normal Mind" p. 212.) These important factors in personality development are being promoted in progressive high schools which have begun to see the value of a new type of creative education.

Moral ideals and right attitudes toward conduct are stimulated through a variety of curricular and extra-curricular activities.

> "The modern teacher as disciplinarian is not only concerned with the preventing or the correcting of misconduct, but also with the developing of attitudes toward ideals, with the building up of standards of conduct, and with training in self-control and self-direction. For the child is not only reciting an individual lesson; he is contributing his share to a group project or problem of some kind which involves, besides individual responsibility, responsibility to the group, cooperation with his classmates, and self-control." 11

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11 Sister Mary Jutta, School Discipline and Character, p. 26.

Psychological Method Replacing Logical Method

In the past each subject was taught as a logically organized branch of knowledge, in which the content was presented to the adolescent as it suggests itself to an adult brain, or to a specialist. The logical method is gradually being replaced by the psychological method in which the subjects of study are

organized with reference to the interests, capacities, and needs of the pupil and with regard to his experience and activities. In his chapter "Secondary Education" Alexander J. Inglis says:

> "A tendency observable is that which involves a reorganization of subject matter and method in terms of the laws of learning, instead of in terms of the scientific arrangement as viewed by the specialist. This is especially noticeable in community civics, general science, and introductory mathematics, but it may be observed more or less in most fields of secondary school instruction." 12

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12 I. L. Kandel, op. cit., p. 261.

The trend is toward reserving for higher education the study of subjects as logically organized fields of knowledge.

Value of Motivation

Large numbers of students come to high school without having developed abundant intellectual curiosity, interest, or ambition. Thus motivation becomes a factor of primary importance, and is manifested in the growing desire of educators to stimulate activity in such a way that the acquisition of knowledge will be pleasurable rather than painful. This does not mean that everything must be made easy, or that teachers should resort to sugar-coating. The trend is toward providing the student with purposeful tasks which are adjusted to his abilities so that he may pursue the activity successfully. This is the new conception of interest, effort, and success which is slowly finding its way into secondary schools. A. I. Gates contrasts the old viewpoint of "difficulty" with the new conception of "success" as follows:

"Inventories of achievement in problems in arithmetic, geography, civics and other school subjects show too large a percentage of failures. In part, this fact has been due to the belief that mere difficulty--hard issues, or challenges--are the most effective incentives to reason. It has been believed that the 'problem attitude' is stimulated by great difficulties, that children enjoy meeting the challenge which a hard task presents. What children really like is not insurmountable difficulty but the mastery of a real problem. They are not so much interested in merely facing a difficulty as in successfully overcoming a difficulty. Successful achievement, getting things done, feeling one's power--not annoying lacks and perplexing failures--these are the incentives to further accomplishment." 13

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13 A. I. Gates, op. cit., p. 410.

Immediate Values Replacing Deferred Values

There is a tendency to reorganize subject matter and method so that each unit of study will be of immediate value to the pupil. In pursuing a foreign language, for example, he should acquire ability to use the language for reading, writing, or speaking during the first year, instead of devoting his beginning study to language structure which has little value unless he studies the language for several years. Alexander Inglis said:

"The tendency of secondary education in the past has been to emphasize deferred values at the expense of immediate values, to emphasize in the organization of materials and teaching methods values which depend for their manifestation on education continued throughout the school or extended over a period of years. We are beginning to realize that pupils in large number leave school before the close of the full course and that for them the subordination of immediate to deferred values means decided educational loss." 14

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14 A. Inglis, Principles of Secondary Education, p. 713.

Formal Discipline and Transfer of Training

The old point of view was that learning must be hard and disagreeable in order to be effective. The mind was conceived as being composed of separate faculties which were to be trained by observation, collection and organization of facts. Transfer of training was assumed; for example, neatness achieved in writing entailed neatness in dress, and neatness in general.

Experiments of modern psychology regarding the integrative action of the human organism have disproved the older theories of discipline and transfer. Facts acquired in one situation are not generally applicable or transferable. Each situation or material requires specific adjustment.

> "Certain educational implications follow directly from the facts just reviewed: First, do not expect that training which has resulted in ability to deal properly with one situation, or material, or problem will enable a pupil to do equally well with another, even an ever-so-similar, situation. Second, take it for granted that some specific experience should be provided to enable pupils effectively to memorize, perceive, understand, be reasonable about, be courageous toward or otherwise adjust themselves to, a situation which differs from the ones they have been trained to meet.....Consider the situation. Remember that the amount of transfer from this situation to another will vary with the degree to which the two are similar, or with the degree to which they contain identical elements. Consider the response. Remember that the reactions set up in a situation are the only ones which may transfer. Unless they are developed, useful reactions cannot transfer." 15

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15 A. I. Gates, op. cit., pp. 434 and 436.

There is need for much assimilative material before generalizations take place. These principles have had important bearings upon the activities of secondary school pupils.

Functional Values Replacing Formal Values

A modern tendency in secondary education is the functional point of view, with decreasing emphasis upon formal values. Functional procedure is insisted upon in vocational and industrial courses, and it is further evidenced in the trend toward functional grammar, the direct method of learning foreign languages, and in substituting applied science, applied mathematics, and applied civics for abstract and theoretical values. In his chapter entitled "Secondary Education", Alexander Inglis says:

> "Not less significant is the tendency to reduce the emphasis on formal values and to emphasize the functional in content and method. This tendency is observable to a greater or less extent in almost every field of secondary school instruction. Examples of it are found in the substitution of functional for formal English grammar, in the direct method of teaching a foreign language, in general science and in the applied sciences, in introductory mathematics and applied mathematics, in community civics and modern methods of teaching history, and, of course, in all practical and vocational studies." 16

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16 I. L. Kandel, op. cit., p. 260.

Types of Teaching Recognized

In former days, Herbart's Five Formal Steps, of preparation, presentation, association, systemization, and application were quite uniformly applied to all types of teaching, regardless whether the object of the lesson was insight, appreciation, ability, or skill. Teaching all courses according to one method frequently resulted in non-learning or perverted learning. Recently there has been a recognition of vari-

ous types of teaching each of which demands a particular technique. Henry C. Morrison, of the University of Chicago says there are five teaching types, namely:

> "(1) The first is that which we shall denominate the science type. The objectives here are adaptations which are in form understandings of principles or processes in the relation of cause and effect. The method of learning is a process of reflection and rationalization.....(2) The second of the three fundamental types is what we shall call the appreciation type. The learning units here are in the form of adaptations in terms of which are valued those products of civilization which are and have been contributed by the fine arts, by religion, and by the best examples of moral behavior. Adjustment is in terms of value attitudes.....(3) The third of the types out of which arise the fundamental adjustments to environment we shall call the practical-arts type. The objective here are learnings which lead to the intelligent manipulation of appliances and molding of materials, and thence to adjustment to the mechanical environment.....(4) The form of teaching which is of primary importance, however, is that which we shall call the language-arts type--of primary importance because out of it arise the adaptations through which access is had to most of the materials of learning. It is the type through which the use of spoken and written discourse is learned, but it is far from being limited to the learning of language. In general, it applies to the learning of any method of receiving or expressing thought or feeling in the form of continuous discourse.....(5) There remains a field of learning, commonly found in the secondary school, in which the objectives are in the form of automatic facility, and the learning process is pure repetition until the adaptation sought becomes established. To this field we apply the term, the pure-practice type. 17

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17 H. C. Morrison, The Practice of Teaching in the Secondary School, pp. 92-97.

Morrison's inductive steps of exploration, presentation, assimilation, organization, and recitation apply only to the science type of teaching and in some degree to practical arts, but not to the appreciation, language arts, or pure practice types. English may be divided into units of grammar, literature, com-

position, spelling, and should be taught according to the technique of the science type, appreciation type, language-arts type, and pure-practice type, respectively.

The Unit Method of Instruction

In some progressive secondary schools language, science, mathematics, industrial courses, and the arts are not taught as subjects. The work is organized into comprehensive and significant units.

> "Under modern conditions there were schools in which the pupils did not study geography and history or even arithemetic as subjects. The school is no less concerned with having the children obtain a knowledge of these subjects, but it approaches the matter in a very different manner. The work of many schools was organized about 'activities' or 'units.' Several States had published courses of study based upon activities and units." 18

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18 The New International Year Book 1930, p. 237.

There are two rather distinct conceptions of the unit curriculum. Under the Morrison Plan, each unit has a definite objective, the mastery of which results in a change in the attitude of the individual, or in the acquisition of an ability or skill. Mastery is insisted upon so that the learning becomes permanent and can be used in the ordinary activities of life. Provision is made for measuring actual learnings or genuine adaptations. The following perversions are eliminated: (1) the get-by-attitude, (2) education is a matter of spending six-months, one-year, or four-year's time, (3) education is the acquisition of isolated information or so-much-ground-to-be-covered. Under the Morrison Plan, subject matter is definite-

ly identified and organized into units; each unit is taught according to a scientific method appropriate to its particular type or nature.

The second conception of the unit method of instruction attempts to bring about manual and intellectual coordinations by means of unifying the work around problems or projects, with systematic provision for drill upon difficult meanings and relationships. John Dewey and other members of the faculty of Teachers' College of Columbia University have given momentum to this new conception of teaching and learning. On page 238 of The New International Year Book 1930, we find:

> "Generally the name unit was applied to the subject matter that was involved in dealing with some topic that the pupil considered or may be led to consider as a valuable one. Such a topic is 'The importance of the fur trade in America to-day,' another 'The history of the development of the fur trade in America.'.....Activities as used in the course of study refer to such opportunities as exist for self-expression on the part of the learner. These include original composition either in prose or poetry, art in various forms, and construction. In addition to mental exercise, the pupil actually enters into some form of activity that ends in a product that may be observed."

Under The Project-Problem Plan, both curriculum and method, teaching and learning enjoy maximum flexibility. Advocates of the plan indicate that this technique coincides with the method of learning anything outside of the school room.

Developments in the Philosophy of Education

There was a lack of any thorough-going philosophy of education before 1900. The evolutionary hypothesis and the genetic method were contributions of the latter quarter of the nineteenth century. In speaking of the period between 1875

and 1900, Ellwood Cubberley says:

> "The influence of the new doctrine of evolution began to be apparent, and a conception of the child as a slowly developing personality, demanding subject matter and method suited to his stage of development, now began to take the place of the earlier pouring-in-of-information conception. Child study for a time almost monopolized the educational field. Books on the curriculum, on child life, and on methods of teaching were now published numerously."19

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19 E. P. Cubberley, Changing Conceptions of Education, pp. 42-43.

The evolutionary theory provided education with the doctrine of growth which was taken over by William James and later by John Dewey. It became the cornerstone of the theory of adjustment and a fundamental concept in the philosophy of the active school. In speaking of John Dewey, Harold Rugg says:

> "During the next quarter century he made a brilliant contribution to the theory of intellectual control of environment. The 'experimental method of knowing' was described. A suggestive outline of thinking as problem-solving was sketched. The concept that meaning comes through active response was clarified. The unified character of experience was definitely and voluminously illustrated. The characteristics of a democratic society were stated. Fundamental principles of educational reconstruction were phrased and illustrated. Tentative movements for reconstruction were launched. In fact, much of the intellectual groundwork was laid for the needed philosophy, the social program, and the educational theory. For most of this intellectual background we are indebted to John Dewey." 20

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20 H. Rugg, op. cit., p. 119.

Thus a new emphasis was placed upon the relation of the school to society and to the state. Education becomes the development of society as well as of the development of the individual.

Active Learning - Value of Experience

The principle of active learning, namely, that meaning arises only through response was early discerned by Charles Peirce. The idea was later adopted by William James, Wilhelm Wundt, and during the twentieth century by G. Stanley Hall, E. L. Thorndike, Charles Judd, John Dewey and others. Concrete experiences, possessing active and emotional phases were needed to give stability to purely rational concepts. This reform movement has tended to abolish bookishness and the notion that learning consists of a passive receptivity of isolated ideas.

> "The old idea of having children sit in a strained position studying lessons from books has given way to the newer idea of having them learn by doing; hence, activity has become the central thing in the learning process. Theoretically, and in many instances practically, the esteemed position held by the old classroom over which hovered the silence of indifference and listlessness has been won by the modern classroom that teems with life and resounds with the buzzing of industry. The teacher of old who stood in one spot, autocratically exercising her authority as she kept school, has been transformed into the gentle, sympathetic teacher who moves about from group to group encouraging, inspiring, guiding, and assisting as the various groups are actively engaged in drawing maps, consulting reference books, or constructing a project." 21

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21 Sister Mary Jutta, op. cit., p. 24.

The central thought of the principle of active learning is "experience" in making and doing. Psychology tells us that the experience of an individual permanently modifies his character. The particular nature of the experience, therefore, becomes of paramount importance. John Dewey has defined education as the "continuous reconstruction of experience". Thus

the emphasis tends to be shifted from teaching to learning, the teacher merely aiding the pupil in his learning, and acting as an additional incentive.

> "With regard to teaching method, the teacher will constantly bear in mind that the whole purpose of this approach is to stimulate pupils to reorganize the body of their personal experiences. This result is not achieved if we simply hand out the results or products of intelligence in finished form, or if we dictate the conclusions that are to be drawn. Genuine insight requires the assimilation of the new material to old experiences in such a way that both the old and new take on a new significance. It is the teacher's function to provide material and incentives for this process, but not to do the pupil's thinking for him." 22

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22 B. H. Bode, Conflicting Psychologies of Learning, p. 298.

One of the central ideas of the active school is that "thinking is problem-solving", which includes purposing, planning, doing, and testing the results. The pupil first makes a resolve to do something; he secondly works out ways and means of accomplishing his purpose; thirdly, he works out that which he has planned; and lastly, he evaluates the result of his work. Time and opportunity are thus afforded for expression. Encouraging the spirit and developing the technique of the creative act have been the greatest contribution of the progressive schools since 1915. Emphasis is also placed upon cooperative group activity.

> "Again the study of the child in relation to the social groups of which it is a member, and the results of practical experiments like those of Dewey and Kerschensteiner in natural communities of workers, together with the study of the spontaneous groups, the various team sports, the gang, and other spontaneous collections of children; all these have thrown great light on the essential things in group training and shown the immense value of such training of the individual in normal social groups as a

preparation for membership and civic virtue in relation to the larger social groups." 23

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23 W. H. Burnham, Great Teachers and Mental Health, p. 306.

The "direct method" is another term for the pedagogical principle above designated as "learning by doing" and the application of it is particularly noticeable in the trend toward the project method of teaching industrial and practical arts, in the direct method of teaching foreign languages, and in the laboratory method of teaching the sciences, but it is also applicable to the teaching of mathematics, history, and all other subjects.

Educational Place and Value of Symbols

Formerly, education was conceived of as knowledge gained from books, and the educational process consisted of cramming unassimilated information, which was promptly dismissed from the mind after the examination. The textbook was glorified and it dominated and determined the curriculum.

Undoubtedly, some teachers are still dependent on the textbook, but the general tendency is to assign it a supplementary place. The function and place of books is described by Frank Thomas as follows:

> "Modern educational practice is tending more and more toward the project type of work, with its incidental problems as a basis for study. Consequently somewhat less use is made of the textbook and the use made is more intelligent. This tendency promises much of value in the way of making schoolwork vital and significant to the pupils.....In regard to material for study, the effect of this is not to supersede the textbook, but to require better methods of studying and using it. Even the most thoroughgoing 'project curriculum' involves more or

less extended use of textbooks or reference books as sources of basic, supplementary, or corroborative material." 24

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24 F. W. Thomas, Training for Effective Study, p. 8.

Recently the trend has been toward a keener appreciation of the fact that symbols contained in books can be correctly interpreted into ideas only in the light of previous direct experience. The inspiration of books is coming to be used as a means of reinforcing (not preceding) direct experience.

Classroom Recitations Revolutionized

The high school recitation commonly found during the early part of the twentieth century, consisted of "hearing lessons" which were uninspired attempts on the part of the student to reproduce from memory (frequently inaccurately) certain portions of the textbook. Such inquisitions were naturally formal and uninteresting to both teacher and student.

The modern conception of the recitation is that it is an opportunity for teacher and students to discuss together in a spirit of cooperation the problems which have arisen in their minds. The capable teacher encourages the pupils to ask intelligent questions and raise worth-while issues regarding their work.

> "The teacher's function in the recitation is (1) that of a stimulator, and (2) that of an umpire. She stimulates the class to originate and plan projects, to raise and state problems, which are usually related to a project. She leads them to compare their results with their original plan, to become efficient critics of their own work, to organize their work and make new investigations, to realize their needs for skill and technic which are required in working out a project or a problem, and,

through all of their work, to realize the maximum purposeful activity of which they are capable." 25

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25 H. G. Lull and H. B. Wilson, The Redirection of High-school Instruction, pp. 99-100.

Motion Pictures and Radio as Means of Instruction

Some years ago H. G. Wells suggested that the genius of superior teachers be conserved and made available to large numbers of pupils, by means of motion-pictures. He recommended, for example, that outstanding teachers of science give demonstrations before a recording camera.

To what extent teachers have produced films is uncertain, but wide educational use has been made of motion pictures, talking pictures, and radio. The teaching of music and current events have been found to be particularly effective when taught by means of radio. During 1930, an advisory committee on education by radio was appointed by the Secretary of the Interior.

> "The use of radio as an educational means received a large amount of attention during the year. There were two national organizations for the furtherance of radio in education. One was the National Advisory Council on Radio Education organized in 1930 and supported for a period of three years by John D. Rockefeller and by the Carnegie Corporation. Dr. R. A. Millikan, California Institute of Technology, was the president of the Council.....Committees of the Council were undertaking the preparation of programmes of high quality in such subjects as agriculture, art, history, foreign languages, mathematics, philosophy, political science, and science. The second organization concerned with radio was the National Committee on Education by Radio.....This committee published a weekly bulletin of information. It was urging Congress to set aside 15 per cent of all available radio channels for education. It was also developing a programme of research in

education by radio. The work of this committee was financed for a period of five years by the Payne Fund." 26

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26 The New International Year Book 1931, p. 275.

Provision for Effective Study

During the early part of the present century, study periods were frequently ineffective, for little provision was made in training high school students how to study.

One of the most promising of recent trends in secondary education involves the reshaping of school practices toward training pupils how to secure knowledge and how to use it. Classroom instruction has been reorganized so as to combine teaching, reciting, and studying in what is commonly called "supervised study" periods. Recent consensus of opinion points to the need of training for effective study during the junior high school period, and therefore, supervised study is frequently provided during those years. Senior high school students are expected to develop self-dependence, enabling them to advance alone. Supervised study is progressively diminished in the upper grades of the high school.

In 1922 Frank W. Thomas wrote "Training for Effective Study" for which Ellwood P. Cubberley wrote the introduction, in which he points out the trends when he refers to Mr. Thomas and says:

> "He shifts the main emphasis from the recitation itself to the preparation for the recitation, from the accumulation of knowledge to learning how to find and use knowledge, from the gathering of information to learning how to use it and hence

> stand on one's own feet, from drill to appreciation and expression, from learning facts to fitting for responsibilities, and from discipline by rules to training for rational self-control. The function of the teacher then changes from that of hearing recitations to that of guiding and directing pupils, from that of teaching them the accumulated knowledge of the past to widening their horizons, and to that of training pupils, through the medium of the directed work of the school, for a life of intelligent self-direction amid the real problems of our political and industrial society." 27

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27 F. W. Thomas, op. cit., pp. viii-ix.

Increased Student Freedom

The trend has been away from a severe, austere, teacher-dominated high school to one in which emphasis is placed upon pupil initiative, freedom, and responsibility. The greater degree of liberty allowed is noticeable in classroom activities, extra-curricular activities, and in student government plans.

In the activities of the classroom the motive for the pupil's efforts comes from a realization of the worth-whileness of the work to be done, rather than from the commands of the teacher.

Liberal educators realize that great interest in school work accrues from extra-curricular activities, in which freedom is granted for carrying out significant enterprises. Thus, there is less meddling on the part of teachers, and more self-reliance developed in students.

The third manifestation of freedom is the increased student participation in school government, when, under guidance, pupils draw up regulations and formulate rules for carrying on the business of the school. Regarding student government,

Frank W. Smith says:

> "The late nineteenth century began to see some attempts to carry out the principle of self-government. The School City, the Citizen-Tribune plan, and other similar organizations came into notice and had some success. But they were top-heavy with details of organization too complicated for general adoption. Simpler schemes have prevailed. Many schools have been successfully carrying out the principle of student-cooperation in one form or another." 28

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28 F. W. Smith, The High School, p. 439.

Comparison of the Effectiveness of Instruction in Public and Private Secondary Schools

In attempting to summarize appraisals of the efficiency of these two types of secondary schools, it must be remembered that great variations exist between schools of the same classification and also within each school, so that general conclusions represent the typical rather than universal situation.

When secondary schools are judged by the attainments of their students in college, public high schools excel private schools, despite the fact that the latter have the following advantages: (1) private school pupils possess superior mental ability (See page 21), (2) student load is lighter in private secondary schools, making possible increased attention to the individual student (See pages 157 and 158). Despite these facts, public high schools develop higher intellectual qualifications in their students than do private secondary schools. This conclusion has been consistently held over a period of years. In 1912, Julius Sachs ("The American Secondary School") stated that the efficiency of public high schools was higher

than private secondary schools, and George M. Potter drew the same conclusion in an article in the "School Review" of October, 1913. Likewise, Reports of the Dean of Harvard College have consistently indicated that public school students carry off an unusually large proportion of scholastic distinctions and fewer failures in the first-year college courses. Leonard Koos has given the data thus:

> "Reports of the Dean of Harvard College have from time to time considered the relative success of entrants from public and private schools. A quotation from one of the more recent of these reports may be taken as illustrative: 'The margin of superiority of the Freshmen from the public schools over the students from the private schools remains very much the same as pointed out in previous reports. There were almost twice as many public-school Freshmen on the Dean's list (a list of students of superior scholarship) as there were men from the private schools. The proportion of unsatisfactory final records among the private-school group increased from 22.4 per cent to 27.4 per cent, while the public-school men have a gain with only 11.2 per cent unsatisfactory against 13.8 per cent in 1925-26. This makes the gap between the two groups far wider in this respect than last year.....The freshmen from many of the smaller private schools have been subject to rather careful supervision and, therefore, find it more difficult to adjust themselves to a new environment in which the student is placed largely on his own responsibility. Finally, it is a well known fact that the men from the private schools engage more extensively in outside activities than do most of those from the public schools, which is oftentimes, although not always, reflected in the grades obtained.'" 29

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29 L. V. Koos, Private and Public Secondary Education, pp. 132-3.

Public high school education has tended to be more efficient than private secondary education, if college marks are a valid test of the efficiency of secondary school instruction.

Practice Lags Behind Theory

In concluding this chapter on secondary school instruc-

tion, the writer wishes to remark that all of the tendencies herein indicated are observable in modern practice, but not universally. New ideas find their way into general practice only slowly, and the rapid trends of the last few decades have not yet been generally adopted. The incorporation of theory into classroom instruction is dependent upon the preparation of new textbooks, acquaintance of teachers and administrators with the new ideas, and in many cases the innovation must be popularized with the general public. Thus, secondary school practice lags behind modern educational theory.

Summary

Since 1900, psychologists have adopted a scientific technique, in which laboratory and statistical methods are used to objectively investigate mental processes. Some high schools have established research departments, and many teachers are using objective measurements and standard scales for judging intelligence, special abilities, and achievement. Both mental and educational tests have been critically evaluated, modified in form and use, and are becoming decidedly more numerous.

One of the great values resulting from mental testing has been a recognition of individual differences, and a realization of the value of adapting instruction to varying capacities. The trend in method toward individuality has been in spite of increased teaching load, for the average number of pupils per teacher was 18 in 1890 and 25 in 1930, with public school teachers having a decidedly heavier teaching load than private secondary school teachers. Experimental plans for in-

dividual instruction have usually been short-lived and expensive. The project method and socialized recitation, however, provide for individual differences without abandoning the class method of instruction, and without losing certain social values. Superior pupils are frequently provided with additional projects.

At present, well-defined aims of secondary school instruction are lacking, at least for public high schools. The Cardinal Principles formulated in 1918 rest upon no clearly recognized philosophy of secondary education, and much of the apparent acceptance of these principles may be merely theoretical acceptance. Recently there has been a tendency to state the aims of secondary education in terms of preparing pupils for vocational, civic, social responsibilities, and to the fullest development of personality. The center of educational gravity is being shifted from an emphasis upon knowledge to all-round development of the pupil.

The logical method, by which a subject is taught as a definitely organized field of knowledge, is being replaced by the psychological method, which considers the interests, capacities, experiences, and needs of the pupil. There is also a tendency to reorganize subject matter and method so that each unit of study will be of direct value to the pupil, thus immediate values are replacing deferred values.

A trend on the part of secondary school educators to appreciate the value of motivation is manifested in a growing desire to stimulate activity in such a way that the acquisition of knowledge will be pleasurable rather than painful.

This new conception of interest and effort requires that the pupil be provided with purposeful tasks, adjusted to his ability so that he may pursue the activity successfully.

Experiments regarding the integrative action of the human organism have disproved the older theories of formal discipline and transfer of training. Modern methods recognize that specific adjustment to each situation is required, and that generalizations do not take place without abundant assimilative material.

A modern tendency in secondary education is the functional point of view, with decreasing emphasis upon formal values. Functional procedure is evidenced in vocational courses, in the trend toward functional grammar, and in substituting applied science, applied mathematics, applied civics for abstract and theoretical values.

Formerly all subjects were taught according to a uniform methodology, whether the object of the lesson was insight, appreciation, ability, or skill, but recently there has been a recognition of various types of teaching, each of which demands a particular technique.

Under the Morrison Plan, five teaching types are recognized, and subject matter is definitely identified and organized into units. A second conception of "unit method" of instruction is the Project-Problem Plan which provides for manual and intellectual coordinations, with drill upon difficult meanings and relationships. Both teaching and learning enjoy maximum flexibility under this plan.

Educational philosophers have developed the concept of

active learning, and the secondary school frequently provides opportunity for concrete experiences possessing active and emotional phases, in order to give stability to rational concepts. There is a tendency to abolish the idea that learning consists of a passive receptivity of isolated ideas. One of the central ideas of the active school is that "thinking is problem-solving", which includes purposing, planning, doing, and testing the results. Time and opportunity are afforded creative expression, and emphasis is placed upon cooperative group activity.

Heretofore, education was conceived of as knowledge gained from books, and the educational process consisted of cramming unassimilated information which was promptly dismissed from the mind after the examination. Instead of glorifying the textbook, the tendency now is to use the inspiration of books as a means of reinforcing direct experience.

The modern conception of the recitation is that it is an opportunity for teacher and students to discuss problems in a spirit of cooperation, the teacher acting as a stimulator and umpire. Wide educational use is being made of motion pictures, talking pictures, and radio, the latter being particularly effective in the teaching of music and current events.

Provision for effective study is one of the most promising of recent trends and involves the reshaping of school practices toward training pupils how to secure knowledge and how to use it. Supervised study periods, frequently provided during the junior high school years, combine teaching, reciting, and studying. The student is expected to develop self-depend-

ence as he reaches the upper grades of the high school, with supervised study progressively diminished.

The trend has been away from a severe, austere, teacher-dominated high school to one in which emphasis is placed upon pupil initiative, freedom, and responsibility. Increased student liberty is noticeable in classroom activities, extra-curricular activities, and in pupil participation in school government.

When secondary schools are judged by the attainments of their students in college, public high schools excel private secondary schools, in spite of the fact that the latter have distinct educational advantages which might be expected to produce superior results. If college marks and scholastic distinctions are a valid test of the effectiveness of secondary school instruction, then public schools have tended to be more efficient than private schools.

Secondary school practice lags behind modern educational theory, and the rapid trends of the last few decades have not yet been universally adopted, but progress has been made.

CHAPTER VI

FINAL SUMMARY

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Schools and Enrollments

Social and economic changes such as anti-child-labor and compulsory school attendance laws have been accompanied by an extension of secondary school opportunities. Between 1890 and 1930 the quantitative development in enrollments and schools was colossal, but with great inequalities between states and localities. We also find that the secondary school population of 1930 was only about 50 per cent of the number of persons of high school age. Thus the high school has considerable potentialities for further quantitative development.

The secondary school is now far less selective than it was in 1890, having changed from a class institution with a homogeneous select population to a more democratic institution with a heterogeneous student body. The distribution of pupils in the upper four high school grades indicates an increase in the holding power of the high school, but elimination and retardation in the upper age groups is still high.

When we consider the distribution of high schools according to size, we find that consolidation of small schools and general growth in enrollment have augmented the average size of high schools, but in 1930 about half of the schools had an enrollment of not more than 100 students.

Coeducational high schools have gained over segregated high schools, but the trend has been in the direction of coeducational public schools and segregated private schools.

The dominance of the public high school has become an established fact, for, on the whole, the development of public

schools has been much more rapid than private schools. However, the per cent of increase of Catholic secondary schools compares favorably with public schools, but the other denominational and nonsectarian private high schools have declined relatively.

New types of secondary schools have resulted from demands for specialized training, so that we now have, not only general culture and cosmopolitan high schools, but also manual-training, household arts, commercial, agricultural, trade and industrial high schools, vacation, and evening schools.

The average value of grounds, buildings, and apparatus per school and per student has immensely increased for public and private schools, but the latter have the greatest advantages in this respect.

The problem of financing secondary education has become acute, for our antiquated tax methods do not always provide adequately for the mounting educational costs which are resulting from recent trends in enrollments and schools.

Teachers

The increase in enrollments was accompanied with an increase in the number of teachers in secondary schools, with the trend in the ratio between men and women instructors becoming less favorable.

The under-supply of secondary school teachers between 1920 and 1925 resulted in increased salaries, which in turn stimulated a flow of persons into the profession until the over-supply of academic teachers became serious. Since 1930, salaries have been reduced, except in large cities, and the over-supply of

teachers tends to cause a rise in training standards.

The Committee of Fifteen in 1895 and The Committee of Seventeen in 1907 influenced the training of high school teachers and stimulated improvement. Since 1910, the number of teachers possessing the bachelor's degree has increased. Since 1920 there has been a noticeable increase in graduate study and summer school attendance, indicating the trend toward improved pre-service and in-service training.

The need of professional preparation was not recognized until 1910, but now practically all of the state universities require from fifteen to thirty-six semester hours of professional work. Recently teacher training institutions have begun to set requirements in specialized preparation for each of the several high school fields. The trend is toward improved instructional organization and teaching combinations, so that teachers will have the necessary preparation for the subjects which they are teaching.

With respect to certification, all states, in 1930, imposed requirements in professional preparation. With regard to specialized preparation, the trend has been away from blanket certification, toward special certification, even for academic teachers.

Organization and Administration

The traditional four-year high school was practically universal before the World War, but now we have junior high schools, senior high schools, junior-senior high schools, and junior colleges. Public schools have been reorganized more frequently

than private secondary schools, and large high schools more commonly than small schools. The three-year units are popular in large cities, and the six-year units are more often found in small school systems. The number and percentage of reorganized schools has been steadily increasing. Since 1910, junior colleges have developed, especially in California and the Mississippi Valley. The tendency is to conclude that the first two years of the American college very properly belong to secondary education.

Since 1915 much attention has been given to homogeneous grouping, but recently doubt has been cast upon the value of the plan, and many related problems remain in an experimental stage.

Much effort has been expended in improving the articulation between elementary school, high school, and college. Since 1900 the trend has been away from viewing the high school primarily in terms of college preparation.

Programs and Curricula

The trend in curriculum is toward meeting the needs of pupils from various walks of life, rather than conforming to the demands of academic universities, for the proportion of college-bound pupils is relatively small. Differentiated courses provide for widely different interests.

The theory of formal discipline is still held by some teachers in justification of certain subjects in the curriculum, but the trend is to evaluate subjects according to their content, and to eliminate the puzzles and little-used information.

A consideration of the per cent of students enrolled in

certain subjects reveals a tendency away from academic subjects such as mathematics, and foreign languages, toward such subjects as the social studies, commercial studies, art and music, but private schools are more conservative and traditional than public high schools in this respect.

Since 1890 the secondary school offerings have been tremendously enriched by constantly adding new courses, and recently broad general courses such as General Mathematics, General History, and General Language have been added.

Educators generally are attempting to revise courses of study by means of scientific analyses of pupil interests, social needs, job and activity analyses. In recent years, the trend has been toward relating the school more closely to life.

Instruction

Many teachers are using objective measurements and standard scales for judging intelligence, special abilities, and achievement. With the increase in mental and educational tests we have come to realize the value of adapting instruction to varying capacities. The trend in method toward individuality, however, has been in spite of increased teaching load, with public school teachers having a more unfavorable teacher-pupil ratio than private secondary schools.

Well-defined aims of secondary school instruction are lacking, at present, at least for public high schools, but recently there has been a tendency to state the aims of secondary education in terms of preparing for vocational, civic, social responsibilities, and to all-round development of the pupil.

The psychological method is replacing the logical method, and immediate values are replacing deferred values. We have come to appreciate the value of motivation, and the new conception of interest and effort requires that the pupil be provided with purposeful tasks, adjusted to his ability. Thus the older theories of formal discipline and transfer of training have been modified, and functional values are replacing formal values.

Two types of "unit curricula" have been developed, each based upon somewhat dissimilar principles. Under the Morrison Plan subject matter is definitely identified and organized into units. Under the Project-Problem Plan both teaching and learning enjoy maximum flexibility.

Instead of glorifying the textbook, the principle of "active learning" has become established and the inspiration of books is used as a means of reinforcing direct experience. During the recitation both teacher and students discuss problems, the former acting as stimulator and guide. Motion pictures and radio are coming to have wide educational use. Provision is also being made for effective study involving training in securing knowledge and using it.

The teacher-dominated high school is being replaced by one in which emphasis is placed upon pupil initiative, freedom, and responsibility, in classroom and extra-curricular activities.

In comparing the effectiveness of instruction in public high schools with private secondary schools, the former are found to be more efficient than the latter, when college marks and scholastic distinctions are used as a basis of judgment.

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Bode, Boyd Henry, Conflicting Psychologies of Learning, D. C. Heath and Company, 1929, New York, pp. 302.

The author discusses various conceptions of the nature of the mind which determine the aim of the learning process, teaching method, and the whole program of education. Particularly valuable is the discussion of the nature of experience, and the value of active learning.

Briggs, Thomas H., The Inglis Lecture, 1930, "The Great investment," Harvard University Press, 1930, Cambridge, pp. 143.

This book indicates changes in secondary school clientele, the inadequacy of present methods of financing education, and the lack of any thoroughgoing philosophy of secondary education. The author advocates increasing the size of the taxing unit with federal government support, and a social philosophy or aim of secondary education.

Brown, Elmer Ellsworth, The Making of Our Middle Schools, Longmans, Green and Co., 1924, New York, pp. 547.

This is a history of public and private secondary education. The author traces the influence of the Committee of Fifteen on teacher training, and the influence of the Committee of Ten on curriculum, college entrance requirements, and accrediting systems. Special movements are traced to about 1900, and many developments of the early twentieth century are prophesied.

Brown, John Franklin, The Training of Teachers for Secondary Schools in Germany and the United States, The Macmillan Company, 1911, New York, pp. 335.

Part II is devoted to the education of American secondary school teachers, stating the situation regarding certi-

fication and teacher training institutions. A desirable standard of preparation is proposed together with a plan for providing that training.

Burnham, William H., Great Teachers and Mental Health, D. Appleton and Company, 1926, New York, pp. 351.

Here is presented the democratic trend of secondary education which bases its conception on the value of training the individual in normal social groups as the best preparation for a larger social life.

Butler, Nicholas Murray, The Meaning of Education, Charles Scribner's Sons, 1915, New York, pp. 385.

Nicholas Murray Butler presented the underlying principles of an educational philosophy, applying the principles to practical educational and social problems. His address of 1890 indicated the meager professional preparation of high school teachers at that time, and the lack of articulation between secondary schools and colleges.

Counts, George S., "Current Practices in Curriculum-Making in Public High Schools," Chapter VII of the Twenty-Sixth Yearbook of the National Society for the Study of Education, Public School Publishing Co., Bloomington, Illinois, 1926, pp. 135-162.

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Counts, George S., The Inglis Lecture, 1929, "Secondary Education and Industrialism," Harvard University Press, 1929, Cambridge, pp. 70.

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Counts, George Sylvester, The Selective Character of American Secondary Education, The University of Chicago, 1922, Chicago, Illinois, pp. 162.

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ary school population is still highly selective, and further extensions of educational opportunity are necessary.

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Cubberley, Ellwood P., Public Education in the United States, Houghton Mifflin Company, 1919, The Riverside Press, Cambridge, pp. 517.

Innovations brought about by social, political, and industrial changes are emphasized. The author indicates the effects of compulsory school-attendance legislation, changes in secondary school clientele, the establishment of new types of high schools, and trends in the reorganization movement. The volume concludes with twentieth century problems and suggestions for the future.

Davis, Calvin Olin, Junior High School Education, World Book Company, 1925, New York, pp. 451.

By means of visits to junior high schools, through a collection of printed courses of study, and by means of quotations from authorities, the author has gathered data which define the junior high school, show its historical development, and indicate trends in subject courses.

Dewey, John, The Inglis Lecture, 1931, "The Way Out of Educational Confusion," Harvard University Press, 1931, Cambridge, pp. 41.

John Dewey discusses the existing conflict in the field of education, the dissatisfaction with current conditions on the part of radicals and conservatives alike, and a possible solution of the problem. The latter is to come about through a unification of subject matter, by means of the project-problem method.

Finney, Ross L., A Sociological Philosophy of Education, The Macmillan Company, 1929, New York, pp. 563.

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drill, compulsion as a necessary addition to initiative, and a regimental type of pedagogy for the duller masses. Leadership and control are to be located in an intellectual and moral aristocracy.

Fitzpatrick, Edward A., The Scholarship of Teachers in Secondary Schools, The Sachs Prize Essay of 1926, Macmillan Co., 1927, New York, pp. 109.

The author presents the status of high school teachers' qualifications, together with trends in the improvement of the scholarship of instructors in secondary schools, and an analysis of the actual scholarship needed. The normal school and college are discussed as agencies in the improvement of pre-service and in-service training.

Flexner, Abraham, The Inglis Lecture, 1927, "Do Americans Really Value Education?" Harvard University Press, 1927, Cambridge, pp. 49.

The writer interprets the value of educational spread, or diffusion of educational opportunity which is accompanied by a neglect of scholarship and genuine intellectuality. The latter fact he ascribes to the tendency of our educational process to devitalize secondary school teachers, a condition remediable by increased teachers' salaries and recognition of the scholar as a human being.

Gates, Arthur I., Psychology for Students of Education, The Macmillan Company, 1931, New York, pp. 612.

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This is a brief summary of the procedures and agencies which have functioned in bringing opportunities for secondary education to their present development. The work of committees, boards, and associations is stressed as significant to educational progress. A plea is made for an investigation to determine the accomplishment of secondary education.

*Hill, David Spence and William Alfred Fisher, Federal Relations to Education, Report of the National Advisory Committee on Education, Washington, D. C., 1931, Part II, pp. 448.

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This is a determination of the scholarship of social science and English teachers in California and Pennsylvania. Tendencies in teacher-training policies of higher educational institutions and certificating rules are surveyed. Trends are indicated in salary schedules, differences in hiring requirements, professional and specialized preparation of teachers, and recommendations are made for the improvement of the scholarship of teachers.

Inglis, Alexander, Principles of Secondary Education, Houghton Mifflin Company, 1918, The Riverside Press, Cambridge, Massachusetts, pp. 741.

This book indicates trends in the character and classification of the secondary school population, the relation of secondary education to elementary and higher education, and the aims, functions, and organization of secondary education.

Jacobsen, Einar W., Educational Opportunities Provided for Postgraduate Students in Public High Schools, Bureau of Publications, Teachers College, Columbia University, 1932, New York City, pp. 73.

This study shows the growing demand for educational opportunity beyond the twelfth grade, the extent of the postgraduate problem in the United States, and the provisions made to meet the needs of these students. Practical suggestions for handling the situation are offered.

Judd, Charles Hubbard, The Inglis Lecture, 1928, "The Unique Character of American Secondary Education," Harvard University Press, 1928, Cambridge, pp. 63.

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*No quotations were taken from this book.

The author makes comparisons of American secondary education with that of Germany, France, and England, showing that the schools in each of these countries reflect the social and economic conditions in which they exist. Many of the features of our secondary schools, for which we are criticized, are the result of our social system, and are, therefore, unavoidable.

Kandel, I. L. (Editor), Twenty-Five Years of American Education, Essays in honor of Paul Monroe, Macmillan Co., 1929, New York, pp. 469.

Particularly valuable, in showing secondary school tendencies, are the following chapters: "University Study of Education," by I. L. Kandel; "Development of Method," by William A. Maddox; "Public School Finance," by Fletcher Harper Swift; "Secondary Education," by Alexander J. Inglis; "Vocational Education," by W. Thomas Woody; "Education of Exceptional Children," by John F. Reigart; and "The Education of Women," by Willystine Goodsell.

Koos, Leonard V., Private and Public Secondary Education; A Comparative Study, The University of Chicago Press, 1931, Chicago, Illinois, pp. 228.

This book is a comparative study of secondary education in private and public schools in the matter of the achievement of pupils, success in the university, curriculum, and teaching staff. The data of private schools were collected by the author as inspector of the private secondary schools in Minnesota.

*Learned, William Setchel, The Inglis Lecture, 1932, "Realism in American Education," Harvard University Press, 1932, Cambridge, pp. 70.

The author interprets certain aspects of educational reconstruction which are resulting from forces pressing upon us. He discerns the principles and directions that promise most useful change and indicates the modifications that seem most likely to prevail. His realistic philosophy is similar to the ideas of the Morrison Plan.

Lull, Herbert G., and H. B. Wilson, The Redirection of High-School Instruction, School Project Series, Edited by William F. Russell, J. B. Lippincott Company, 1921, Philadelphia, pp. 286.

Trends in the discovery and organization of the functional elements of high school instruction is the central theme of this book. The view that the school is an instrument of social interpretation, social adjustment,

and social control is maintained throughout. The authors have stated the problems of junior and senior high school instruction and suggested solutions for them by means of the project-problem method.

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This is an historical and critical survey of education. Part III indicates trends in the development of secondary education from colonial times to the present. The last chapters are devoted to the scientific study of education, trends in vocational education, school organization, and the profession of teaching.

Morrison, Henry C., The Inglis Lecture, 1933, "The Evolving Common School," Harvard University Press, 1933, Cambridge, pp.62.

Professor Morrison describes social changes which have brought about changes in educational organization. The establishment of the junior high school and junior college, have been outgrowths of the rapid increase in secondary school attendance and changes in clientele. A critical evaluation is presented of high school methods, organization, curriculum, and financial expenditures.

Morrison, Henry C., The Practice of Teaching in the Secondary School, The University of Chicago Press, 1931, (Revised Edition) Chicago, Illinois, pp. 680.

The unit curriculum is presented, which aims to improve instruction through the idea of mastery and the development of teaching techniques applicable to particular subjects in the curriculum. Under this system the tendencies are for pupils to cover less and learn more, interest tends to be greater, the advantages of group recitations are retained, failures are fewer, and provision is made for the scientific treatment of problem cases.

Odell, C. W., Traditional Examinations and New-Type Tests, The Century Co., 1928, New York, pp. 469.

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This book contains an analysis of the characteristic concepts of American life, presenting them in a tentative theory of living and a program of educational reconstruction. Rugg says life is more than problem solving--there is also feeling import. Particularly significant is his discussion of relating the high school curriculum to life.

Sachs, Julius, The American Secondary School and Some of its Problems, The Macmillan Co., 1912, New York, pp. 295.

The author is critical of current educational policies, and postulates an idealism with regard to schools, teachers, organization, curricula, and methods. Valuable views are presented regarding coeducation, the distribution of men and women teachers, the lack of specialized preparation of teachers, and the trend away from considering the secondary school merely as college preparatory.

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An analysis is made of the means which teachers employ for guiding and correcting students, with the aim of building up moral ideals and habits. Changing conceptions are presented with a discussion of the nature, aims, and essentials of good discipline, school routine, incentives, and the value of active learning, together with a discussion of cases.

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The development of the twentieth century American high school is discussed with regard to equipment, organization and administration, programs of studies and curricula, principles and methods. The development of special types of high schools is discussed, as is also the tendency toward increased student freedom.

The Development of the High-School Curriculum, Department of Superintendence of the National Education Association, Sixth Yearbook, 1928, Washington, D. C., pp. 584.

This yearbook contains discussions as follows: fundamental issues in secondary school curriculum building, research in secondary school subjects, health and physical education in junior and senior high schools. Review is made of the most pertinent research studies which contribute to the solution of problems in the field of secondary school curricula.

Thomas, Frank W., Training for Effective Study, Houghton Mifflin Company, 1922, The Riverside Press, Cambridge, Mass., pp. 251.

Here are enumerated the factors that influence study, with discussion of the conditions that bear on its improvement. Emphasis is placed on the essentials to good study for which the recitation period is primarily responsible, and on special phases belonging to the study period itself. This book shows trends in the modification of classroom procedure.

Vizetelly, Frank H., (Editor), The New International Year Book, 1932, Funk and Wagnalls Company, 1933, New York, pp. 856.

Under "Education in the United States," on pages 248-251 is indicated changes in secondary school clientele, and trends in the curriculum away from college preparatory

subjects toward social sciences and non-academic courses. Trends in character education are also described.

Wade, Herbert Treadwell, (Editor), The New International Year Book 1928, Dodd, Mead and Company, 1929, New York, pp. 835.

On pages 226-228, under the caption "Education in the United States," the following topics pertaining to this thesis are discussed, namely: secondary school enrollment, the increasing cost of high school education, growth in the movement of intelligence testing, theories of intelligence, and three viewpoints concerning the validity of mental test results.

Wade, Herbert Treadwell, (Editor), The New International Year Book 1930, Dodd, Mead and Company, 1931, New York, pp. 824.

The subdivision called "Education in the United States," on pages 235-238 presents public and private high school statistics regarding enrollments and teachers, changes in organization resulting in the junior high school and junior college, trends in homogeneous grouping, changes in the number of students pursuing certain courses, and the tendency to organize subject matter about activities or units.

Wade, Herbert Treadwell, (Editor), The New International Year Book 1931, Funk and Wagnalls Company, 1932, New York, pp. 856.

The section entitled "Education in the United States," pages 273-277 gives a comparison of actual secondary school enrollment with potential enrollment, cost of high school education, improvements in teacher training, and the value of the educational use of motion pictures and radio.

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A brief historical account is given of the development of the junior college, showing the variety of ideals and practices in the different parts of the country. Adequate financial support and competent faculties are needed. Difficulties are apt to arise from a conflict of interests between colleges and universities, the high schools, and the general public.

Brammell, P. Roy, "Articulation of High School and College," U.S.

Office of Education, Bulletin, 1932, No. 17, National Survey of Secondary Education Monograph No. 10, pp. 96.

This monograph contains the results of research regarding phases of college admission, subjects accepted for admission, means of adaptation subsequent to admission, and plans for the improvement of articulation.

Brownell, William Arthur, "State Requirements for High-School Teachers," School Review, Vol. 34, (April, 1926), pp. 295-299.

The information of this article is based on a March, 1925 survey sent to all state superintendents of public instruction. Tables show the number of hours of education which are required by the forty-eight States, and the date of the legislation fixing the requirements. Tabular data per state are given on the number of hours required in Psychology, History of Education, Principles of Education, Introduction to Education, General Methods, Special Methods, Observation and Practice.

Crowley, Francis M., "Rapid Development of Catholic High Schools in Past Decade," School Life, Vol. 14, (February, 1929), pp. 112-114.

The rapid expansion in recent years of Catholic secondary education is shown by the increase in schools, enrollments, and teachers, many of the latter being laymen. Thus the gulf has been bridged between the Catholic elementary school and Catholic college. In large cities, the tendency is toward central high schools.

Foster, Emery M., "Statistical Summary of Education, 1929-30," U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 1-12.

This article presents the following: the number of schools of various types in 1929-30, enrollment figures in the ninth, tenth, eleventh, and twelfth grades, the number of students taking some form of college preparatory work, statistics of the distribution of teachers, figures showing expenditures, and the value of public and private secondary school property.

Foster, Emery M., Russell M. Kelley, and Carl A. Jessen, "Statistics of Public High Schools, 1929-30," Biennial Survey of Education, 1928-1930, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 685-779.

The number, size, and enrollment of public high

schools in 1930 are presented, with review summaries from 1890. The article emphasizes the extent and nature of reorganization, and presents statistics regarding various types of high schools.

Foster, Frank K., "Trends in Summer Sessions for Teachers," School Life, Vol. 17, No. 8, (April, 1932), pp. 153-5.

This article indicates the influences at work causing increased interest in summer sessions for in-service teachers, and what courses instructors want at summer school.

Frazier, Benjamin W., "Professional Education of Teachers," Biennial Survey of Education, 1928-30, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 1, pp. 501-540.

The contents of this article includes the following: supply and demand of secondary school teachers, tendency to abolish blanket certification, courses of training being lengthened, and improvement of in-service teacher training.

"Growth of Summer School Attendance," Journal of the National Education Association, Vol. 20, No. 8, (November, 1931), p. 298.

Here is indicated the growth in summer school attendance by comparing data for 1929, 1930, and 1931, regarding the number enrolled in all courses, and the number enrolled in courses in education. Data are presented for each state.

Halleck, Reuben Post, "Report of the Committee of Seventeen on the Professional Preparation of High-School Teachers," Proceedings of the National Education Association, 1907, pp. 523-538.

The committee recommended improvements in the professional preparation of high school teachers in the following phases: academic, specialized, and professional training. It recommended a post-graduate year in professional preparation.

*Inglis, Alexander, "A Fundamental Problem in the Reorganization of the High School," School Review, Vol. 23, (May, 1915), pp. 307-18.

This is a discussion of the reorganization of the school system as affected by the nature of the development of boys and girls between the ages of twelve and eighteen years. The author explains the difficulty of organizing our schools on the basis of the phenomena of

adolescence, because of the uncertainty with regard to the abrupt or gradual development of adolescence, and of the variability found in the age distribution of pupils.

Jessen, Carl A., "Secondary Education," Biennial Survey of Education, 1926-1928, U. S. Office of Education, Bulletin, 1930, No. 16, pp. 147-165.

The contents of this article includes growth in public high schools, the reorganization movement, the junior college, the trends in curriculum, articulation between educational units, and research in secondary education.

Jessen, Carl A., "Secondary Education," Biennial Survey of Education, 1928-30, Vol. 1, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 1, pp. 121-143.

The contents of the article includes the number of schools and pupils, reorganization, the growth of the junior college, the importance of private secondary education, articulation, and the cooperative attack on the problems of secondary education through an extensive, national survey.

*Kefauver, Grayson, Victor H. Noll, C. Elwood Drake, "The Secondary-School Population," U. S. Office of Education Bulletin, 1932, No. 17, National Survey of Secondary Education Monograph No. 4, pp. 1-58.

This monograph indicates trends in the popularization of secondary education, the socio-economic and intellectual democratization of secondary education, and an analysis of the characteristics of secondary school pupils.

Kingsley, Clarence D., "Report of the Committee of Nine on the Articulation of High School and College," Proceedings of the National Education Association, 1911, pp. 559-567.

In this report, the quantitative requirements of a well-planned high-school course were set at fifteen units, with a recommendation for the proper number of units in English, social science, natural science, physical training, mathematics, and foreign languages.

Peik, W. E., "Courses for High-School Teachers," School Life, Vol. 18, No. 4, (December, 1932), pp. 71-2 and 74.

This article presents a discussion of the courses for

high school teachers that universities and colleges require, and the problems thereof, based upon practices found in fifty-seven higher educational institutions.

Phillips, Frank M., "Statistical Summary of Education," Biennial Survey of Education, 1926-1928, U. S. Office of Education, Bulletin, 1930, No. 16, pp. 423-438.

A summary is here made of data for the school year 1927-28 regarding expenditures, distribution of teachers, enrollments in certain types of schools, per cent of high school graduates continuing in higher schools, and survival rates in public high schools.

*Potter, George M., "Relative Efficiency of Public and Private Secondary Institutions," School Review, Vol. 21, (October, 1913), pp. 523-537.

The aim of this study was to determine the relative efficiency of public and private secondary institutions. The conclusion is drawn after an examination of marks of students in the University of Chicago. The public school is deemed more efficient than the private school as a college preparatory institution.

"Private High Schools and Academies, 1919-20," Biennial Survey of Education, 1918-1920, U. S. Bureau of Education, Bulletin, 1923, No. 29, Vol. 2, pp. 537-552.

Tables are presented which contain comparative data for five-year periods from 1890 to 1920 regarding the number of schools, instructors, students, graduates, segregated and coeducational schools, teaching load, the ratio of students to a school, ratio of students per teacher, denominational and non-sectarian schools and enrollments, and the value of private secondary school property.

*Sachs, Julius, "Co-education in the United States," Educational Review, Vol. 33, (March, 1907), pp. 298-305.

The author concludes that the increasing trend toward coeducational high schools is not best for the welfare of boys or girls. The intellectual reactions of coeducation are distraction and uncertainty in classroom management. Both sexes need separate curricula, and parallel courses should be provided.

"Salaries in City School Systems 1930-31," Research Bulletin of the National Education Association, Vol. 9, No. 3, (May, 1931), pp. 163-227.

Information is given regarding salaries paid teachers, principals, and other school employees in 1930-31. Data for individual cities are presented as well as median salary paid in cities over 100,000 population; in cities 30,000 to 100,000; 10,000 to 30,000; 5,000 to 10,000; and 2,500 to 5,000 in population.

"Salary Scales in City School Systems 1928-29," Research Bulletin of the National Education Association, Vol. 7, No. 3, (May, 1929), pp. 106-171.

This bulletin presents data on salaries paid teachers, principals, and certain other school employees in 1928-29 as well as salaries paid school administrative and supervisory officers. Data are distributed according to size of cities.

"Secondary Schools," Report of the Commissioner of Education for the Year Ended June 30, 1910, Vol. 2, pp. 1127-1204.

This is a statistical report of public and private secondary schools with regard to enrollments, schools, graduates, courses pursued, teachers, value of grounds, buildings, and apparatus.

Sister Josefita Maria, "Shall We Have a Junior High School?" The Catholic School Journal, (August, 1933), pp. 184-5.

The author considers the reaction of the Catholic school authorities to the junior-high-school movement, and puts the acceptance of the junior high school idea up to the diocesan authorities. She states some of the difficulties presented by the general acceptance of the junior high school in certain communities.

"Statistics of Private High Schools and Academies, 1927-28," Biennial Survey of Education, 1926-1928, U. S. Office of Education, Bulletin, 1930, No. 16, pp. 1093-1153.

Statistics of 2,448 private high schools and academies for the school year 1927-28 are contained in this report. The principal items tabulated are: instructors, pupils, graduates, value of grounds, buildings, and apparatus, student enrollments by subject, and data in detail for each school having 100 or more secondary pupils.

"Statistics of Private High Schools and Academies, 1929-30," Biennial Survey of Education, 1928-1930, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 781-829.

This article gives the number of instructors, gradu-

ates, and enrollment of private secondary schools in 1929, indicates the denominations controlling the sectarian schools, and evaluates buildings, grounds, scientific apparatus, and furniture.

"Statistics of Private Secondary Schools," Report of the Commissioner of Education for the Year 1889-90, Vol. 2, pp. 1486-1571.

A summary of statistics of endowed academies, seminaries, and other private secondary schools for 1889-90 is presented. Tabular data for each State indicate the number of schools, enrollments, teachers, value of grounds, buildings, and apparatus, etc.

"Statistics of Private Secondary Schools," Report of the Commissioner of Education, 1899-1900, Vol. 2, pp. 2352-2436.

Here is given the name and location of all private high schools, endowed academies, and seminaries, in the United States, arranged according to States. Of each school the following information is given: religious denomination, number of instructors, number of students, number preparing for college, graduates in 1900, etc.

"Statistics of Public High Schools," Report of the Commissioner of Education for the Year 1889-90, Vol. 2, pp. 1388-1485.

Topics in this report relate to the number of students pursuing certain studies in public high schools, number of schools, students, teachers, graduates, etc.

"Statistics of Public High Schools, 1917-18," Biennial Survey of Education, 1916-1918, U. S. Bureau of Education, Bulletin, 1920, No. 19, pp. 7-192.

The contents of this chapter includes a classification of high schools, amount of schooling afforded by the schools, number of instructors, teaching load, number of students and grade distribution, rate of increase in enrollment, per cent of population in high schools, graduates going to college, value of property, and cost of education.

"Statistics of Public High Schools, 1919-20," Biennial Survey of Education, 1918-20, U. S. Bureau of Education, Bulletin, 1923, No. 29, Vol. 2, pp. 495-535.

This chapter contains a summary of statistics of public schools from 1890 to 1920, tabular data regarding

teachers in public high schools, the number of pupils enrolled, the number of students in reorganized and regular public high schools, and the number of graduates.

"Statistics of Public High Schools, 1927-1928," U. S. Office of Education, Bulletin, 1929, No. 35, pp. 1-136.

Here is presented a summary of subject enrollments, statistics regarding teacher training, size of high schools, survival data, graduates, and the value of public high school property.

"Statistics of Public High Schools, 1927-28," Biennial Survey of Education, 1926-1928, U. S. Office of Education, Bulletin, 1930, No. 16, pp. 957-1092.

Significant data are given regarding the number and percentages of public high school students enrolled in various studies. The increase in the number of courses offered is indicated, together with a long list of miscellaneous subjects pursued by public secondary school students.

"Statistics of Secondary Schools," Report of the Commissioner of Education, 1899-1900, Vol. 2, pp. 2119-2173.

This chapter contains the number of secondary schools, students, per cent of population in high school, distribution between public and private schools, teachers, students in certain courses, number preparing for college, religious denomination and nonsectarian distribution of private schools, division of schools according to size of cities, value of equipment, and the 1899-1900 income.

"Statistics of State School Systems, 1929-30," Biennial Survey of Education, 1928-1930, U. S. Office of Education, Bulletin, 1931, No. 20, Vol. 2, pp. 13-87.

Data are presented relating to public secondary schools, according to States, enrollment and attendance, teachers, pupil-teacher ratio, financial support and expenditures, cost per pupil, value of school property, and other statistical summaries.

Tarbell, H. S. (Report of the Committee of Fifteen) "Report of the Sub-Committee on the Training of Teachers," Proceedings of the National Education Association, 1895, pp. 238-253.

This report treats of the training of secondary school teachers, recommends improvements in the science and art of teaching, and suggests a post-graduate year.

"The Retention, Promotion, and Improvement of Teachers," Research Bulletin of the National Education Association, Vol. 10, No. 2, (March, 1932), pp. 33-75.

This bulletin contains data on teachers' salaries and salary scheduling, particularly in relation to factors determining the teacher's place on the regular salary schedule, supermaximum salaries, and direct financial rewards for additional training or travel.

"The Selection and Appointment of Teachers," Research Bulletin of the National Education Association, Vol. 10, No. 1, (January, 1932), pp. 1-32.

This bulletin contains recent information regarding training requirements for newly appointed teachers; namely, increases in statutory requirements, present practice in city school systems, trend of training requirements in city systems, and the effect of supply and demand upon training standards.

*Thorndike, E. L., "A Neglected Aspect of the American High School," Educational Review, (March, 1907), pp. 245-255.

The author says that the typical high school is one having only one, two, or three teachers. These schools enroll a very large percentage of the high school students. The ordinary discussion of secondary school problems has been written with the idea that the typical high school is one having from six to twelve teachers and several hundred pupils. This is a fallacy, and what is best for the large high school often is not the best for the small high school.

(Miscellaneous)

Abstract of the Fifteenth Census of the United States 1930.

Compendium of the Eleventh Census: 1890, Part III.