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BIENNIAL SURVEY OF EDUCATION IN THE UNITED STATES 1928–1930

CHAPTER XIII
COLLEGE AND UNIVERSITY EDUCATION

BY
WALTON C. JOHN
ASSOCIATE SPECIALIST, GRADUATE AND PROFESSIONAL EDUCATION
OFFICE OF EDUCATION

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CHAPTER XIII

COLLEGE AND UNIVERSITY EDUCATION

By WALTON C. JOHN

Associate Specialist in Graduate and Professional Education, Division of Colleges and Professional Schools, Office of Education

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Contents: Part I, *Growth and coordination of higher educational institutions*—Aspects of growth—Problems resulting from expansion—Higher educational associations—Coordinating agencies for research—Surveys. Part II, *Emerging types of colleges and universities*—Recent decisions—Present trends in higher education.

PART I. GROWTH AND COORDINATION OF HIGHER EDUCATIONAL INSTITUTIONS

The preparation of young men and women in our universities and colleges for the numerous activities and responsibilities that engross the lives of the American people has become one of the major enterprises of the country. This is evidenced not only by the remarkable growth in the number and size of higher educational institutions but also by the increasing seriousness of effort that is being put forth by these institutions to improve the quality of their product.

Perhaps the outstanding feature of college and university education for the biennium 1928–1930 has been the many scientific studies and surveys made covering nearly all aspects of college and university achievement on a scale hitherto unknown in the history of modern education. Although the majority of higher educational institutions have not been entirely devoid of critical self-analysis in the past, it has only been within recent years that conditions have compelled the colleges to study in a more definite manner the ways and means for educational readjustment and to lay firmer foundations for the revaluation of educational aims and procedures.

This unprecedented activity in higher educational life can only satisfactorily be understood if we consider the entrance of new and important factors of growth, development, and control that have become more fully crystallized and more effective within the past decade or during the period since the World War. At that time it was stated that the year 1916–17 marked the close of an important

epoch in the history of higher education in the United States, but it was doubtless equally true that a new period of higher education was being ushered in; a period which will be one of great significance in our educational history and one that will tax for many years the best efforts of the leaders of our universities and colleges to meet the issues and solve the problems that are developing.

ASPECTS OF GROWTH

For the 25 years preceding the World War the number of colleges and universities remained practically constant. In 1916–17 the number reporting was 662, including 82 junior colleges. In fact, during the 25-year period mentioned there had been a slight decline in the number of universities and colleges, and even by 1920 the total number had reached only 670. However, in 1926 the number had increased to 975, and in 1928 to 1,076, an increase of 107 institutions reporting for the biennium and 412 for the 9-year period.[1]

An analysis of the several aspects of growth of colleges and universities is given in the following table:

TABLE 1.—*Growth in number of colleges and universities based on the official reports to the Office of Education*[1]

Types of institutions	Number of institutions								
	1928			1926			1920		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
1	2	3	4	5	6	7	8	9	10
Colleges and universities, including junior colleges	1,076	226	850	975	154	821	670	109	561
	100%	21%	79%	100%	15.8%	84.2%	100%	16%	84%
Colleges and universities, excluding junior colleges	828	112	716	822	107	715	618	99	519
	100%	13.5%	86.5%	100%	13%	87%	100%	16%	84%
Junior colleges	248	114	134	153	47	106	52	10	42
	100%	46%	54%	100%	30.7%	69.3%	100%	19%	81%

[1] Does not include institutions in Alaska, Hawaii, and Porto Rico, nor does it include institutions offering one year of junior college work.

According to Table 1, in 1920 the publically controlled institutions constituted 16 per cent of the total number; in 1928 they constituted 21 per cent. In 1920 the privately controlled institutions constituted 84 per cent of the total number; in 1928 they constituted 79 per cent. If the junior colleges are excluded, for 1920 the public institutions constituted 16 per cent of the total number; in 1928 they constituted 13.4 per cent. During the same time the percentage of private insti-

[1] Educational statistics for the year ending June, 1930, were not fully assembled, consequently the figures for the full decade can not be presented in this report. The figures compare 1919–20, 1925–26, and 1927–28, covering nine years.

tutions increased from 84 per cent to 86.5 per cent of the total. Likewise the public junior colleges reporting increased from 19 per cent to 46 per cent of the total, while the private junior colleges decreased from 81 per cent to 54 per cent. It is evident from the figures given that the increase in the number of colleges during the biennium largely has been caused by the multiplication of junior colleges, principally those publicly controlled.

During the biennium 1926–1928 the number of professional schools, with the exception of those of law, has somewhat decreased, as shown in the following table:

TABLE 2.—*Comparison in number of professional schools*

Type of school	1928	1926	Type of school	1928	1926
Theology	176	180	Pharmacy	66	67
Law	136	136	Dentistry	41	44
Medicine	73	77	Veterinary medicine	11	12

These data, in addition to other indications, appear to show that for the present there is no need for an increase in the number of professional schools of the country. And if the junior colleges are excluded, it would appear that there will be little increase in the number of 4-year colleges and universities in the future. However, the junior colleges doubtless are destined to increase in proportion to the growth of the secondary schools.

The number of engineering schools, as well as the number in agriculture, has remained stationary during the biennium; however, there has been a large increase in the number of teacher-training institutions.

TABLE 3.—*Growth of instructional staff*

Year	Total number of teachers				Number of teachers in public institutions				Number of teachers in private institutions			
	Number of institutions	Total 100 per cent	Men	Women	Number of institutions	Total 35.2 per cent	Men	Women	Number of institutions	Total 64.8 per cent	Men	Women
1928	1,076	67,209 100%	53,263 77.7%	14,946 22.3%	226	23,667 100%	18,604 79%	5,063 21%	850	43,542 100%	33,659 77.3%	9,883 22.7%
1926	975	63,234 (100%)	48,646	13,578	154	20,850 (32.9%)	16,818	4,032	821	41,234 (65.2%)	31,834	9,500
1920	670	46,343 100%	36,111 78.9%	9,772 21.3%	109	100%	80%	20%	561	100%	77.3%	22.7%
		43,883 100%	34,111 79.5%	9,772 20.5%								

In 1928 the total number of teachers in 1,076 colleges and universities reporting was 67,209, an increase of 8 per cent over the figure for 1926, and of 45 per cent over the figure for 1920. Of those teach-

ing in 1928, 35.2 per cent were teaching in publicly controlled institutions and 64.8 per cent in those privately controlled. In 1926 the corresponding percentages were 33.5 per cent for public and 66.5 for private institutions. Of the 67,209 teachers listed in 1928, 77.7 per cent were men and 23.3 per cent were women. The figures for 1920 and 1926 show very slight differences from these proportions. On the whole, since 1920 there has been a slight increase in the proportion of women teachers in colleges compared with the number of men teachers.

THE STUDENT BODY

The growth of the student body in the colleges and universities has been very great. As shown in Table 4, in 1920, the enrollments, excluding preparatory students, reached a total of 462,445; in 1926 they reached 767,163; and in 1928 they were 868,793, an increase, respectively, of 65.9 per cent and 88 per cent over the enrollments for 1920. The enrollments in 1928 were 8.8 per cent greater than those for 1926.

TABLE 4.—*Student enrollments*

Year	Total enrollments				Enrollments in public institutions				Enrollments in private institutions			
	Number of institutions	Total	Men	Women	Number of institutions	Total	Men	Women	Number of institutions	Total	Men	Women
1928	1,076	100% 868,793 [2](919,381)	61.35% 533,038 [1] (30,206) (563,244)	38.65% 335,755 [1] (20,382) [2](356,137)	226	38.56% 335,006	211,877	123,132	850	61.44% 533,794	321,161	212,633
1926	975	100% 767,263 [2](822,896)	62% 476,547 [1] (33,185) [2](509,732)	38% 290,716 [1] (22,447) [2] (313,163)	154	36.55% 280,437	180,056	100,381	821	63.45% 486,826	296,491	190,335
1920	670	100% 462,445 [2](521,754)	64% 295,828 [1](38,398) [2](334,226)	36% 166,617 [1] (20,911) [2](187,528)	109	39.24% 181,460	123,752	57,708	561	60.76% 280,985	172,076	108,909

[1] Preparatory students. [2] Includes preparatory students.

Attention is called to the fact that nearly two-thirds, 61.44 per cent, of the collegiate student body in this country for 1928 was enrolled in privately controlled institutions, and over one-third, 38.56 per cent, was enrolled in the publicly controlled institutions. It will also be observed that 61.35 per cent represents the total enrollment of men in 1,076 institutions and 38.65 per cent represents the total enrollment of women for 1928. The figures show that there has been a slight decline in the percentage of men enrolled, compared with the women, since 1920. The number of preparatory students in universities and colleges also has declined to a considerable extent.

The following data show the approximate relative strength of the undergraduate enrollments in the following fields or curricula:

Arts and science and general	353,904
Teacher-training courses	[1] 191,378
Engineering	66,637
Commerce and business administration	[2] 62,000
Law	42,694
Medicine	21,427
Theology	13,642
Agriculture	13,149
Pharmacy	11,125
Dentistry	9,282
Architecture	4,659

Within the colleges the number enrolled in arts and sciences and other general courses is nearly double that in any other curriculum or field. Teacher training is second; however, the total number enrolled in these courses in all types of schools, excluding high schools, reaches 454,138. The third in strength is engineering, which is closely followed by commerce and business administration; the enrollment in these two fields is a little more than a third of the enrollment in arts and sciences.

ENROLLMENTS IN PROFESSIONAL SCHOOLS

The enrollments in the several types of professional schools are compared for the years 1928, 1926, and 1920. In all cases, with the exception of dentistry and veterinary medicine, there have been continuous increases since 1920.

TABLE 5.—*Professional enrollments*

Type of school	Year			Type of school	Year		
	1928	1926	1920		1928	1926	1920
Law	42,694	40,189	20,992	Dentistry	9,282	11,777	8,809
Medicine	21,427	19,922	13,242	Osteopathy	1,955	1,589	.....
Theology	13,642	13,055	7,216	Veterinary medicine	612	537	908
Pharmacy	11,125	10,615	5,026				

The enrollments in engineering colleges approached a peak when, in 1920, approximately 52,000 were enrolled, the number reaching 56,766 for 121 schools of engineering in 1921–22. There was a drop in the following year to 52,288, but since that time enrollments in engineering have gained steadily on the whole, and in 1928 in 148

[1] This figure does not include the 202,760 students enrolled in teachers' colleges and other professional teacher-training institutions, excluding high schools.
[2] Estimated.

institutions there were enrolled 65,520; on December 31, 1929, in 119 institutions there were 58,853, with 70,000 students estimated for 145 schools.

DEGREES GRANTED

The colleges and universities in the United States in 1928 granted 83,065 baccalaureate degrees. In 1926 the figure was 71,529, and in 1920 it was 38,552. This represents an increase over the 1920 figure of 85 per cent for 1926 and 115 per cent for 1928.

The number of graduate degrees granted in 1928 was 13,834, of which 1,447 were the Ph. D. degree. In 1926, 11,451 graduate degrees were granted which included 1,302 Ph. D. degrees. In 1920, 4,853 graduate degrees were granted, including 532 Ph. D. degrees.

INCOME

The total income for the 1,076 institutions reporting in 1928 was $546,674,266. Excluding additions to endowment, the income was $496,529,309. The total income for 975 institutions in 1926 was $479,774,664, and excluding additions to endowment it was $407,400,056. In 1920 the total income for the 670 institutions was $240,141,994, and excluding additions to endowment it was $189,235,242.

TABLE 6.—*Total income excluding additions to endowment*

Year	Total	Public	Private
1928	100% $496,529,309	41.1% $205,753,979	58.6% $290,775,330
1926	100% $407,400,056	43% $174,480,662	57% $232,919,394
Increase	$89,129,253	$31,273,317	$57,855,936
Per cent increase	21.9	17.9	24.8
1920	$189,235,242		
Increase by 1928	$307,294,067		
Per cent increase by 1928	162		

In 1928 the publicly supported institutions received 41.1 per cent of all higher educational income and the private institutions received 58.6 per cent. The increase in income is shown also. In 1928 the total income of all colleges and universities was 21.9 per cent higher than that of 1926 and 162 per cent higher than that of 1920. In 1928 the public institutions received an income 17.9 per cent greater than that of 1926, and the 1928 income of private institutions was 24.8 per cent greater than that of 1926.

PROPERTY

The total value of property for the 1,076 institutions in 1928 was estimated at $2,413,748,981; in 1926 it was $2,334,307,421; and in 1920 it was $1,257,614,739.

A comparison between the amounts and proportions of the value of property of publicly and privately controlled institutions is given. As the figures for 1919–20 can not be segregated, it is necessary to compare the figures of 1921–22 with those of 1927–28.

The value of all property, including productive endowment funds, in publicly controlled colleges and universities in 1921–22 was $360,184,477; in 1927–28 it was $664,290,782. This indicates an increase in six years of 84 per cent.

The value of all property, including productive endowment funds, in privately controlled colleges and universities in 1921–22 was $1,149,007,569; in 1927–28 it was $2,150,782,193, or an increase of 87 per cent.

The value of productive endowment funds of publicly controlled colleges and universities for 1921–22 was $75,949,422; in 1927–28 it was $110,505,241, or an increase of 47 per cent.

The value of productive endowment funds of privately controlled colleges and universities for 1921–22 was $623,864,030; in 1927–28 it was $1,039,607,010, or an increase of 67 per cent.

The value of all property, excluding productive endowment funds, of publicly controlled universities and colleges in 1921–22 was $284,835,055; in 1927–28 it reached the sum of $553,785,541, or an increase of 94 per cent.

The value of all property excluding productive endowment funds in privately controlled universities and colleges, in 1921–22 was $525,143,909; in 1927–28 this increased to $1,111,175,185, or an increase of 112 per cent.

A comparison of the proportion of property of all kinds between publicly and privately controlled institutions for 1921–22 shows that of the total property value of all schools, the public institutions owned 24 per cent and the private 76 per cent. Of the total value of productive endowment, the public institutions owned 11 per cent and the private 89 per cent. Of the total value of property, excluding productive endowment, the publicly controlled institutions possessed 35 per cent and those privately controlled 65 per cent.

In 1927–28 the percentages were as follows: Of the total property value, public institutions owned 24 per cent, the private 76 per cent; of total value of productive endowments, the public institutions owned 10 per cent and the private 90 per cent; of the total property value, excluding productive endowments, the public institutions possessed 33 per cent and the private 67 per cent.

It will be observed that there has been no change in the proportions of the value of property owned by public and private institutions for the year 1921–22 and 1927–28, the percentages being 24 and 76, respectively. There has been little change in the proportion of the

value of endowment received by public and private institutions for the same years, the percentages respectively being 11 and 89 in 1921–22 and 10 and 90 in 1927–28. With respect to the total value of property, excluding productive endowment, the proportions for public and private institutions show a little change in favor of the private institutions. In 1921–22 the percentages were 35 and 65, respectively, and in 1927–28 they were 33 and 67, respectively.

ENDOWMENTS OF $1,000,000 OR MORE

In 1928 there were 22 publicly controlled universities and colleges and 162 privately controlled institutions reporting endowments or productive funds valued at $1,000,000 or more in each case. In 1920 only 9 publicly controlled institutions and 82 privately controlled institutions reported individual endowments of $1,000,000 or over.

LIBRARIES

The total number of volumes in the libraries of the 1,076 institutions in 1928 was 40,498,291, in 1926 it was 37,549,468, and in 1920 it was 24,191,204.

PROBLEMS RESULTING FROM HIGHER EDUCATIONAL EXPANSION

This extraordinary expansion of higher educational activity during the past decade has been responsible for the multiplication of problems which confront the institutions. The solutions of these problems will doubtless have an important bearing on the future development of higher education. Prior to the World War higher educational institutions were adding schools and curricula to meet the demands for improved preprofessional and professional training, and many schools had qualified according to the standards set up by the several accrediting associations. These standards, largely quantitative in character, related principally to entrance requirements, graduation requirements, number and nature of degrees, size of faculty, scope of instruction, size of institution, training of the faculty, teaching load, size of classes, financial support, salaries, libraries and laboratories, separation of college and secondary classes, and other matters. This work of standardization had proceeded steadily, but was largely limited to the colleges of arts and science and the medical schools.

Although there were some differences between the standards set up by the several accrediting bodies, the differences were not sufficient to retard the closer coordination between all institutions that were accredited, nor to lessen the efforts of the majority of nonaccredited colleges to work toward the ultimate and full realization of recog-

nized standards. Graduates from the prevailing 4-year high schools also came under the stimuli of the accrediting organizations; consequently students entered college with fewer divergencies in the amount and quality of their preparation. Without doubt before 1918 the major accrediting associations were largely responsible for gradually bringing about what constitutes a nation-wide articulation of colleges and universities through the process of setting up and enforcing standards of entrance requirements and academic and financial standards of colleges.

However, during the war and the years immediately following, attention began to be focused sharply on the colleges and universities of the country not merely as instruments of liberal culture and professional training but to an increasing extent as instruments of national service. The entrance of the United States into its postwar industrial and commercial activity throughout the world called immediately for larger numbers of well-educated men and women to take advantage of the great economic opportunities which were rapidly opening up to this country; thus the great industries and all forms of commercial enterprise stimulated the new type of college education which began to center on a diversity of vocational aims for the purpose of serving the demands of our growing economic life. It is the entrance of a vast army of youth in quest of utilitarian education and training which has been most responsible for the new problems of college administration and for bringing into being new criteria of college education, namely, those of the industrial and business leaders who are thinking in terms of business efficiency and dispatch. These criteria not only have affected engineering, technical, and commercial education but also much of the work in colleges of liberal arts and science.

The enormous expansion in industrial activity which must bear a full share of responsibility for the changing attitudes and practices in higher education best may be illustrated by the following statements: In 1902 there were 3,620 power plants in the United States; in 1917 these increased to 6,542. In 1928 this number was reduced to 4,352, but the size of the average power plant in 1920 was seventeen times greater than that of 1902. The capital invested in 1902 was half a billion dollars; in 1928 it had increased to 10.3 billion dollars. Considering the total production of the following commodities during the history of the country, 78 per cent of our coal, 92 per cent of our oil, and 98 per cent of our electric power were produced since 1900.

The horsepower of all prime movers in the United States in 1900 was estimated at 70,000,000, including work animals, engines, automobiles, ships, railroads, mines, manufactories, and electric central stations; in 1928 this horsepower reached the figure of 1,026 millions.

These figures and their relation to education are little understood, but they may be grasped in their full significance by those who attempt to estimate the number and the many kinds of trained men and women who have participated in and helped make possible these industrial changes and who have reached positions of leadership. Even in the field of electric power, Prof. Charles F. Scott, of Yale, says: "The growth in this field has been so rapid that school and college textbooks have not been able to keep up with the changing facts."

The change in fundamental sources of power and expansion of our transportation systems has transformed us from "a Nation of individuals to a Nation of interdependent social groups with dependent economic relationships and clearly defined duties to each other."

As these new influences have increased a tide of heterogeneous youth has placed added responsibility on the college and secondary school standardizing associations. These associations, instead of being confronted with the differences of aims, standards, and modes of control of approximately 600 institutions, have come directly or indirectly into contact with the questions of standards of nearly 1,100 institutions increasingly diverse in character.

The articulation of secondary schools with the colleges—a relatively simple matter before the war—has been complicated by the extension of the secondary-school system to include to a large extent the junior high school from beneath and the junior colleges from above, with all their many subdivisions of technical or vocational study.

For 16 years the principal accrediting agencies had promoted a greater unity in standards of high schools and colleges by meeting as a joint body, known as the National Conference Committee on Standards of Colleges and Secondary Schools, nevertheless a more comprehensive and representative organization was needed to study the questions of increasing costs of education, improved selective processes for college entrants, and other important problems of general and continuing nature that readily could not be financed and studied in thorough fashion by other existing higher educational associations. The merging of the National Conference Committee with the American Council on Education in 1923 gave additional strength to the latter agency, which already had begun to serve higher educational interests on a broad foundation.

THE WORK OF THE AMERICAN COUNCIL ON EDUCATION

One of the principal factors in the promotion of higher educational progress within the past decade has been the American Council on Education. This organization was established as a result of a war

emergency in 1918 under the name of the Emergency Council on Education. Its purpose was to help the colleges serve the Government in prosecuting the war. It served as a mediating agent between the War Department and the colleges in matters pertaining to training of technical specialists for expert service. The council brought together the leading educational associations of the country and obtained for the Government the support of both public and private educational agencies. The council included at that time the Association of American Colleges, the National Association of State Universities, the Association of Urban Universities, the Association of American University Professors, the Association of American Medical Colleges, the Society for the Promotion of Engineering Education, the National Education Association, and the Catholic Education Association. The name of the council was changed after the first meeting to its present designation. The first president of the council was Dr. Donald J. Cowling, of Carleton College.

The success of the American Council on Education in helping colleges to deal cooperatively with the immediate educational problems relating to the war was sufficient to warrant the continuance of its work in attacking the numerous problems which resulted from the rapid postwar expansion of universities and colleges. Under the administration of Dr. Samuel P. Capen, as first permanent director, the council rapidly expanded its institutional constituency, began a definite program of study, and established the Educational Record, the first quarterly published in this country devoted primarily to the interests of higher education. During the administration of the present director, Dr. Charles R. Mann, and the former assistant director, Dr. David Allan Robertson, the council has grown to include within its organization 23 constituent members, including the leading national educational associations primarily concerned with college and university relations, 23 associate members, consisting of societies, foundations, and other educational organizations dealing with particular phases of higher educational activity, and 253 colleges and universities, of which 64 are publicly controlled and 189 privately controlled. The constituent and associate members for 1930–31 are listed as follows: American Association of Colleges of Pharmacy, American Association of Dental Schools, American Association of Junior Colleges, American Association of Teachers Colleges, American Association of University Professors, American Association of University Women, American Library Association, Association of American Colleges, Association of American Medical Colleges, Association of American Universities, Association of Colleges and Secondary Schools of the Middle States and Maryland, Association of Colleges and Secondary Schools of the Southern States, Association of Land-Grant Colleges and Universities, Association of Urban

Universities, Council on Medical Education and Hospitals of the American Medical Association, Dental Educational Council, Department of Superintendence of the National Education Association, Institute of International Education, National Association of State Universities, National Catholic Educational Association, National Education Association, North Central Association of Colleges and Secondary Schools, Society for the Promotion of Engineering Education.

The associate members include the following: Alumni Association of American Rhodes Scholars, American Association for the Advancement of Science, American Association of Collegiate Registrars, American Council of Learned Societies, American Historical Association, American Institute of Architects, American Scandinavian Foundation, Association of Collegiate Schools of Architecture, American Association of Museums, Character Education Institution, C. R. B. Educational Foundation, Engineering Economics Foundation, Federated Council of Art Education, Modern Language Association of America, National Association of Deans of Women, National Association of Placement and Personnel Officers, National Committee of Bureaus of Occupations, National Council of Religion in Higher Education, National Research Council, National Society of College Teachers of Education, National Vocational Guidance Association, Religious Education Association, United Y. M. C. A. Schools.

The American Council on Education directs its activities through standing committees, namely, those on standards, personnel, national legislative relations, international relations, and research.

Among the principal investigations and studies conducted by the council during the past decade are the report of the Commission on Educational Finance Inquiry, which deals not only with the unit costs of higher education but with other aspects of public educational finance; a comprehensive study of modern foreign language teaching; a study of university and college personnel procedure, including the preparation of psychological examinations for freshmen in cooperation with nearly 300 colleges; the preparation of experimental psychological tests in cooperation with a large group of institutions; and the preparation of cumulative record blanks for students as well as other tests which are indicative of student achievement.

Among other activities promoting better relations between American higher educational institutions and those in foreign countries has been the sponsoring of an experiment known as the "Junior Year Abroad." For a number of years selected groups of students from American colleges have spent the junior year in foreign universities, and in most instances have been given credit for the work done.

In 1928 the council published a handbook entitled "American Universities and Colleges," a standard book of reference for higher education in America.

For a number of years the council has studied critically all proposed or pending Federal legislation pertaining to education and particularly as it relates to the establishment of a Federal Department of Education. In this connection President Hoover and Secretary Wilbur appointed the director of the council as chairman of the National Advisory Committee on Education of 51 members, although this committee has no official connection with the council. It is the purpose of this group to chart the basis for the future relations that should exist between the Federal Government and education. The Julius Rosenwald Fund granted $100,000 in support of this project and Dr. Henry Suzzallo was appointed director of the study. Although the committee's work enters several fields of education, the relations of the Federal Government to higher education will be one of the most important parts of this investigation.

To these activities the council recently added a program of educational research. The new committee on problems and plans in education in charge of this program will have the responsibility of formulating a comprehensive program of educational investigation. The recommendations of this committee are expected to be of great value in guiding philanthropy in the wise allocation of funds for educational research purposes. The work of this committee has been given the support of the Julius Rosenwald Fund through a subvention of $35,000 for three years, with the possibility of further assistance.

The most recent project of the council involves the critical study of student achievement. With the aid of a grant of $500,000 from the General Education Board, a series of reliable achievement tests for colleges will be prepared, and if used will place an emphasis on scholastic achievement rather than upon the accumulation of credits. The council has organized for this purpose the Cooperative Test Service under the direction of Dr. Ben D. Wood. The project will be under the general supervision of the council's committee on personnel methods, of which Dean H. E. Hawkes is chairman, and of Dr. John Henry MacCracken, who is now associate director of the council.

Through its success in obtaining funds from private sources for its projects the council has rendered increasing aid to higher education in the study of outstanding problems and in helping the colleges to concentrate for a sufficient period of time on matters of importance.

From December 1, 1919, to April 30, 1930, the council has received altogether a sum of $1,264,596.88. Of this amount $365,186.77 has

been disbursed through the general fund and $205,298.14 has been disbursed for grants for special purposes. The grants for special investigations include disbursements of $202,744.19 for the educational finance inquiry, $254,755.48 for the international education fund, and $222,307.14 for the modern foreign language study.

In view of the changes that gradually have been forced on higher educational institutions in recent years it is of interest to note that the council is now voicing the need for a revision of college standards. Dr. Charles H. Judd, the chairman of the council for 1930-31, in his presidential address of May 10, 1930, called attention to the fact that the North Central Association of Colleges and Secondary Schools, an important constituent of the council, had found many of its standards in need of adjustment. This association has therefore organized a committee on the revision of standards and looks for the cooperation of other interested educational organizations in carrying forward a similar program of revision. A series of surveys will be made by this committee. A subcommittee of five has already begun its investigations with the purpose of finding better criteria and more refined methods of measurements for the determination of excellence in college. Accrediting agencies wish to get as far as possible from mechanical or quantitative standards.

It should be observed that the American Council on Education has evolved an organization of nearly every agency of significance relating to higher education on a purely voluntary basis, unhampered by the conditions of rigid governmental control. It can focus attention on any particular problem for as long a time as the institutional group or groups may find it profitable. Its findings are given voluntary acceptance or rejection. It does not enforce standards, but is the principal private repository for the definition and unification of educational standards. It stands as one of the principal integrating forces of education of the country not only because of its special studies but because of its continuing function as a counseling and an advisory organization flexible in character.

Its approach to the consideration of higher educational activity is from the standpoint of "standards of achievement" rather than from the standpoint of "standards of time."

OTHER HIGHER EDUCATIONAL ASSOCIATIONS

Attention has been called to the function of the American Council on Education as a unifying force; however, much of the work of many of its affiliated organizations is similar in character, although limited to more specific fields. To evaluate or appraise the work of all these agencies would be beyond the scope of this report; however, attention will be given to some of the activities of the following associations.

THE ASSOCIATION OF AMERICAN COLLEGES

The Association of American Colleges has entered upon its seventeenth year of existence. Under the direction of Dr. Robert L. Kelly it has labored successfully in behalf of improved standards of efficiency in liberal arts colleges. Recently the association has given attention to the question of the enlistment and training of college teachers. In the report of the Commission on Enlistment and Training of College Teachers the following statements are significant:

"The enlistment of prospective college teachers far too important to leave to chance or to undirected student ini tive." "The first duty of a college president is the maintenance of a staff of good teachers, and the most active phase of this duty is the filling of vacancies." "The enlistment of college teachers means, in the main, the enlistment of college students before they graduate from college for the career of college teaching." The commission therefore plans to ascertain certain things with regard to the graduates of each college which is a member of this association: First, "the actual number of members of each of the last 10 graduating classes who are engaged in or preparing for college teaching and the percentage of the class represented by this number; and, second, the actual number of persons in the upper quarter of each of the same 10 classes who are engaged in or preparing for college teaching, and the percentage of those in the upper quarter of the class represented by this number."

In the association's study of "The Efficient College," the typical institution was one enrolling 1,000 students. As a large number of the constituent colleges of the association have enrollments of 500 or less, it was decided to make a careful investigation of "The Smaller College." This investigation will cover the following questions: "Educational policy, organization and administration, personnel, the 'raw material' (student supply) and the 'product' (alumni), instructional facilities and techniques, physical plant, financial situation and needs, also student life, religious life, personnel guidance, extracurricular activities, enrollment trends, and special activities."

LIBERAL ARTS COLLEGE MOVEMENT

In view of the recent tendencies which appear to challenge the established prestige of the liberal arts college, considerable activity has been aroused by the friends of liberal education in order to devise means by which the strength and influence of the liberal college may be maintained.

Consequently a conference of the representatives of 278 liberal arts colleges was called in Chicago, March 18–20, 1930. As a result of a preliminary study made by President A. N. Ward, of Western

Maryland College, attention was called to the need for a more adequate support of the rank and file of liberal arts colleges which are in a position to relieve the pressure of heavy enrollments in the larger colleges and universities. This involves largely the equalizing of support of liberal arts colleges, a more equitable distribution of endowment funds among the large group of smaller colleges as compared with the heavy endowments of a small group of liberal arts institutions.

This significant conference has been described in detail in the work entitled "The Liberal Arts College Movement," edited by Archie M. Palmer, associate secretary of the Association of American Colleges. Among the more important duties of the leaders of this movement are "to set forth the place of the college of liberal arts in higher education in the United States," and to "cooperate with colleges approved by the movement in securing funds adequate to their needs." It has been estimated that at least $1,000,000,000 will be required to meet the needs of the majority of liberal arts colleges in order that they may render the maximum service.

THE AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

This organization, which came into existence at nearly the same time as the Association of American Colleges 17 years ago, has to-day a membership of 7,986. As a national agency for the protection of the interests of college teachers and for promoting their professional welfare, the association has greatly strengthened the college teaching profession and added to its educational efficiency through its activities in behalf of security of tenure, academic freedom, pension and insurance systems, and improved economic conditions of college teachers. It has also encouraged research among teachers.

The secretary, Prof. H. W. Tyler, announces that the association has just begun a new investigation of the tenure of college teachers. This will include a study of types of contracts used, customary length of tenure, and other conditions relating to the question, as well as the nature of the organizations controlling existing systems.

The association has dealt with 54 cases relating to academic freedom and tenure in 1928 and 1929, and has also given counsel on request to university officers who were desirous of utilizing the best procedure in making faculty readjustments.

At the seventeenth annual meeting held in December, 1930, the association passed an important measure directed against the entanglement of college officials and teachers in activities such as propaganda in behalf of public utilities. The effect of this measure is to require full publicity as to the names of both parties concerned

in such affairs, and to make public the fact that compensation is being paid to the college officials by the other party or parties.

THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN

This association is entering upon its fiftieth year of existence. It is now undertaking, under the direction of Dr. Katherine McHale, the executive and educational secretary of the association, a study of the changes and experiments that have been undertaken in recent years in liberal arts colleges. This study, which is a part of a program of research information service in secondary and collegiate education, will cover three fields: Care and direction of students, curriculum and instruction, and organization and administration. Already a study of 36 colleges has been made, particularly with reference to the current changes that have influence on the student's life. It is expected that this study will be completed in two years. The association has also recently published, among other bulletins, a Study of College Entrance Requirements, by Miss Carrie Mae Probst, of Goucher College. This includes an analysis of the entrance requirements of 14 representative women's colleges, 4 coeducational colleges, and 5 universities. The association is also beginning a cooperative study of Deans of Women in Institutions of Higher Learning. It is also setting up a more objective technique as a basis for considering the place of women on faculties and student bodies in colleges and universities. Direction is also being given to the thought that women's colleges, having passed the day when they must justify their right to compete on the same intellectual basis with men's colleges, have the right as well as the duty to render a special service through leadership in those fields bearing on human relations and the family.

THE ASSOCIATION OF AMERICAN UNIVERSITIES

This association has given special attention in its conferences to matters improving the quality of graduate instruction. Nevertheless it does not attempt to standardize graduate schools.

In the report of the thirty-first annual conference, Dr. Adam Leroy Jones, of the committee on classification of universities and colleges, calls attention to a memorandum of procedure which is advised for institutions seeking approval of the association for inclusion in its accepted list. The report also announces the association's adhesion to the principles and standards set up by the American Council on Education. It also recommends to the various regional and national standardizing agencies a series of principles and minimum requirements which should be observed and considered in the accrediting of colleges.

One of the association's most important recommendations is that referring to foreign-language requirements for higher degrees.

1. We regard a knowledge of foreign languages as indispensable to the pursuit of research in all fields. Hence candidates for the doctorate of philosophy may reasonably be required to have a working knowledge of one or more foreign languages.

2. Since much of the dissatisfaction of present foreign-language requirements in graduate schools is traceable to inflexible general requirements and methods of administration, we recommend that the administration of these requirements, like that of other requirements in special fields, be left to the determination of departments or divisions concerned.

THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES

This association has given considerable attention recently to a redefining of its purposes. Consideration was given to its history, the development of its standing committees, and its program. President W. B. Bizzell suggested the following questions as the basis for a modern program for the association: Sources of revenue for the maintenance of our institutions; the educational policies of the National Government as related to the educational problems of the different States; relation of the State university to other State-supported institutions; organization for efficiency and economic utilization of facilities; improving the quality of instruction and measuring the results of educational accomplishment; extent, quality, and administration of research; student activities and the problems of administration resulting from them; problems and policies of adult education as an educational function of the State university.

The existing methods of control of State universities, their functions, and their methods of obtaining financial support were brought out in considerable detail. The importance of the State university as an agency for both educational and general research was also stressed.

THE AMERICAN ASSOCIATION OF JUNIOR COLLEGES

This organization, which came into existence following the call of President George F. Zook in 1920, has served to promote the development of the large group of junior colleges that now form an important phase in our educational system. The membership at the beginning of 1930 included 200 colleges located in every State but five and in the District of Columbia. The definition of the junior college as given in the 1930 report on standards is as follows:

The junior college, as at present constituted, comprises several forms of organization; first, a 2-year institution embracing two years of collegiate work in advance of the completion of what is ordinarily termed the twelfth grade of an accredited secondary school; secondly, the institution embracing

two years of standard collegiate work integrated with one or more contiguous years of fully accredited high-school work administered as a single unit. The aims of the curriculum in either case are to meet the needs of the student for maximum growth and development, to further his social maturity, and to enable him to make his greatest contribution as a member of society.

The association has not attempted to rate schools of its group, but has formulated standards which will assist in molding a "proper sentiment" for the junior college. It expects accrediting will be undertaken through existing agencies. Junior college standards are set up in nearly two-thirds of the State departments of education and by a number of State universities. The only accrediting organizations that have set up standards for junior colleges are the American Council on Education, the Association of Colleges and Secondary Schools of the Southern States, the North Central Association of Colleges and Secondary Schools, and the Northwest Association of Secondary and Higher Schools. The Association of Colleges and Secondary Schools of the Middle States and Maryland adopted in 1927 the standards recommended by the American Council on Education, but it has not accredited any junior colleges up to the present time.

THE NATIONAL EDUCATION ASSOCIATION

This association has studied, through the committees on secondary education and professional and higher education, the problems connected with the articulation of secondary and higher education. The work of these committees is reported in the Seventh Yearbook of the Department of Superintendence, 1929. It has ascertained the principal difficulties which public schools encounter in their articulation with the colleges, the effects of entrance requirements on the curriculum procedures in local school systems, the attitude of secondary school pupils toward college entrance subjects as compared with other subjects, the effect of the junior college on the articulation problem, and other questions of similar importance.

From the standpoint of professional and higher education it has redefined articulation in its several aspects. It has also defined the liberal arts college, the American university, and its component divisions or schools. The several methods of selecting college students have been classified, and the devices that have been set up for improvement of student adjustment as relates to articulation have been discussed.

COORDINATING AGENCIES FOR GRADUATE WORK AND RESEARCH

The stimulation and coordination of the many phases of research activity, including graduate work, has occupied the attention of a number of organizations that give the whole or a part of their time

to such work. The American Association for the Advancement of Science and its associated societies have been of considerable service to graduate students and research workers through their use of doctor's dissertations and research contributions of college officials in their regular programs. It has been estimated that approximately one-fifth of the papers presented at association section meetings are from these sources.

The Smithsonian Institution has on numerous occasions stimulated research in universities through special grants, and through its International Exchange Service it exchanges scientific, literary, and governmental publications with foreign governments, institutions, and investigators. It publishes the International Catalogue of Scientific Literature. It also loans works of value to those engaged in certain fields of research.

THE NATIONAL RESEARCH COUNCIL

The National Research Council was established in 1916 by the National Academy of Sciences and was put on a permanent basis in 1918 by President Wilson. The council includes in its membership the representatives of over 70 scientific and technical societies, Government bureaus, and other research organizations, and is one of the largest and most highly organized research institutions in the world. It has devoted its attention primarily to the stimulation and coordination of research in two group fields. The first includes science and technology, engineering and industrial research, chemistry and chemical technology, geology and geography, the medical sciences, biology and agriculture, and anthropology and psychology; the second group is concerned with Federal relations, State relations, and educational relations pertaining to research.

The council through its organization is enabled to bring into cooperation the forces of business and industry with university and other research agencies in the fields aforementioned. Through generous gifts from various sources the council has maintained a large number of postdoctoral research fellowships. One of the outstanding features of the organization of the Research Council is the bringing together each year of outstanding research men of the country to be chairmen of the several technical divisions of the council. This rotation among the leaders of research as coordinators for their special fields has proven of great value in bringing research to a high plane of efficiency.

SOCIAL SCIENCE RESEARCH COUNCIL

The Social Science Research Council has been in existence since 1923. It has promoted research studies of the activities of human

beings in those divisions coming under the purview of the constituent organizations. The members of the council include the American Anthropological Association, the American Science Association, the American Historical Association, the American Political Science Association, the American Psychological Association, the American Sociological Society, the American Statistical Association, and certain members at large. Committees on regional research have been set up experimentally, one for the development of social sciences on the Pacific coast, the other for the southern region. The council has awarded 86 social science fellowships to members of the teaching staffs of a large number of universities and colleges, and many of the proposed studies will be prosecuted in foreign countries. Among the many studies being stimulated by the council are business research, corporate relations, crime, the family, industrial relations, international relations, interracial relations, philanthropic financing, population, public administration, social and economic research in agriculture, and social statistics.

AMERICAN COUNCIL OF LEARNED SOCIETIES

This council, established in 1919, represents the United States in the International Union of Academies. The council is devoted to the advancement of humanistic sciences. The following societies are members of the council: American Philosophical Society, American Academy of Arts and Sciences, American Antiquarian Society, American Oriental Society, American Philological Association, Archeological Institute of America, Society of Biblical Literature and Exegesis, Modern Language Association of America, American Historical Association, American Economic Association, American Philosophical Association, American Anthropological Association, American Political Science Association, Bibliographical Society of America, American Sociological Society, History of Science Society, Linguistic Society of America, and Medieval Academy of America.

The council has endeavored to bring together the elements involved in developing and handling effectively research programs in the fields covered by its members. Among its principal activities include the assisting in the preparation of a Corpus Vasorum Antiquorum, a Dictionary of American Biography, and the establishment of the publication Speculum, now the organ of the Medieval Academy of America. The council has also published a comprehensive survey of American learned societies, which gives their history, resources, and principal activities. It also has administered a number of grants in aid of research to professors and instructors in American colleges.

The council has also planned a program of study of the cultural relations between Europe and America. It has recently under-

taken an investigation of the organization of and facilities for instruction in Chinese and in related subjects in the world, and it hopes to stimulate greater interest in far oriental cultures in higher educational institutions.

THE SCIENTIFIC WORK OF THE DEPARTMENT OF AGRICULTURE

The largest and most highly organized agency for coordinating and stimulating research work in the applied sciences in relation to agriculture, home economics, and rural life in general in universities and colleges is that under the administration of the director of scientific work in the Department of Agriculture. This organization coordinates the research programs in several bureaus and offices of the department, particularly through the Office of Experiment Stations with the 50 or more experiment stations connected with the land-grant colleges and universities. A more complete statement regarding the work of the experiment stations is found in the review of the land-grant college survey included in the chapter on National Surveys of the Office of Education.

INTEGRATION EFFECTIVE

In addition to these major organizations there are a large number of research organizations of different types which function in other fields which serve the universities and colleges.

Although more in the background, this vast amount of research in all lines of human thought and activity carried on in American universities and colleges has been and will continue to be one of the main sources of the intellectual and material development of the Nation.

It is apparent from the foregoing discussion that the colleges and universities of the country are linked together in a network of organizations which tend to promote cooperation and which aid in the strengthening of scholastic standards in nearly every field. These organizations are also indicative of the almost unlimited scope of subject matter with which higher education has to deal and of the many difficulties involved in the elaboration of a suitable content for instructional purposes. Nevertheless, it is through these voluntary bonds that more than a thousand colleges and universities work together in comparative harmony. The migration of students from institution to institution is a relatively simple matter throughout the length and breadth of the land, and educational equivalence in subject matter values is generally accepted by all institutions on accredited lists. The interchange of professors of temporary periods appears to grow in favor as a stimulation to scholarship and also brings breadth as well as greater unity to higher education in general.

But these organizations and devices do not always touch many higher educational problems largely local or regional in character which demand scientific study and action. Such problems have come to be handled in many cases through institutional surveys.

HIGHER EDUCATIONAL SURVEYS

During the past decade approximately 15 surveys of State systems of higher education have been conducted under the auspices of the United States Office of Education, private foundations, and other special groups. During the earlier part of the decade surveys were limited largely to individual institutions or those coming within a public or private system within a State. The utility of these surveys has led to their development on a nation-wide basis. Among these surveys should be mentioned that of engineering education, conducted between 1924 and 1929 by the Society for the Promotion of Engineering Education, under the direction of W. E. Wickenden and H. P. Hammond, involving over 100 engineering schools and colleges; the study of athletics in American colleges, conducted in 1929 by Dr. Howard J. Savage; the survey of higher education for the United Lutheran Church in America, conducted by R. J. Leonard, E. S. Evenden, and F. B. O'Rear, involving a study of 16 colleges.

The following surveys have been conducted since 1928, under the direction of Dr. Floyd W. Reeves and associates, of the University of Chicago: A survey of Syracuse University; a survey of 34 colleges affiliated with the Board of Education of the Methodist Episcopal Church, in addition to 6 junior colleges, and 17 negro colleges affiliated with the Boards of Education of the Northern and Southern Methodist Church; a survey of 16 colleges and universities affiliated with the Board of Education of the Disciples Church [4]; and a survey of Baptist educational institutions in Kentucky. Other institutional surveys conducted by this group include Center College, Kentucky; Valparaiso University, Indiana; Northland College, Wisconsin; and Geneva College, Pennsylvania; the survey of the latter was conducted by Prof. John D. Russell, of the University of Chicago. Doctor Reeves, with the cooperation of 6 assistants and 30 part-time aides, began in October, 1930, a comprehensive survey of the University of Chicago.

A survey of Brown University was also conducted in 1930, by Samuel P. Capen, Luther Pfahler Eisenhart, and Guy Stanton Ford.

In 1930 the Society for the Promotion of Engineering Education, with the cooperation of the Office of Education, undertook a new survey of the engineering colleges that had participated in the

[4] Described in College Organization and Administration, published by Board of Education, Disciples of Christ, Indianapolis, Ind.

survey of 1924, in order to secure a measure of the progress which had been made in engineering education. Some of the findings of this report are given in the chapter on engineering education.

RECENT SURVEYS OF THE OFFICE OF EDUCATION

In 1927 the Office of Education began a survey of 79 negro colleges and universities upon the request of the institutions themselves. This survey was completed in 1928.

In 1927 the office also began work on the nation-wide survey of land-grant colleges and universities, 69 in number. This was completed in 1930.

Full summary reports of both of these surveys are contained in the chapter on National Surveys of the Office of Education.

On September 7, 1929, Gov. Harvey Parnell, of Arkansas, requested the United States Commissioner of Education to undertake a survey of the institutions of higher education of that State.

The commissioner named a survey commission consisting of Dean Withers, of New York University; President Bizzell, of the University of Oklahoma; and Arthur J. Klein, chief of the Division of Colleges and Professional Schools of the Office of Education, who completed the survey in March, 1930. The institutions surveyed consisted of the State University of Arkansas at Fayetteville, the two State teachers colleges at Conway and Arkadelphia, the Polytechnic Institute at Russellville, and the three agricultural and mechanical colleges at Monticello, Jonesboro, and Magnolia. The purpose of the survey was to recommend a coordinated program of higher education for Arkansas. To accomplish this an attempt was made to determine the proper functions of each of the seven institutions named above. A plan for the coordination of these institutions with the State department of education was recommended and at least some of these recommendations have already been incorporated in the State law of Arkansas.

OTHER HIGHER EDUCATIONAL INVESTIGATIONS

In addition to the surveys already indicated, approximately 250 colleges undertook private or self surveys in 1929, and 148 colleges likewise undertook such surveys in 1930. Although the scope of some of these surveys may have been limited, it is evident that the demand for revaluation of educational aims and procedures has reached a large group of our colleges.

In 1930 Dr. C. C. McCracken, now president of Connecticut Agricultural College, completed a study of the colleges under the Board of Christian Education of the Presbyterian Church of the

United States of America. In a strict sense this was not a survey but the development of a cooperative research program among the institutions concerned. The new program suggested includes a reorganization of the government of the 50 colleges under this board, dividing them into eight groups. Each of these groups will have a central college in which a certain amount of graduate and theological training will be emphasized. The other colleges of a particular group will fit their programs into relation with the program of the central college, creating thus a carefully integrated program and avoiding unnecessary duplication of effort. The church may then concentrate more particularly on those phases of education in which the church or the constituency of the church might be interested. This plan will tend to conserve the independence of the Presbyterian colleges, yet at the same time provide and require such cooperation and organization that the colleges will be on a sound educational and financial basis.

PART II. EMERGING TYPES OF COLLEGES AND UNIVERSITIES

In the foregoing section attention has been called to the objective or external aspects of the higher educational situation in the United States and the principal means by which adjustments or revaluations are made through outside organizations.

However, the internal aspect of adjustment may be more clearly shown by an analysis of the plans of typical colleges and the numerous devices by which students are selected and distributed through the more or less complicated mechanism of college or university organization. The great problem in higher education in recent years has been what to do with the student after enrollment; how do colleges present an educational menu that is appetizing as well as wholesome, whether it be table d'hôte or à la carte? Does the student follow the cafeteria procedure in educational food selection or is he waited upon by a retinue of table functionaries who are available to adjust the meal in delicate fashion to the appetite and, if this is lacking, to suggest or furnish suitable appetizers?

PERIOD OF EXPERIMENTATION

The decade has witnessed a growth of experiments which bear on student adjustments. In the effort to improve selection and to obtain a maximum of scholarly achievement it has been the aim of a score or more colleges to test new procedures in curriculum organization, educational orientation, teaching methods, and in housing.

A characteristic feature of curriculum reorganization in many of the new educational programs is the concentration of college work into four or five major divisions of work, each division serving to integrate and bring into harmonious cooperation the work of those departments that naturally belong to a major division. Such a program may be illustrated by the new plans of the University of Chicago, Colgate University, Cornell College, and those for the new Bennington College.

The new plan of the University of Chicago is as follows:

> The university will comprise four upper divisions, including the humanities, social sciences, physical sciences, and biological sciences, and two groups of professional schools which articulate with the college. All students must enter the college for a general education, leave by passing comprehensive examinations and enter one of the four upper divisions or professional schools or be granted an honorable and dignified exit. The comprehensive examination may be taken at any time the student feels competent.

Once in the upper division, the student will graduate by passing a comprehensive examination.

> The professional schools will award all professional degrees and the divisions will be responsible for the award of all nonprofessional degrees. The bachelor's, master's, and doctor's degrees are to be granted on the recommendation of the entire division and not by one department. * * * By the abolition of credits emphasis will be placed on the knowledge of the subject matter rather than on the acquisition of credits. The successful evolution of this plan will continue the increased stress now being made on achievement.

The Colgate University plan is based upon a successful experimental first-year survey course in philosophy and religion, and the university has added four more first-year survey courses, including the physical sciences, the biological sciences, the social sciences, and the fine arts. These survey courses constitute the basic elements of five of six schools. The sixth school, which is concerned with languages, does not have a survey course, as languages do not lend themselves to such a procedure. The freshman student, after completing the five required survey courses, chooses one of the six schools for concentration in the remaining years of the college program; however, this does not mean that the student is limited to the work of one school. The new plan has the advantage of bringing greater coherence between the departments constituting each school as compared with the lack of coordination between the 20 or 30 departments under the old plan.

The program of Cornell College, Iowa, emphasizes general education during the first two years of the course; the student must then take at least eight hours each in the following fields of concentration: Social sciences, natural sciences, fine arts, language and literature, philosophy and religion.

The study plan of Bennington College, a school for women, will require students to become acquainted during the first two years with the significance of all four of the major fields—science, literature, social studies, and fine arts. The tool courses, such as mathematics and foreign languages, will be prescribed only if needed in the major field. In the last two years those who have ability will be allowed to concentrate in a major field. Of interest is the plan for housing students in dwellings holding 20 students each. Each house will have a detached suite for a faculty member which will serve as a social center for other faculty members.

Another development in curriculum reorganization is that made in 1930 at George Washington University. This plan is based upon a 2-year junior college, and is followed by a 3-year senior college program, leading directly to the master's degree. The A. B. degree is granted as usual at the end of the fourth year. The departments of the senior college are grouped into four major divisions: Languages and literature, mathematics and physical science, natural sciences, and social sciences. This plan limits the control of the work leading to the Ph. D. degree to the graduate school.

Lafayette College has developed within the past decade a phase of liberal arts instruction in the fundamental disciplines in political science and law which serves to give a fundamental motivation in the subjects required in this field. In the department of government and law, instruction is designed to prepare the potential citizen for intelligent participation as voter, taxpayer, or public official in the complex political life of the day and to give to those intending to enter law school a preliminary training in legal analysis and an introduction to political and social problems. This department is housed in a classic building designed for the purpose, known as the Hall of Civil Rights, a gift in 1930 by Fred Morgan Kirby. The building includes a departmental library in government and law, with adequate equipment for laboratory methods in these fields. It also includes a political science museum which assists the student in visualizing the activities of the Government. The classroom equipment allows for the greatest comfort and freedom of the student in carrying out his class projects. As a further incentive to activity the college is emphasizing the relations of the United States with Canada and the Republics to the south, as it is in these countries nearest to us that the student will find new opportunities to utilize his knowledge.

The concentration of related departmental activity toward specific ends is also applied in colleges for women. In Vassar College, the departments of botany, chemistry, child study, physiology and hygiene, and psychology are used as the basis for the study of

euthenics, which has for its purpose the correlation of modern sciences bearing on problems of living, particularly the home and family. A similar program centering on human relations and the family has been developed at Mills College.

Rollins College, Winter Park, Fla., since 1926 has focused attention on improved methods of college instruction. In addition to limiting its enrollment to 700 students, it has enlarged its faculty so that there is a ratio of less than 10 students to a professor.

The experimental college of the University of Wisconsin, which has been under the direction of Dr. Alexander Meiklejohn since the fall of 1927, has just completed the last year of its program. The principal endeavor of this experiment has been to discover means of improving instruction for freshmen and sophomores. In the teaching methods it has emphasized procedures that are based upon the independent work of the student, and it has stressed the careful study of civilization as a whole during its most significant periods. It is the plan of the university authorities to make in the near future a critical evaluation of this experiment, with the purpose of giving permanence to those procedures that have proven themselves to be of value.

The new plan at Columbia College, Columbia University, has now been in operation for more than three years. It is based upon a very careful selection of the student through thorough placement examinations and achievement tests. The student is then introduced during the first two years of his college course to a careful study of the great problems of education, religion, economics, government, and social procedure that he must meet in American life through a very broad and inclusive course in contemporary civilization. With these beginnings, according to Dean Hawkes:

> The whole collegiate curriculum is developed toward the end of affording each student a chance, not only to lay a solid foundation but to build a superstructure, the architecture of which conforms to his own individual ambition, ability, and temperament.

The Princeton plan of 1924 has also completed a 4-year cycle and is on its second cycle. The program, according to Dean Eisenhart, begins its significant features in the junior year, at the beginning of which the student selects a field of concentration in which the major part of his study will be done in the next two years. Having taken two courses each term in this department and two other courses for which he is qualified, the student must make an individual study of a subject in the field of concentration aside from the courses. A comprehensive examination must then be passed in the field of concentration. Although there has been some change in the operation of the preceptional system of instruction, attention is called to the plan of independent study.

The preceptorial conference gives the student an opportunity to learn how to read in connection with the course. In his independent reading he makes use of the same process, but it is for him to coordinate the material without the aid of lectures which to a greater or less extent supply this element in the case of courses. It is intended that this process shall develop initiative and a sense of responsibility in the student.

A student's knowledge of his subject is tested by the regular examinations in his courses of the first term each year, by a general examination at the end of junior year upon the work of the year, and by a comprehensive examination at the end of senior year upon the work of both years. These examinations are planned so as to determine not only a student's knowledge of detail but also his appreciation of the broader aspects of his subject and the relations of the various parts. The papers written in connection with his independent study during each of the two years, mentioned above, are counted as part of the examinatoin at the end of the year. By these two means we are enabled to determine more adequately the degree of a student's mastery in his chosen field of study.

There is another aspect of the question which deserves comment. Whereas formerly the course was the unit of instruction and there was no consideration of the effect of a combination of the courses in the development of the individual student, now the whole of a student's work in his department is the unit, and the question of the education of the individual is paramount.[5]

The Harvard house plan is another means to the end of helping students to take their education seriously, not by diminishing non-academic activities but by changing the atmosphere and improving the interest of the student in scholarly pursuits until there is a proper balance beween these apparently divergent interests. The plan calls for seven houses, which will be required to care for all upper classmen who may desire to live in residence. Some of these are nearly completed and are models of efficiency and comfort.

President Lowell explains the new student houses as—

attempts to form communities which will embody and promote the spirit that we have been trying to introduce into the college. We believe they will make the undergraduates feel themselves members of an association whose object is their education, or rather providing them with an environment conducive to their educating themselves; a place where scholars may not only be listened to in the classroom but conversed with informally, an atmosphere challenging discussion and thought on the part of all capable of profiting by a university education.

Another type of educational housing has just been proposed as a part of the new plans for Brown University. This refers to the creation of departmental communities:

These establishments, which are designated laboratories in the case of the scientific departments, should include a departmental library as the central feature, offices and studies for the staff, seminar and conference rooms, classrooms large enough fot advanced classes, and such apparatus, ornaments, and illustrative materials as tend to create an atmosphere appropriate to the subjects and inviting to the student. Here they find not only the books, materials,

[5] Princeton Alumni Weekly, Jan. 16, 1931.

and an atmosphere conducive to study but also intimate contacts and association with professors and graduate students which it is a fundamental policy of Brown to promote.[6]

STUDENT ADJUSTMENT IN TYPICAL INSTITUTIONS

An interesting study of the development of administrative organizations as related to student adjustment in typical colleges and universities recently has been completed by Dr. Harold F. Cotterman, of the University of Maryland.[7] Following a general preliminary survey, 63 institutions were studied, including publicly and privately controlled schools, junior colleges, coeducational institutions, men's colleges, women's colleges, and other special types. From this group the following schools were intensively studied. Antioch College; Columbia College; Columbia University; Dartmouth College; the Experimental College, University of Wisconsin; Harvard College, Harvard University; Junior College of Kansas City, Mo.; Johns Hopkins University; Ohio State University; Princeton University; Reed College; Sarah Lawrence College; Scripps College; Stanford University; Stephens College; Swarthmore College; Tufts College; University of Alabama; University of Chicago; University of Cincinnati; University of Oregon; and Yale University. The findings of this study from the standpoint of organization for student adjustment indicate that at least seven types of institutions have evolved, namely, the freshman-year type, the lower division-upper division type, the junior college type, the senior college university type, the cooperative employment type, the separate divisions type, and the independent college-university type.

Colleges of the freshman-year type are found at Harvard University, Yale University, and Tufts College. These colleges and others of the same type make provisions for student adjustment in the freshman year by providing special officers, special deans, special faculties, personal advisers, as well as different methods of teaching. A careful study of freshman problems is made in order to advise students in a wise selection of programs and courses for the succeeding years.

The lower division-upper division type, represented by Stanford University, Reed College, University of Chicago, University of Minnesota, and the University of Oregon, tends to place student adjustment on the foundation of the secondary-school program, with college education as the continuation of a program begun well down in the secondary-school period. In this type the lower two years

[6] Bulletin of Brown University, October, 1930.

[7] Student Adjustment in Recent Programs of Higher Education. Unpublished dissertation, the American University, Washington, D. C., 1930.

of college life are largely preparatory to the more professional and intensive programs of the upper two years' work.

The junior-college type, such as the Junior College of Kansas City, Stephens College, and Sarah Lawrence College, presents the possibilities of limiting the instruction to the first two years of the college level or the lower division type of instruction. It lays the basis for the adjustment of students either with the more advanced work as offered in upper division courses, or directly with the semiprofessions or professions, by giving the essentials of preprofessional training without the usual degrees. It also provides terminal cultural programs for those who wish to conclude their college work at the level of the second year of college.

The senior college-university type represents an organization devoting most of its energies and resources to senior-college work integrated with a high order of advanced professional and graduate work for carefully selected students. Institutions that have been anticipating or testing a program of this type include Stanford University and Johns Hopkins University.

In the cooperative employment type, such as the University of Cincinnati, Antioch College, and the College of Medical Evangelists, emphasis is given to student participation in the carefully coordinated practical affairs of life either as a part of his professional training or as a special discipline, under the immediate supervision of practical men, in addition to theoretical study, both as part of the professional and cultural phases of the program.

The separate division type, as represented by a number of State universities, appears to make the least provision for adjustment machinery; however, in certain cases there is promise of a change toward a system of interrelated divisions or other type of adjustment organization.

The independent college-university type, represented by the Claremont Colleges, Harvard University through its residence halls, and the experimental college of the University of Wisconsin, extends advantages and privileges of the small residential college to other units of the university, and combines these with the other advantages that come with a large institution.

ADJUSTMENT THROUGH ENTRANCE REQUIREMENTS.

Doctor Cotterman's study also indicates how the manifold aspects of college entrance requirements are being used more and more to relate the student in the most advantageous manner to the college program. Adjustment proceeds on the basis of the "allocation of the variants in human talent to the many channels and levels of life

for which higher education may be beneficial through flexibility in entrance requirements and variation in institutional requirements to meet the difference in institutional purpose."

Adjustment is facilitated when there is sufficient flexibility in the articulation of higher education with secondary-school programs to permit considerable exploration in secondary education without closing the possibility of pursuing advanced generalized and specialized college programs.

Adjustment is also facilitated by the elimination of waste of time through placement and proficiency tests, through use of comprehensive high-school performance records as systematic personnel data in the counseling of college students.

ADJUSTMENT BY COLLEGE YEARS

It appears that each of the four years of college tend to have specific functions of their own as relates to the adjustment of the student.

The freshman year.—Among the more important adjustment functions of the freshman year that appear are the following: The freshman year is a period of transition from the more or less well-taught and supervised work of the high school to the more independent and more self-directed work of the succeeding years of college. It provides by the careful selection and encouragement of the faculty at this level a higher type of instruction, thus aiding in adjustment. It provides for subject matter which introduces and unfolds to the student the various fields of learning and affords opportunity for him to discover the unity and interrelatedness of the various classifications of the world's knowledge, which by its nature arouses interest in more detailed examination of some of those fields in the succeeding college years. It prepares for work of the later college years through courses furnishing the tools or symbols of higher learning. It gives an opportunity to explore a field for concentration or for professional training through provision for election in a desired direction. It gives the foundation as far as possible for the choice of a wise program of studies. It helps the student to become acquainted with the college mode and level of work and with himself as a college worker. It serves to eliminate students who are unfit for college.

The freshman year also provides a period for determining future scholastic privileges, inasmuch as honors courses and similar privileges are usually based on the quality of work the student does in the first two years of college. It provides for as much opportunity for self-direction as possible in order that it may become the student's permanent mode of procedure. It permits the discovery of gifted

students and weak students in order that provision in the way of methods of study, appropriate loads, and individual programs may be made for such students early in their college careers. It also provides for making the freshmen feel at home and for furnishing them with high-grade faculty advisers who study their individual characteristics, their ambitions, abilities, special aptitudes, and other qualifications with a view of assisting them in their problems of college work and life. It is the opening year of a systematic cumulative personnel record for each student. It makes provision for rich cultural contacts and high-grade associational living.

The sophomore year.—The adjustment functions of the sophomore year appear as follows: It marks the period for the completion of articulation with secondary schools as well as for the completion of lower division work. It generally increases scholastic difficulty as compared with that of the freshman year. It tends to set the pattern of the student's scholarship. It serves in part as a basis for the determination of future scholarship privileges. It provides a time for the elimination of students not fit by nature or inclination to be advanced to higher college levels. It provides for the pursuance of courses of study sequential to the vision-giving courses of the freshman year. It provides for free electives with avocational interests in view. This year also provides contacts with advisers who are in sympathy with the student's major interests and who will guide the student in terms of those interests if courses are terminal, or through proper rules of concentration and distribution if the student is to continue through college. It provides a final period for limited specialization or cultural study for those for whom the sophomore year college courses are terminal. It begins preparation in the requirements of major departments of the upper years of college; hence is a period for the beginning of specialization and the study of more advanced methods of university work.

The junior and senior years.—The outstanding adjustment functions of the junior and senior years may be grouped as follows:

These years provide for the pursuit of a major interest thoroughly, systematically, with unity, and to a considerable degree of mastery, either along professional lines or in a field of scholarly investigation or speculation. They provide preparation for advanced professional and research work. They provide opportunity for the development and pursuit of avocational interests through provisions for distribution, free electives, and self-directed programs of study. They provide, through contact with advisers in major departments who possess a thorough appreciation of the need and nature of the various phases of higher education, for the consideration and election of sound programs of study for the students of these years.

These years lend particularly to development of depth of thought, breadth of vision, ability to integrate knowledge, capacity for critical analysis, and promote sound standards and tastes in living through contacts in classrooms, in small group or individual conferences, in seminars, in colloquiums, in residence halls, and in campus life generally, and by means of such devices as preceptorial methods, term papers, theses, reading courses, comprehensive examinations, senior fellowships, and the like. They provide opportunity for the development of habits of self-direction both in routine and in creative work.

The junior and senior years promote the development of gifted students through provision for large amounts of freedom and self-direction in the selection and pursuit of studies and through special methods of appropriate stimulation. They provide for a wide range of student focus from the professional and advanced research points of view and from the point of view of appropriate cultural concomitants. In these years there is a maintenance of standards of scholarships in both professional and cultural work appropriate to these levels of college effort.

SPECIAL PROVISIONS FOR GIFTED STUDENTS

In general, provisions for the adjustment of gifted students are increasing.

Many provisions for stimulating gifted students are making their appearance in higher education beginning with the consideration of entrance requirements.

Honors courses, independent study plans, and self-directed programs of study hold out special opportunities to gifted students for self-realization along lines of special aptitudes.

Where a high all-around level of scholarship is required for honors privileges, persons gifted in but one line may not receive the stimulation necessary for the development of their particular talent.

Honors courses and the special stimulation provided in connection with them are having a decidedly good effect on both student and faculty at Swarthmore College, where a special study is being made of such effects, and students as a whole in after life are grateful for the privileges the self-directed study plan gives them.

There is great need in a wealthy democracy such as the United States for an arrangement in higher education which will stimulate superior minds to the highest possible development and which in no sense will hold such minds to the slower paces of high average and average groups.

Privileges of completing college in three years, of reducing total requirements for graduation or of increasing course credits for

thorough, high-grade work, and of trying for the usual kinds of graduation honors play parts in stimulating gifted students.

Doctor Cotterman's study also brings out the adjustment aspects of instructional effort, as well as of advanced professional and research training.

This study is indicative of the great number of means and devices which may be used to facilitate the student's progress in college so that he may relate himself in the most satisfactory manner to the educational programs which may be offered.

RECENT DECISIONS AND ENACTMENTS TOUCHING HIGHER EDUCATION

Military training at the land-grant colleges.—The question of required military training in the land-grant colleges has become controversial in recent years, because of a certain ambiguity in the original act. In order to clarify this matter, the Attorney General, upon request of the Secretary of the Interior, gave his official opinion as to whether agricultural colleges having grants under the act of July 2, 1862, and amendatory acts are required to include military tactics among the compulsory courses of study or whether they may simply offer this subject as an elective course. After carefully reviewing its legal aspects, the Attorney General included the following statement in his reply:

> I therefore advise you that you are justified in considering that an agricultural college which offers a proper substantial course in military tactics complies sufficiently with the requirements as to military tactics in the act of July 2, 1862, and the other acts above mentioned, even though the students at that institution are not compelled to take that course.

An important judicial decision on the junior college.—According to a recent study by E. O. Brothers,[8] only about one-fourth of the States have laws which legalize the junior college as an extension of the high school. Twenty States are reported as having junior colleges of this type. Doubtless greater opposition to this apparent expansion of the high school is due to the fact that it is the continuation of the work of a legally accepted institution. In several States the public junior colleges apparently have no legal authority for their establishment.

However, opposition against the operation of a junior college as a part of the public-school system was raised in Asheville, N. C. The board of education of Buncombe County and the school board of Asheville defended their right to maintain and operate the junior college and pay its expense of operation from the Asheville public-school fund. The superior court of Buncombe County took the posi-

[8] Reported in School Review, December, 1930.

tion that the junior college was not a part of the public-school system of North Carolina and forbade the maintenance and operation of the junior college out of the public-school fund of the city as a local tax school district.

The case was then brought before the supreme court of the State, which reversed the decision. The decision stated in part:

> It appears from the statement of facts * * * that the predecessors of the defendants * * * established as part of an adequate and sufficient school system of public schools for the city of Asheville the junior college. That they had the power to establish and maintain said college in the exercise of their discretion it seems to us can not be questioned. * * * We are of the opinion that the defendants have the power, in the exercise of their discretion, to continue to operate the junior college heretofore established and maintained by their predecessor * * * certainly so long as they can do so without the levy of an additional tax for that specific purpose.

This decision is one of great importance in determining the legal status of the junior college as a part of the public-school system.

THE QUESTION OF THE RHODES WILL

For nearly a quarter of a century this will has provided for the selection of two Rhodes scholars from each State of the Union to attend Oxford University. Until recently scholars were selected annually from two of three groups of 16 States each, one group dropping out every third year by rotation. Certain influences in behalf of efficiency recently have succeeded in having the British Parliament modify the original provision by dividing the United States into eight groups of six States each, with four students to be chosen annually from each group. Such an arrangement makes it necessary to pass over certain States, thus violating the explicit statement of the will.

This has led to a protest on the part of some of the leading Rhodes scholars of this country, including President John J. Tigert, of the University of Florida, who vigorously protested against the new interpretation at the meeting of the National Association of State Universities in Washingon, December, 1930.

NEGRO HIGHER EDUCATION

The past decade has marked unusual development of negro higher education in the United States. This development has not been one merely in numbers but in increased growth of the factors which make for scholarship and service. There are 80 or more negro colleges and universities in the country which are giving the whole or part of their time to college work. These include 9 institutions under control of independent or private boards of trustees, 17 negro land-grant colleges, 31 universities and colleges under

white denominational church boards, 17 private colleges under negro denominational control, as well as a number of State teachers colleges and normal schools that are not land-grant colleges.

The negro colleges now are entering actively into a period of standardization and adjustment on the same basis as colleges and universities for whites. In 1927 West Virginia State College was accredited by the North Central Association of Colleges and Secondary Schools, and is the first negro college to achieve that distinction within the jurisdiction of that association. Howard University, Lincoln University, and Morgan College for a number of years have been on the accredited list of the Association of Colleges and Secondary Schools of the Middle States and Maryland.

In view of the lack of a fully recognized accrediting agency in the South having jurisdiction over negro colleges in that area, the Office of Education in 1928 asked the Association of Colleges and Secondary Schools of the Southern States to undertake the work of accrediting negro colleges within its area of control. The association gave a favorable answer to the request, and in June, 1930, a circular was sent to institutions of higher education for negroes in the South inviting them to request inspection with a view to eventual rating by the association. By December 15, 1930, 60 institutions had requested forms and 35 had filed complete reports. The committee on approval of negro schools of the Southern Association of Colleges and Secondary Schools includes H. M. Ivy, superintendent of schools, Meridian, Miss., chairman; J. Henry Highsmith, State supervisor public schools, Raleigh, N. C.; Dr. T. H. Jack, dean Emory University, Atlanta, Ga. At the annual meeting of the association in Atlanta on December 2, 1930, the executive committee of the association, on recommendation of the committee on approval of negro schools, began the work of accrediting.

HOWARD UNIVERSITY

A very significant milestone in the progress of negro higher education is the new plan of development of Howard University in Washington. Under the old plan the university lacked a recognized policy in its relation to the Federal Government. As this relationship had never been properly defined, it was difficult to determine a satisfactory financial program. Through efforts of President Mordecai W. Johnson, with the cooperation of officials of the Government, steps were taken to give the university a more definite status in its relation to the Government. As a result, in 1928 Congress authorized the granting of regular appropriations to Howard University, and at the instance of a special committee of Government and university officials and Members of Congress especially interested requested the preparation of an adequate educational and financial

program to be the basis for future cooperative relations between Congress and the trustees of the university. This plan was prepared in 1930 and adopted by all the authorities concerned. The carrying out of this plan should bring Howard University in the future to a ranking position among American universities and make it a national center of negro culture and intellectual achievement.

GRADUATE AND RESEARCH STUDY

The growth of graduate work as represented by growth in students and in the development of coordinating agencies has been discussed elsewhere in this chapter. However, attention is called at this point to the increasing influx of students in our graduate schools whose interests are primarily professional rather than those pertaining to pure research. This is exemplified by the great increase in the number of graduate students in education.

The graduate schools in some of our larger centers have come to recognize a new type of graduate student—the college-trained business man, or man of affairs, who finds it very advantageous to take graduate courses in special fields of interest just as the physician or surgeon takes his postgraduate courses in medicine. The interest of such men usually does not lie primarily in the direction of the advanced degree but in gaining new values which may be turned into practical use.

In harmony with this tendency, the Polytechnic Institute of Brooklyn has carefully developed within the past three years, a program of graduate education in engineering leading to the master's degree. The demand for this type of study has come not only from regular graduates of the institute, but from a large number of employed engineers in the metropolitan area of New York. Regular graduate school standards are applied, but President Kolbe has added to the attractiveness of this program by bringing in visiting professors of high talent from other colleges and engineering schools. One of the advantages of the evening graduate program is given by Prof. H. P. Hammond, of the institute, who says:

> It offers one important means of solving one of the greatest difficulties of engineering education, that of providing the means for advanced study to meet the increasing demands of professional engineering work without increasing the length of the undergraduate curriculum or the time the student must spend in residence—something which the majority of engineering students can not do.

Considerable discussion has taken place regarding the objectives or aims of graduate instruction in view of the large number of graduates who enter the field of college teaching. It is a question whether the Ph. D. degree or even the master's degree does not fit the individual more definitely for research work rather than for dissemi-

nating knowledge in the classroom. Much criticism has been directed against the alleged weaknesses in classroom instruction of teachers holding the doctorate degree.

With some of these questions in mind, the Office of Education is cooperating in a study of the objectives of graduate instruction, including also some of the different administrative procedures used in graduate schools with reference to advanced degrees. The opinion and views of a large number of college presidents, deans, and heads of college departments and graduates having the Ph. D. have been obtained regarding this matter. Although presenting a number of difficulties, it is hoped that this study will help to clarify our knowledge regarding the general purposes and practices of graduate education throughout the country.

NEW RESEARCH CENTERS FOR HIGHER EDUCATION STUDY

From the standpoint of college and university administration, the establishment of well-organized and permanent research centers for the study of higher educational problems at leading university centers has been a development which promises large returns.

Among the institutions that have been conducting a definite research program in some phase of higher education may be mentioned the University of Pittsburgh, the University of Chicago, Purdue University, Teachers College, Columbia University, Iowa State University, University of Oregon, and Ohio State Universitiy.[9]

One of the most comprehensive and far-reaching programs of research is that now in progress under Dr. H. A. Toops, of Ohio State University. This includes a continuous high school-college survey, conducted by the college of education of Ohio State University and the State Department of Education of Ohio. This survey will involve the measurement of the intelligence of all high-school students in the State of Ohio, the interpretation of their scholarship in terms of their intelligence, the investigation of the economic and social status of each student at least once during the high-school career, the preparation of 12 guidance pamphlets to aid high-school principals and counselors in the interpretation of the collected data, and the examination of each student by objective scholastic tests in all subjects he is taking each year. All these data collected while the student was in high school will be placed on a Hollerith card for use of college authorities. The card will also contain a complete statement of student's educational environment while in college, listing courses taken, instructors teaching each course, and the time of day in which the course is taught. Student employment records will be kept. The results of the student's college work will be re-

[9] Association of American Colleges Bulletin, Vol. 16, No. 2, May, 1930.

corded in terms of marks and ratings, and results of different instructors will be compared and the validity of their marks studied.

Related to such research programs is the one that has been conducted by the colleges and high schools of Pennsylvania, with reference to students who pass from lower schools into institutions of higher education. Sponsored by the State department of education and supported in part by the Carnegie Foundation for the Advancement of Teaching, the study is conducted by the staffs of the colleges concerned. This study was begun in 1928 and will be continued for four to six years. It is the purpose of this study "to devise and apply certain practical procedures for transforming mass education into particular education and for enabling the individual to mount directly on his abilities and educational achievements."[10]

A number of the larger institutions are no longer willing to wait for outside agencies to evolve the data for a scientific approach to the study of their problems; they are now perfecting the techniques which should enable them to produce a series of fruitful studies in those fields in which modern methodology can be of greatest use.

Courses dealing with higher educational questions have been added to the programs of a large group of colleges and universities, too numerous to mention in this report.

SPECIAL SERVICES OF COLLEGES AND UNIVERSITIES

In addition to regular academic activities several colleges and universities have rendered a special service in the field of government and international relations through permanent institutes during the past decade. Among these are the Institute of Politics, which has been held annually at Williams College, Williamstown, Mass., under President Harry A. Garfield; the Los Angeles University of International Relations, sponsored by the University of Southern California, and chartered in 1924; the Institute of Citizenship and Government of the University of Virginia has been active since its establishment in 1927.

The most recent organization of this character has just been announced (June 30, 1930) by President John J. Tigert, of the University of Florida. This is known as the Institute of Inter-American Affairs. This has for its principal objective the fostering of better cultural relations between the United States and the countries of Latin America. The first annual meeting was held in February, 1931.

Special services are being rendered also by such schools as the Princeton School of Public and International Affairs, Georgetown

[10] Twenty-fourth Annual Report, the Carnegie Foundation for the Advancement of Teaching.

University School of Foreign Service, the Walter Hines Page School of International Relations at Johns Hopkins University, and the Johns Hopkins Institute of Law. The Yale Institute of Human Relations is an outstanding effort to coordinate study and research under the most favorable conditions of adequate housing and cooperative activity of those departments of the university that are particularly interested in human development, biological as well as sociological.

OTHER SERVICES TO HIGHER EDUCATION

The year 1930 marks the establishment of two journals covering the field of higher education. The Journal of Higher Education made its appearance January 1, 1930. It is published by the Ohio State University and is edited by Prof. W. W. Charters.

The Junior College Journal, published by Stanford University Press, and edited by Prof. W. C. Eells, printed its first number in October, 1930.

In 1930 there was established a National Committee on Standard Reports for Institutions of Higher Education. This committee, representing the principal associations concerned with college business administration, has made a study of the practices followed in the financial reports of 363 colleges and universities. Under the direction of the chairman, Lloyd Morey, comptroller of the University of Illinois, a staff of experts made two reports showing the characteristics of the financial reports of 156 of the foregoing schools. It is the purpose of the committee to reconcile the differences that exist in the various practices of institutions with the hope that new forms will be evolved which will apply to all types of institutions and which will have the same meaning.

The Pan American Union for many years has served higher education in Latin America and this country by preparing and exchanging studies showing existing educational standards and trends. This work is now conducted through the Division of Intellectual Cooperation established in 1929.

PRESENT TRENDS IN HIGHER EDUCATION

Notwithstanding criticism to the contrary, there are definite goals toward which leaders are directing higher education and which are indicative of certain trends.

The goal of universal opportunity for higher educational privilege has come to be recognized within the past decade, in spite of opposition, as one worthy of the fullest support. Justification for this belief may be found in the opinions of experienced leaders. Dr. C. R. Mann has said:

Human talents are distributed through the whole people in such a way that civilization advances farther the more complete the latent creative talents of all the people are discovered and constructively developed.

Chancellor E. E. Brown, of New York University, indicates a correlation between American supremacy in the fields of industry and commerce and the great increase in high school and college enrollments, and in view of this great economic growth there is "the need for training the people—the mass—how to provide and enjoy economic advantage." He even advises that universities should prepare for greater enrollments.

This broad expansion of higher educational opportunity does not disturb President Sproul, of the University of California. He says:

There is no danger of creating a surplus of trained men and women. Enrichment, the very soul out of which a superior life can grow, this growth comes from below by virtue of material need, not forced down from above.

Again Doctor Snedden, of Columbia University, points to the broader concept of higher education as follows:

For our day there exist scores of directions along which men and women may become highly cultured in ways and degrees that befit the democratic citizens of a commonwealth in which there is no leisure class, though all possess much leisure.

Many kinds of leadership are needed, and as Dean James Earl Russell has said: "Leaders, not aristocrats, but experts giving a particular service."

The rapid expansion of college and university extension service in recent years shows the fullness of opportunity that is being extended to the adults and others who can not take advantage of the regular college programs. L. R. Alderman, of the Office of Education, reported in 1930 that at least 443 institutions of college grade provide some extension work.

The possibilities of this type of expansion has led President Lotus D. Coffman, of the University of Minnesota, to call attention to its significance and the need for a "more adequate or satisfactory interpretation of the forces or causes responsible for the development of the movement."

With such opportunities open, it is possible that, instead of the few, many, if not all, may win the race in some form of leadership or scholarship, or specialized service to society.

Considerable criticism, however, has been made of the dangers of too much breadth and freedom in higher educational aims and programs. Typical of such criticism is that recently directed by Dr. Abraham Flexner against the multiplication of courses that

do not appear rightfully to belong to the college or university programs of study.

Perhaps more serious is the criticism which has come not from the accretion of certain border line courses of study but because of the excessive development of high-grade subject matter which represents the expansion of our scientific knowledge during the past generation. President Nicholas Murray Butler feels "that progress not only includes more refined scientific methods but also a greater synthesis and a greater purposiveness in our educational program and outlook." He also says: "We have given the stone of minute experimentation instead of the bread of interpretation."

Col. R. I. Rees, representing industry, says that "science and engineering have solved the problem of production, but our economic order has found itself swamped rather than served by the efficiency of the machine age. * * * The problems facing the college man in business have to do with human relationships. Education must equip the potential industrial leader with a fundamental knowledge of biology, psychology, sociology, economics, and the humanities."

This emphasis on purpose, interpretation, and synthesis points to a return to higher educational objectives which are more "formal" in character. Perhaps the pendulum is beginning to swing away somewhat from the objectives of "content and vocation." The history of education shows a more or less continuous oscillation between these two types of objectives.

And as this dualism in higher education has its roots deep in the past we may expect in the future to see institutional readjustments falling in line with one or the other of these viewpoints.

The further evolution of our higher educational system is not entirely clear, but there are indications that there will be a better balance between the institutions giving more formal or general training and those whose objectives are professional or vocational. The liberal arts college movement, if its program permits, should tend to strengthen the formal viewpoint.

It is the opinion of the Commissioner of Education that there will be a submerging of a number of the weaker colleges, and that in their place there will emerge a strong group of liberal arts institutions. In his address at Carleton College Commissioner Cooper called attention to the following situation:

> Probably there is no liberal arts college, or for that matter any higher educational institution in the United States, which does not fully realize that it is on trial. Few of them feel at all confident that the verdict if rendered will be favorable. There has been a change in the aims of the liberal arts college to civic and social responsibility rather than liberal education as of 50 years ago. The liberal arts college is between two millstones, the preparatory schools and

the graduate schools. The preparatory function of the liberal arts college is being rapidly assumed by the stronger high schools and junior colleges. When the college undertakes vocational and prevocational work it abandons its traditional character and takes on the nature of the American university.

I think we may look forward to a day when students will enter the professional schools of senior college level at the age of 18, and thereby save the two years' time that President Eliot wanted them to save. But at the same time it seems to me that the increased economic well-being of our people will enable many whose sons and daughters will be ready for these professional schools at 18 to give them a longer period of general and cultural education than that offered in the junior college.

There is a second group of students who should favor an institution of Carleton's type: Those who teach the so-called academic subjects in the high schools of the country or who will be preparing themselves to enter highly specialized graduate institutions for the purpose of research study. In this group will fall a large number of young people, especially women whose family fortunes make immediate vocational objectives unnecessary and who should be prepared for the highest type of home making and civic leadership. In this generation of comparatively late marriages this sort of a college will serve best the needs of these people if the college is, to use the words of Doctor Meiklejohn, "a good place in which to live as well as a good place to study."

The second possibility is for the liberal arts college to surrender its two upper years to the university, to annex two high-school years, and thereby become a junior college of the type represented by Stephens College, Columbia, Mo., and the City Junior College of Pasadena, Calif., or of Johnstown, Pa. I believe that church bodies with several colleges under their control should make a few of the stronger ones into universities.

A third possibility lies in specialization. The California Institute of Technology in Pasadena is a highly specialized school of limited size, selecting its students with great care and maintaining the best ideal of the old college at a high degree of efficiency.

Doctor Cooper also calls attention to Antioch College as a specialized form and suggests as a future plan the organization of a college on the "house plan" of Harvard University for the purpose of specializing in the fields of diplomacy and international relationships.

Whatever the existing educational trends may indicate respecting the emergence of different types of colleges, such emergence or submergence in the future doubtless will be controlled more and more by approved scientific information based upon careful experimentation; and although educational trends seem at times to be divergent, there is increasing evidence to show that the colleges are giving more recognition to the student as an individual rather than as a rapidly moving cog in a complex machine by giving greater flexibility when and where needed in the student's program but at the same time encouraging as well as requiring him to assume as far as possible full responsibility for the successful outcome of his educational endeavors.