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HIGHER EDUCATION

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By

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HIGHER EDUCATION.

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STANDARDIZING AGENCIES.

NON-STATE ACCREDITING AND EXAMINING BOARDS.

Nearly every State in the Union, through the State university or the State board of education, has, after inspection, accredited secondary schools located within its borders. A number of them have also published lists of accredited higher institutions. Naturally there is considerable diversity of practice among the several States, and hence, in the interests of uniformity, various voluntary associations composed of representatives from higher institutions and secondary schools have undertaken the work of standardizing schools and colleges. The College Entrance Examination Board serves those higher institutions which prefer to admit students only by examination, and students who wish to secure admission to college by examination.

THE COLLEGE ENTRANCE EXAMINATION BOARD.

The total number of candidates examined by the College Entrance Examination Board in June, 1919, was 12,716, as against 10,641 in the previous year. The secretary's report states that 1,327 schools sent candidates to the board's examinations in 1919. Of these, 722 were public schools and 605 private schools, from which there were 4,692 and 7,480 candidates, respectively. In addition there were 544 candidates who were either conditioned college students, or pre-

pared by private tutors, or self-prepared, or who neglected to give the information called for by the board's form of application for examination.

The secretary's report also shows that there was an increase over the previous year of 615 in the number of boys and of 1,560 in the number of girls who took the board's examination. It is interesting to note that in the number of boys from the private schools there was an increase of 590, and from the public schools a decrease of 74; and that in the number of girls from the private schools there was an increase of 716 and from the public schools an increase of 690. The increase in the number of girls taking the examination is doubtless due in considerable part to the return to the examination system of Mount Holyoke, Smith, and Wellesley Colleges.

The following table indicates the general distribution of the candidates in respect to residence, secondary school, and college:

General classification of candidates.

	Residence.	School.	College.
New England.....	5, 204	6, 657	8, 367
Middle States.....	4, 689	3, 884	3, 034
Southern Division.....	749	600	51
North Central Division.....	1, 647	1, 052	81
Western Division.....	300	196	54
Not stated and irregular.....	127	827	1, 129
Total.....	12, 716	12, 716	12, 716

A table of considerable interest has been compiled by the secretary of the College Entrance Examination Board for the decade from 1910 to 1920. It shows the number of examination books which have been graded in each subject and the percentage of them which were rated 60 per cent or above:

Subject.	Number of answer books.	Percentage of books rated 60-100.
Greek.....	8, 048	66. 1
French.....	31, 602	61. 9
Latin.....	71, 496	58. 1
Physics.....	11, 079	54. 9
Chemistry.....	6, 441	52. 1
Mathematics.....	78, 232	51. 1
German.....	23, 207	49. 7
English.....	44, 136	45. 2
History.....	28, 536	35. 9
All subjects.....	307, 865	52. 3

Several explanations may be offered for the marked difference in the percentage of students who pass the respective examinations. Some subjects may be better taught than others or there may be a marked difference in the degree of difficulty to master various subjects. The average grades of the history examinations have, however, been so low for a number of years that it was decided at the meeting of the board in April, 1920, to appoint a special committee to re-examine the content of the history requirements.

The new comprehensive examination plan is fast increasing in popularity. The number of candidates seeking admission by this plan increased from 752 in 1918 to 1,969 in 1919. Thirty colleges and universities were designated by candidates for admission under the new plan. Young women, particularly, prefer to take the comprehensive examination, as seems clear from the number who took the new plan examinations for admission to the following higher institutions: Wellesley, 417; Smith, 375; Harvard, 305; Vassar, 251; Mount Holyoke, 171; Yale, 129; Princeton, 82; Radcliffe, 73; Barnard, 55; Wells, 32.

In the list of subjects which new plan candidates elect for examination, English, mathematics, Latin, and French are the most popular. History, German, chemistry, and physics follow in the order named.

THE NEW ENGLAND COLLEGE ENTRANCE CERTIFICATE BOARD.

The eighteenth annual report of the New England College Entrance Certificate Board states that the total number of schools which had the certificate privilege in 1919 from the board was 571, of which 92 had the specimen certificate privilege. Of these 340 (about 60 per cent, as against 76 per cent last year) sent one or more pupils on certificate to the colleges represented on the board.

At the present time there are 38 schools on the trial list, and 443 on the fully approved list, making a total of 481. To these may be added 98 schools that have the right of sending specimen students on certificate, making a grand total of 579 schools that have the certificate privilege from the board for the year 1920.

The following institutions compose the membership of the New England College Entrance Certificate Board: Amherst College, Bates College, Boston University, Bowdoin College, Brown University, Colby College, Massachusetts Agricultural College, Middlebury College, Tufts College, Wesleyan University, and Williams College.

In 1919 the University of Vermont withdrew from the board in order to maintain closer relations with the Vermont State system of education, and Mount Holyoke, Smith, and Wellesley Colleges withdrew on account of their decision to give up the certificate system of admission.

THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

In the proceedings of the North Central Association of Colleges and Secondary Schools for 1920 the secretary reports 128 accredited colleges and universities. Six of these institutions were added during 1919 and three in 1920, after having been inspected by representatives of the association. In addition to these institutions the association has accredited 45 institutions primarily for the training of teachers, and 45 junior colleges. The number of accredited secondary schools was 1,353.

THE ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS OF THE MIDDLE STATES AND MARYLAND.

The Association of Colleges and Preparatory Schools of the Middle States and Maryland reported for 1919 a membership of 220, of which 65 were colleges and universities.

A commission on institutions of higher education, composed of 14 members, was appointed to adopt from time to time lists of accepted institutions of higher learning which meet the standards recently established by the association.

THE ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE SOUTHERN STATES.

The Association of Colleges and Secondary Schools of the Southern States reported for 1919 a membership of 44 universities and colleges and 43 secondary schools. Besides these, there were 18 individual members. The association has accredited 418 secondary schools.

THE MOVEMENT FOR THE STANDARDIZATION OF COLLEGES AND UNIVERSITIES.

At its annual meeting, November 28 and 29, 1919, the Association of Colleges and Preparatory Schools of the Middle States and Maryland adopted a series of standards for colleges identical with those adopted a few years ago by the Association of Colleges of New York State and since adopted by the regents of the State of New York as the official definition of that State. These standards are as follows:

DEFINITION AND STANDARDS.

An institution to be ranked as a college of liberal arts must have at least eight professors giving their entire time to instruction therein; must require for admission not less than four years of academic or high-school preparation, or its equivalent; must conduct a curriculum of four full years of approved grade in liberal arts and sciences.

It is recommended that in interpreting this definition the following standards should be employed with due regard to the fact that an institution falling below the desired standard in certain particulars may more than make good this lack by excellence in others.

1. A college year should include for each student not less than 34 weeks of actual work, of not less than 15 full periods per week of academic work or the equivalent.

2. Members of the teaching staff in regular charge of classes should have had not less than one year of graduate study, and a majority of them should have had training equivalent to that presupposed by the degree of doctor of philosophy; in all cases efficiency in teaching as well as the amount of research should be taken into account.

3. A preponderance of the teachers who have independent charge of classes should be of professorial rank.

4. The number of periods per week of teaching, for each instructor, should not exceed 16.

5. The curriculum should provide both for breadth of study and for concentration.

6. The curriculum should have justifiable relation to the resources of the institution.

7. There should be library and laboratory facilities adequate to the work which the institution announces, and these should be kept up to their full efficiency by means of adequate annual expenditures.

8. There should be a minimum productive endowment, beyond all indebtedness, of at least \$500,000. In the case of tax-supported institutions or those maintained by religious or other organizations, financial support or contributed services equivalent in value to the endowment specified are substitutes.

Note.—For the present the application of this principle will not be strictly made in the case of institutions which otherwise fulfill the requirements, but such institutions will be expected to increase the amount of their productive endowment to the sum indicated at the earliest possible date.

9. Salaries paid the members of the teaching staff should be adequate. The minimum will depend upon the local cost of living, as well as upon other factors.

10. In administering entrance requirements, exceptions should be few and made only for reasons of great weight.

11. The records of the graduates of the college in graduate and professional schools should be satisfactory.

In the Association of Colleges and Secondary Schools of the Southern States, the commission on institutions of higher education, which was appointed in accordance with resolutions passed in 1917, presented a set of standards for colleges which the association adopted December 5, 1919. These standards are as follows:

1. *Entrance requirements.*—The entrance requirements shall be at least 15 standard units, as defined in the by-laws of the association, with two conditions allowed; but beginning with 1921 the entrance requirements shall be the completion of a four-year course of at least 15 units in an officially accredited school, or its equivalent as shown by examinations.

2. *Requirements for graduation.*—The completion of college work amounting to at least 15 sixty-minute class periods per week through four sessions of 34 weeks each, excluding holidays, but including the examination periods.

3. *Number of degrees.*—The conferring of a multiplicity of degrees should be discouraged. Small institutions should confine themselves to one or two. When more than one baccalaureate degree is offered all should be equal in requirements for admission and for graduation.

4. *Number of college departments.*—The college should maintain at least eight separate departments in liberal arts and sciences with at least one professor devoting his whole time to each department.

5. *Training of the faculty.*—A properly qualified faculty should consist entirely of graduates of standard colleges and each head of a department should

hold at least a master's degree from a university having a fully organized graduate school. Graduate study and training in research equivalent to that required for the Ph. D. degree are urgently recommended, but the teacher's success is to be determined by the efficiency of his teaching as well as by his research work.

6. *Salaries.*—The average salary paid to members of the faculty is an important consideration in determining the standing of an institution. It is recommended that the salary of a full professor be not less than \$2,000.

7. *Number of classroom hours for teachers.*—Fifteen hours per week are recommended as the maximum for teachers, but in no case shall teachers be required to give instruction for more than 18 hours.

8. *Number of students in classes.*—The number of students in a recitation or laboratory section should be limited to 30. A smaller number is desirable.

9. *Support.*—In addition to income from tuition fees, room rent, boarding halls, etc., the college, if non-tax supported, should have a productive endowment of not less than \$300,000, and, if tax-supported, should receive an annual income of not less than \$50,000.

10. *Library.*—The library should contain, exclusive of periodicals and public documents, at least 7,000 volumes bearing specifically upon the subjects taught, and should have an adequate annual appropriation for permanent additions.

11. *Laboratories.*—The laboratory equipment should be adequate for all experiments called for by the courses offered in the sciences, and these facilities should be kept up by means of an adequate annual appropriation.

12. *Separation of college and preparatory school.*—The college may not maintain a preparatory school as part of its college organization. In case such a school is maintained under the college charter, it must be kept rigidly distinct and separate from the college in students, faculty, and buildings.

13. *Proportion of regular college students to the whole student body.*—At least 75 per cent of the students in a college should be pursuing courses leading to baccalaureate degrees in arts and science. The classification of students must be printed in the catalogue.

14. *General statement concerning material equipment.*—The location and construction of the buildings, the lighting, heating, and ventilation of the rooms, the nature of the laboratories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both students and teachers.

15. *General statement concerning curriculum and spirit of administration.*—The character of the curriculum, the efficiency of instruction, the scientific spirit, the standard for regular degrees, the conservatism in granting honorary degrees, and the tone of the institution shall also be factors in determining its standing.

16. *Standing in the educational world.*—The institution must be able to prepare its students to enter recognized graduate schools as candidates for advanced degrees, such preparation to be shown by the acceptable standing of its students in such graduate schools.

17. *Professional or technical departments.*—When an institution has, in addition to the college of liberal arts, professional or technical departments, the college of liberal arts shall not be accepted for the approved list of the association unless the professional or technical departments are of acceptable and approved grade.

18. *Blank to be filed triennially.*—No institution shall be approved or retained on the approved list unless a regular blank has been filed with the commission. The said blank shall be filed triennially unless the commission has waived its presentation.

NATIONAL CONFERENCE COMMITTEE ON STANDARDS OF COLLEGES AND
SECONDARY SCHOOLS.

At its annual meeting, March 24, 1919, the National Conference Committee on Standards of Colleges and Secondary Schools adopted the following definition of a college:

A "college" is an institution requiring for admission graduation from a standard secondary school or the equivalent, and offering a four-year curriculum leading to the first degree in arts or science.

In order properly to perform its educational functions, a college should, in the judgment of the committee, have at least:

1. A requirement for admission of 15 units of secondary work, not more than two units of credit on being allowed, all special students under 21 years of age being required, except in rare and unusual circumstances, to meet all the requirements for admission, preparatory courses, if any, being distinct in faculty, students, and discipline.

2. A program of studies having a reasonable relation to the resources of the institution.

3. A liberal curriculum, with advanced work in several fields, and a reasonable margin for free election, the curriculum to be of such a character as to qualify for admission to a graduate school of recognized standing.

4. A college year of 32 weeks of actual instruction.

5. Eight departments, each having at least one full-time teacher of professorial rank.

6. A staff, two-thirds of which are of professorial rank, having had at least two years of study in a graduate school of recognized standing, receiving salaries of \$2,000 a year or more, and teaching not more than 16 hours a week.

7. A productive endowment, beyond all indebtedness, of \$300,000.

8. An annual income for current expenses of \$40,000 a year, at least three-fifths of which is expended for instruction.

9. An expenditure of \$1,000 a year for laboratory equipment and apparatus, and of \$1,000 a year for books and periodicals.

10. An annual or biennial published report of assets, income, expenditure, faculty, curricula, and student body.

The difference between the standards set up by these associations and those established several years ago by the North Central Association vary considerably. The North Central Association requires 15 units of high school preparation for entrance to college; it urgently recommends training equivalent to that required for the Ph. D.; it makes no recommendation concerning the majority of teachers being of professorial rank; it recommends 15 hours of teaching as a maximum, with a prohibition of more than 18; it provides for shaping the last two years of college in the direction of special professional and university instruction; it establishes \$200,000 as a minimum of productive endowment; it makes no statement concerning adequate salaries for the teaching staff, numbers of degrees granted, or entrance requirements; and it establishes a minimum registration of 100 students. No mention is made of this last subject by either of the other associations.

This statement of differences existing between the standards of three associations reemphasizes an unfortunate condition in our

higher education. Since the Bureau of Education has been precluded from establishing standards for higher institutions, it is highly desirable that the various voluntary associations which have done this work with signal success during the last few years should establish common standards and in accordance with them proceed to the work of accrediting colleges and universities. By this means it would at last be possible to secure a dependable list of colleges and universities which fulfill uniform standards.

At the annual meeting in 1920 the national conference committee approved the following statement concerning the items which should be considered "current expenses" in estimating the cost of college instruction:

Expenses are usually classified according to the permanent or temporary character of them or which the money is paid; income and expenditure accounts dealing primarily with day-by-day operations, assets and liabilities accounts with endowment resources, capital, and investment.

Current expenses of a college are thus those providing for administration; care and operation of the physical plant; the cost of instruction; provision for student welfare; supplies that disappear in the using.

Administration may be divided into academic and business, including legal expenses, but both are current.

Plant depreciation is counted as current expense by many accountants.

Cost of instruction includes chapel, gymnasium, library, special lectures and the like, as well as teaching. Money paid out for fellowships, scholarships, and prizes, and for student help, is current expense, even though some or most of it be returned in the form of tuition. The annual excess of loans from loan funds over the amount returned might be counted similarly.

Student welfare includes health service, food, and lodging, but it is well to separate the cost of the last two from other accounts and include deficits only in general current expense.

Supplies used in laboratories and the like are current expenses even though paid for by special fees.

Current expenses do not include additions to endowment and to permanent plant, or temporary expenses in supervising permanent construction or in investing endowment.

UNIVERSITY SURVEYS AND THE SURVEY MOVEMENT.

During the last six years the Bureau of Education, by invitation, has conducted surveys of the publicly supported institutions of higher learning in nine States and in Hawaii. The purpose of these surveys has been to set forth the needs of the respective States in higher education and to make suggestions as to what reorganization of administration in the State's system of higher education appeared to be desirable in order to meet these needs. On the whole, the surveys have been welcomed as the expert opinion of impartial observers, and, as a result, unnecessary duplication of effort at two or more higher institutions supported by the State has been greatly reduced or eliminated. Furthermore, with the facts thus made more

available the State institutions have been able to go before their constituents with more convincing pleas for adequate financial support. The surveys have resulted in strengthening the faith of the people in their colleges and universities.

Two surveys have been made during the period of the biennium just closed. The survey in Alabama, from the 11th of March to the 31st of May, 1919, was the first to be conducted in the higher institutions in the Southern States. It was in charge of Dr. Samuel P. Capen, specialist in higher education, Bureau of Education, assisted by Dr. C. D. Jarvis, specialist in agricultural education, Bureau of Education; Dr. W. C. John, specialist in land-grant college statistics, Bureau of Education; and Mr. J. J. Pettijohn, director of the extension division, Bureau of Education. The survey disclosed among the higher institutions in that State considerable duplication of effort, together with low State appropriations for higher education. A summary of the chief recommendations made to the State commission is as follows:

A feature of the Alabama situation which deserves especial attention, not only in that State but in all Southern States, is the condition of the Negro land-grant colleges. In each of the Southern States, as a result of the Morrill Act, two institutions, one for whites and one for Negroes, were founded. The money appropriated by the Federal statutes has been divided between these two institutions. In the case of the white institutions, the State legislatures have appropriated more or less liberal supplementary funds, but the amount appropriated to the Negro institutions has in nearly every instance been so meager that they have been able to make little progress and are not filling the need of higher education among the colored people. The following table shows the source and amount of revenue secured by the Negro land-grant colleges for the year 1918-19:

Total income of Negro land-grant colleges, 1918-19.

	Federal fund.	State fund.	Private fund.	Total income.
Agricultural and Mechanical College for Negroes, Ala.	\$21,550.00	\$4,000.00	\$1,733.47	\$27,283.47
Bread-Normal College, Ark.	15,624.79	4,999.00	1,970.18	22,623.97
State College for Colored Students, Del.	10,000.00	26,500.00	11,794.88	58,294.88
Florida Agricultural and Mechanical College for Negroes.	2,000.00	11,000.00	59,134.78	72,134.78
Georgia State Industrial College for Negroes.	16,644.00	10,799.00	3,843.41	31,286.41
Lincoln Normal and Industrial Institute.	8,505.50	28,079.01	21,318.78	57,893.29
Southern University and Agricultural and Mechanical College, La.	22,380.25	16,500.00	34,121.03	73,001.28
Princess Anne Academy, Md.	10,000.00	7,500.00	12,700.00	30,200.00
Alcorn Agricultural and Mechanical College, Miss.	39,801.54	8,000.00	24,970.40	72,771.94
Lincoln Institute, Mo.	16,500.00	22,500.00	27,485.00	66,485.00
Negro Agricultural and Technical College, N. C.	1,000.00	41,497.00	26,114.00	68,611.00
State Agricultural and Normal University, Okla.	25,000.00	68,200.62	9,383.00	102,583.62
Tennessee Agricultural and Industrial State Normal School.	12,000.00	28,966.46	31,120.95	72,087.41
Prairie View State Normal and Industrial College, Tex.	12,500.00	87,780.00	122,668.02	222,948.02
Hampton Normal and Agricultural Institute, Va.	26,976.02	1,000.00	514,712.13	542,788.15
West Virginia College Institute.	10,000.00	51,894.00	27,444.91	89,338.91

HAWAII SURVEY.

The survey of the school system of Hawaii was carried out by representatives of the Bureau of Education during the period from October 1, 1919, to February 1, 1920. President Parke R. Kolbe, of the University of Akron, was responsible for the investigation of higher education.

Unlike a number of States, the situation in higher education in Hawaii is not complicated by the presence of two or more higher institutions each supported by public funds. There has been only one higher institution, the College of Hawaii, which was founded in 1907, under the provisions of the Morrill Act, as a land-grant institution. In response to a well-defined public demand, the Territorial Legislature in 1920 created the University of Hawaii, including a college of arts and sciences. The occasion for the change was the fact that a college devoted to the usual curricula of a land-grant institution was unable to meet a sufficient number of the needs of students residing in the islands. Partly for this reason, out of the 393 students in Hawaii who, during the last 10 years, have attended institutions of higher learning, only 113, or 29 per cent, have gone to the College of Hawaii. The others have matriculated at various universities in the States, principally in the University of California, Leland Stanford, Harvard, Yale, and Cornell.

Another cause for this situation is the fact that many Americans have close attachments in the States, and they are anxious to give their sons and daughters the benefit of higher education on the mainland. These persons are also largely responsible for the establishment of several private academies from which as yet have come the great majority of students who go to college.

A feature of some interest in this survey was the unusually large per capita expense of the education given at the College of Hawaii. This per capita expense is much greater than that found at any of the higher institutions investigated by the Bureau of Education on the mainland. This situation may doubtless be attributed to the small number of students attending the College of Hawaii and to the increasing cost of higher education in recent years. Nevertheless, with a growing student body the per capita cost is being steadily reduced.

THREE YEARS OF ATTENDANCE AT 250 COLLEGES AND UNIVERSITIES, 1916-17 TO 1919-20.

In November, 1919, the Bureau of Education sent out a circular requesting the enrollment at colleges and universities for the years 1916-17 and 1919-20, respectively. Two hundred and fifty institu-

*This amount varies from \$108.64 per capita at the Alabama Girls' Technical Institute in 1916-17 to \$504.32 per capita at the South Dakota State School of Mines. The median amount per capita is about \$211.

tions, not quite half the total number in the United States, responded. However, the answers represent institutions of all types, large and small, State and private; and although the figures are not complete, they undoubtedly indicate the emergency that the country faces in higher education. The total attendance at these 250 institutions in 1916-17 (the year immediately preceding the war) was 119,533; in 1919-20, 186,864, which is an increase of 25 per cent. As is well known, by far the greatest proportion of this increase was in the freshman class last year. The freshman class in the public institutions exceeded the freshman class of three years ago by 61.82 per cent; in the private institutions by 33.5 per cent; the general average being 46.1 per cent, as against an average increase of but 6.7 per cent in the senior class during the three years. In 88 of the 250 institutions the senior class was reported as being smaller than it was three years ago. Only 34 of them, however, reported a smaller freshman class.

It is interesting to notice the distribution of the increased attendance among the small and large institutions, respectively. Institutions with an enrollment of less than 250 in 1910 increased 38 per cent; those from 250 to 499, 20.2 per cent; those from 500 to 999, 14.5 per cent; those from 1,000 to 1,999, 22.5 per cent; and those of 2,000 or over, 29.4 per cent. The smallest institutions are therefore making the most rapid strides in increased enrollments, while the largest come second. The institutions which previously enrolled from 500 to 1,000 students are growing at the slowest rate.

Since the increase in student attendance at colleges and universities has been tremendous both before and after the war, it may be assumed that the causes are not ephemeral; they are deep and abiding. To be sure, it often seems to professors that an increasing proportion of students are coming to college for no particular purpose except that it is regarded as the fashionable thing to do. On the other hand, there is every evidence that the number of young men and young women who realize that they need a thorough and extended education before they may expect to rise to coveted positions is growing tremendously. In a vague and indefinite way they appreciate the increasing complexity of our modern economic life, with its growing demand for persons with specialized training in every branch of activity. In practical affairs the demand is quite definite and the character of the work is concrete, both of which appeal to the imagination of young men and women entering institutions of higher learning. There seems every reason, therefore, why we may assume that the present tremendous increase in the number of students seeking the advantages of higher education will continue unabated for many years to come.

What shall be done to meet the emergency in higher education? There is only one thing that can be done, and that is to devote to the needs of colleges and universities funds, both public and private, the size of which were never dreamed of a few years ago.

SALARIES AT COLLEGES AND UNIVERSITIES.

One of the most unfortunate results of the war in the educational world has been the inadequate salaries with which teachers have been compelled to face the mounting cost of living. The problem has been present in the higher institutions as well as in the elementary and secondary schools. In the autumn of 1919 the Bureau of Education gathered complete figures concerning salaries from more than two-thirds of the higher institutions. The results of this inquiry are shown in the following table:

Salaries at colleges and universities.

PUBLIC INSTITUTIONS.

Title of position.	Number of persons.	Minimum salary.	Maximum salary.	Average salary.	Median salary.	Most frequent salary.
Professor.....	2,460	\$200	\$10,000	\$3,126	\$1,000	\$3,000
Associate professor.....	822	300	4,000	2,514	2,500	3,000
Assistant professor.....	1,705	500	4,000	2,033	2,000	1,800
Instructor.....	2,138	300	3,100	1,532	1,500	1,500
Assistant.....	835	75	2,500	801	750	1,200

PRIVATE INSTITUTIONS.

Professor.....	3,781	100	10,000	2,304	2,000	1,500
Associate professor.....	357	600	1,500	2,123	2,300	2,180
Assistant professor.....	1,261	75	5,000	1,770	1,800	2,000
Instructor.....	1,810	50	4,000	1,205	1,200	1,200
Assistant.....	574	10	2,000	472	400	500

It thus appears that in the privately supported institutions full professors were receiving on the average \$2,304 per annum, while assistant professors and instructors drew salaries of about \$1,800 and \$1,200, respectively. The average salary, to be sure, in publicly supported institutions is a little higher, but only from \$200 to \$300 for instructors and assistant professors, while full professors at State institutions average only \$3,126.

It is no wonder that comparatively few teachers are being attracted to the field of higher education, or that professors who expected to spend their lives in a teaching career have been induced in large numbers to leave the colleges and universities for more remunerative positions in the business and industrial world.

If we compare the average salaries received by college and university teachers with those received by men engaged in various

trades and manual-labor employments, the results are amazing. For instance, structural-iron workers and railroad-train employees receive more compensation than assistant professors in private institutions and almost as much as those in public institutions. It is more lucrative to be a carpenter or a painter than an instructor in a State institution, while railroad yard employees, machinists, and the lowly hod carriers can look with compassion on instructors in privately supported institutions. Surely it is time for the friends of higher education to demand that the men and women in whose care the best youth of the land are intrusted for four years shall receive a compensation more commensurate with the value of their labor.

At the close of the college year 1919-20 a strenuous effort was made at nearly all higher institutions to increase the salaries of professors and instructors materially. This proved possible to a degree by reason of the successful campaigns for permanent endowments conducted at a large number of privately supported colleges and universities. At some of the State institutions the authorities have been compelled to borrow money in the expectation that the respective State legislatures will later make up the deficit.

PRIVATE BENEFACTIONS TO COLLEGES AND UNIVERSITIES.

The increase in student attendance at colleges and universities, accompanied as it is by rising costs of instruction and maintenance, has placed the privately supported higher institutions in a critical situation. The income from the productive endowments is relatively no longer so valuable as it was formerly, and yet in a few brief years the task with which higher institutions are confronted has increased tremendously. The privately supported colleges have realized this situation and a very large portion of them have instituted campaigns for increased endowments. Information from 317 higher institutions, 15 public and 302 private, reveals the fact that during the biennium covered by this survey the total benefactions received by these institutions were \$138,235,770. Of this amount \$44,608,966 was for current expenses, \$23,951,445 for increase of plant, and \$69,675,359 for increase of endowment.

It should be noted that 84 per cent of the funds devoted to increasing the plant and endowment of higher institutions has been raised in the North Atlantic and North Central divisions of the United States. On the other hand, the figures for the three-year period from 1916 to 1919 show that the rate of growth in student attendance in each of the three remaining divisions is greater than it is in the two just mentioned. In other words, in those regions most needing additions to the endowments of their higher institutions the movement to meet the situation yet lags.

Among the notable increases in endowment during the biennium are the following: Harvard University, \$10,205,045; Massachusetts Institute of Technology, \$5,948,292; University of Chicago, \$4,711,620; Yale University, \$3,925,985; Syracuse University, \$3,000,000; Johns Hopkins University, \$2,746,603.

THE JUNIOR COLLEGE.

The first national conference of representatives from junior colleges assembled at the call of the Commissioner of Education at St. Louis for a two-day session, June 30 and July 1. Thirty representatives from junior colleges located in Texas, Missouri, Michigan, Virginia, Alabama, Arkansas, Minnesota, Iowa, Illinois, and Mississippi responded to the call. The program was subdivided into four divisions: The place and function of junior colleges in the American educational system; the growth and development of the privately supported junior colleges; the development and problems of publicly supported junior colleges; and the curriculum of junior colleges. At the conclusion of the conference a permanent association of junior colleges was effected. The association plans to hold annual meetings hereafter.

The occasion for the conference arose from a variety of reasons. In the first place, the rapid growth of the junior college and of the students attending them made it seem highly desirable that the persons responsible for their administration should confer at some length on the problems confronting them. Furthermore, the recent tremendous growth in the number of students attending all institutions of higher learning indicates the possibility that there will soon become necessary some reorganization of higher education in which junior colleges will be called upon to do an increasing proportion of the work of the freshman and sophomore years for the large universities. Finally, it is becoming increasingly apparent that all students who wish to continue their education after graduation from high school should not be practically required, as at present, to go to a four-year college or university. Many students are either unable or unwilling to attend four-year higher institutions. A large number of them are not well fitted mentally to make the most of a university education. They wish a thorough, but very practical and less extended, type of education. As a prominent dean of a large university said recently, we need a large number of "stopping-off places" in our education above the high school.

The relation between the State universities and a number of junior colleges located within the respective States has been very carefully worked out in Missouri and California. In these two States the junior colleges are largely feeders for the State university, the most of the students from the junior colleges continuing junior and senior

work in arts and sciences at the State university. In Texas two junior colleges have coordinated their work with the State agricultural college. The same thing has been done by one of the junior colleges located in California.

The junior colleges which so far have responded to the demand for a completion school are located chiefly in large cities. For instance, the junior colleges in Detroit, Kansas City, and Chicago are giving technical courses for those students who do not desire to continue their work at large universities. At one of the junior colleges in California a two-year course in agriculture is being given successfully.

The present manifestation of activity on the part of the junior colleges is evidence of the consciousness of the important mission which these institutions will play in the future development of higher education in this country. The overcrowding of the large universities, particularly the State institutions, has raised the question forcefully as to whether it would not be much more convenient and economical both for the State and individual students if the work of the freshman and sophomore years could be done in a number of junior colleges located in various sections of the State. This arrangement would leave the great universities free to develop the technical, professional, and graduate work to much better advantage than is now possible, when so much of the energy of university faculties is consumed in giving instruction, really secondary in character, to freshmen and sophomores.

If some such reorganization of higher education as this is undertaken, an increased number of junior colleges in connection with the public high schools will undoubtedly spring up. In many large cities there is already available all or nearly all the equipment necessary for doing good freshman and sophomore college work.

While the largest field for expansion seems to be with the public junior colleges, junior colleges on private foundation are still more numerous. Many of these were once four-year institutions, but, finding themselves financially unable to do superior work during the whole four-year curriculum, became junior colleges. They have been rewarded by the consciousness of honest work well done, by larger enrollments of students, and freedom from the former financial distress. For such private junior college there is still much room. In 1917-18, 612 higher institutions out of the 672 reported incomes to the Bureau of Education. Of this number 12 reported incomes per student of \$1 to \$49; 66, incomes per student of \$50 to \$99; 82, incomes per student from \$100 to \$149; and 74, incomes per student from \$150 to \$199. It seems perfectly apparent that many, perhaps all, of these 234 institutions would be wise to confine themselves

to the freshman and sophomore years, leaving the more expensive junior and senior work to the larger colleges and universities, which have larger incomes and better faculties. The present increase in the cost of higher education seems to give added weight to this conclusion.

A high quality of instruction is, therefore, a compelling motive in the movement for private junior colleges. If this can be assured, there is no question of the future usefulness of these institutions. The friends of higher education will be glad to welcome them into their circle. The same is true of the public junior colleges. There is a widespread feeling, however, that the administration and methods used in the public junior colleges should really be collegiate and not secondary in character, and that on this account they should be effectively divorced from the secondary schools. With the proper safeguards there is no reason why the work done in the public junior colleges should not be easily the equal of that done in the first two years of our four-year higher institutions.

COOPERATION BETWEEN INDUSTRY AND HIGHER INSTITUTIONS.

On March 26 and 27, 1920, a conference of representatives from various industries and from a number of higher institutions interested particularly in technical education met at Drexel Institute, Philadelphia, Pa., in connection with the annual meeting of the Technology Clubs Associated. The occasion for the conference was the growing appreciation of the need of greater cooperation between industry and higher educational institutions. Industry needs technically trained men. The higher institutions need to know what kind of trained men are desired and in what numbers. The conference was particularly timely in view of the extraordinary demands of industry at the present time, which demands are attributed to a variety of causes: the dropping out of industry of men killed or disabled in the war; the falling off of immigration; and the diminution of the supply of trained men sent out from the colleges during the last few years. At the same time the country is being called upon to supply not only its own increasing wants but those of foreign countries not yet recovered from the war.

Definite information concerning the shortage of trained men was gathered by Dr. Hollis Godfrey, president of Drexel Institute, in a large number of personal visits to important industrial firms during several months prior to the conference. At the conference an attempt was made to prepare as definitely as possible specifications in various fields of industry as to the qualifications of men needed. Discussion and subsequent investigation have further brought out the specific needs of various industries which are to be set forth in printed form for the benefit of the colleges.

In order to carry out this plan of cooperation there has been established a council of management education composed of representatives from industries, which is to act in cooperation with a committee of the American Council on Education as the representative of the higher institutions. The industries will maintain the council of management education which, it is hoped, will become "a clearing house for all industrial and educational matters in the country, to promote the mutual understanding of the mutual problems of industry and the college, and to keep perpetual inventory of the educational needs of industry and the ability of the colleges to meet these needs."

The American Council on Education will review the specifications of the council on management education from the point of view of the higher institutions and circulate them among the colleges and universities of the country.

A feature of especial significance in this plan is to develop a type of education in the higher institutions which will not only familiarize men with the technical side of industrial work but which will also prepare them to assume managerial positions in industry. Work of this nature has been sadly neglected at most technical colleges, and young men of great natural ability have been consistently thrust into particular lines of technical work with little opportunity to rise to positions of responsibility and managership, where their services are often greatly needed. Particularly is this true to-day when prices are rising and economic conditions rapidly changing, with much consequent readjustment of industry. For this reason it is planned to induce as many colleges as will do so to give courses in management education. The work is being developed under Dr. Godfrey's direction, at the Drexel Institute.

Related to this general idea of cooperation between industry and the colleges and universities is the work being undertaken by the Bureau of Education for the development in the schools and colleges of an adequate supply of trained men for the automobile industries, on the one hand, and for the building of highways, on the other.

During the past few years the automobile industry has expanded in a marvelous way, creating an enormous demand for technically trained men in many fields. At the same time the greatly increased volume of passenger cars and motor trucks has made more or less obsolete the older types of roads, which are unable to stand up under the strain of present-day traffic.

Four developments in the field of higher education are essential to the successful solution of the problems raised under these new conditions. Technically trained men are needed in great numbers by the automobile industries. In this field courses in colleges are

already fairly well organized to supply the demand. Courses in business and industrial management are urgently needed by men who look forward to positions of administrative responsibility in the automobile industries. This work is as yet only in its infancy in higher institutions and demands immediate attention. In the new state of freight transportation over highways, research into the relative and comparative costs of motor truck transportation with other types of transportation agencies is essential before the proper limits of motor truck transportation can be defined. This work is now being undertaken by the National Automobile Chamber of Commerce. Finally, under the new highway traffic conditions, it is necessary through research to develop types of roads which will withstand the climatic conditions obtaining in various sections of the country. This field of research is properly one in which the colleges and universities should cooperate with the National Bureau of Public Roads and other agencies for research in this field.

These conditions were brought forcibly to the light in a conference of representatives from higher institutions, the automobile industries, and National and State highway bureaus held on May 14 and 15, 1920, by the Bureau of Education. At this conference it was decided to appoint a permanent committee representing these three fields. Through the efforts of this conference and the permanent committee the needs and qualifications for trained men in these fields have been assembled and will be distributed in bulletin form by the Bureau of Education to the colleges and universities of the country.

EDUCATION IN THE AMERICAN EXPEDITIONARY FORCES AFTER THE ARMISTICE.

It was a number of months after the armistice was signed before it was possible to transport American troops back to the United States. During this time the thoughts of each man in the Army naturally turned to the trade, occupation, or profession which he expected or hoped to pursue after being discharged from the military service. In a large proportion of instances men intended to go back to positions left open and waiting for them in the United States. In other instances, however, the war had definitely severed men from the desire of following their previous occupations and they wished to take up new ones. In either case the necessity or desirability of more adequate preparation for the after-war period appealed to a large proportion of men in the Army. The time which necessarily intervened between the signing of the armistice and the return home offered them a brief opportunity for study and training, if the proper arrangements could be made.

This situation had to a considerable extent been anticipated. Early during the period of America's participation in the war Mr. Anson

Phelps Stokes submitted a memorandum to the War Department outlining a general plan of education for use during the period of demobilization. The plan contemplated the placing of American soldiers at British and French universities and the establishment of schools under the direction of the Army for elementary and vocational education.

That Mr. Stokes's plan was in general practicable had already been demonstrated by the experience of the Army overseas educational commission of the Y. M. C. A. and the committee on education and special training of the War Department. Therefore not long after the cessation of hostilities it was decided to send Brig. Gen. Robert I. Rees to France to take charge of the educational work among the American soldiers.

The Army educational commission which directed the educational work in France, under the general supervision of Brig. Gen. Rees, was composed of Prof. John Erskine, Supt. F. E. Spaulding, and President Kenyon L. Butterfield. These men surrounded themselves with a number of able teachers, a large portion of whom had served previously in the Army overseas educational commission of the Y. M. C. A.

In the post and divisional schools elementary and vocational work predominated. It is perhaps impossible to estimate the number of young men who learned for the first time how to read and write and the number who attended classes where training was given in a large variety of vocations, not to speak of the tremendous number of extension lectures delivered by the vocational specialists who traveled from one division to another.

Facilities for higher education were afforded properly qualified students in British and French universities and at the American Expeditionary Forces University, located at Beaune, in the Côte d'Or. Two thousand and twenty-seven Army students were accommodated at British universities, and about 8,000 at French universities.

Since, however, the resources of the British and French universities were necessarily limited, it at once became imperative, in order to meet the demand, to create a university, which was done with surprising speed. Col. I. L. Rees was made president of the university. Teachers were summoned from the Army, from various civilian employments, and especially from the overseas educational commission of the Y. M. C. A. Many members of the staff had previously been employed as professors and instructors in higher institutions at home, and were consequently very familiar with the work assigned to them. The register of the A. E. F. University gives the following numbers of persons who served on the staff: At Allerey--military, 98; educational corps, 6; total, 105; at Bellevue--military, 18;

civilians, 9; total, 27; at Beaune—military staff, 78; educational staff, 797; total 867; grand total, 999.

The following is a list of the colleges which were established at Beaune, and the number of students registered in each college: Agriculture, 676; arts, 282; business, 1,815; education, 77; engineering, 616; journalism, 138; law, 159; letters, 958; medical science, 144; music, 182; and science, 640; total, 5,685. In addition to these, 338 students were registered at the Art Training Center at Bellevue; 2,353 at the Farm School at Allerey; 705 at the division and post schools at Beaune; and 490 in the short course for teachers; grand total, 9,571. Not included in this number are 6,705 students who enrolled in the College of Correspondence.

No final and complete report of the educational work done overseas during the period of demobilization has been made. That the instruction at Beaune, Allerey, and Bellevue, and the various post and divisional schools was carried on under great difficulties and under circumstances not altogether favorable to extended study is easy to surmise, and is borne out from the testimony of those who were in charge of the work.

COLLEGE CREDIT FOR MILITARY SERVICE.

After the war the problem of what college credit, if any, should be granted to students who had been in military and naval service perplexed the authorities of higher institutions considerably. In some institutions, notably the technical institutes, it was usually decided not to give any academic credit, since the courses of study were usually definitely outlined, and it was the opinion of the authorities that military service could not be regarded as an acceptable substitute for it.

On the other hand, certain higher institutions permitted students to secure a full year of credit if they returned to college before the opening of the second term and if they completed satisfactorily the work of the second and third terms. Other colleges and universities gave a blanket number of semester credits, depending upon the length of time which students spent in the military service.

RESERVE OFFICERS' TRAINING CORPS.

On November 27, 1918, it was decided to reestablish in the schools and higher institutions of the country units of the Reserve Officers' Training Corps, which had been replaced early in the autumn of 1918 by the Students' Army Training Corps. This decision was based on the war-taught lesson that in great national emergencies a sufficient number of officers are not available and can not be trained quickly and thoroughly. It is therefore highly desirable that some

system be adopted whereby, with a minimum of difficulty, expense, and interference with civil life, a considerable number of reserve officers may be available for possible future national emergencies.

While many of these officers will be wanted to fill the usual places in the infantry and artillery, the war emphasized the great need for trained men in the various technical branches so essential to the success of a modern army. The colleges and universities contain a large portion of the capable young men in the country; they possess the necessary equipment for technical instruction; and the requisite military instruction can with comparative ease be added to the curricula. It seems, therefore, as if the higher institutions are the logical sources for the recruiting of reserve officers for the Army.

The authorization for the establishment of the R. O. T. C. units is contained in the National Defense Act of 1916 and the supplementary provisions of the Army Reorganization Act of June 4, 1920. Two types of R. O. T. C. units are provided for, junior and senior. The junior units are all infantry units, located in secondary schools, in which basic military drills and practice form the chief work. The senior units, located in the higher institutions, are composed of infantry, cavalry, field artillery, coast artillery, engineer corps, signal corps, motor transport corps, and ordnance department. Infantry, cavalry, and field artillery units must be composed of at least 100 physically fit students; all other units, 50 each.

At the close of the academic year 1919-20, R. O. T. C. units had been located in 112 colleges and universities. The following is a table of the units and the number enrolled in each of them:

Senior units	Enrollment
Infantry	119 32,300
Cavalry	10 048
Field artillery	20 4,348
Coast artillery	18 2,687
Engineer corps	19 1,048
Signal corps	11 704
Motor transport corps	8 461
Ordnance department	3 201
Total	43,087

Junior units of the R. O. T. C. have been established in 39 essentially military schools of secondary grade, where the students receive a somewhat larger amount of formal military training than is customary in the colleges and universities. Junior units have also been located in 49 public high schools and 19 private secondary schools. The total enrollment of students in the junior units is 44,777. With the removal in 1920 of the limitation on the number of officers eligible for duty with the R. O. T. C., it becomes practicable to increase materially the number of units located in secondary

school. During the year just closed a total of 388 officers were located with units of the R. O. T. C. at colleges and secondary schools.

As many of the small colleges do not possess a large amount of technical equipment, it has proved wise to locate infantry units in most of them. In the larger colleges and universities, however, the units have been diversified to suit the needs of the service and the local facilities. The War Department has undertaken to furnish teaching material to those departments giving scientific courses recognized as having military value. This material is in the nature of problems which in addition to their military value are of importance in civil life.

Naturally problems have arisen in the conduct of the R. O. T. C., and a number of conferences have been held between representatives of the War Department and college executives at which the difficulties have been discussed and solutions attempted. For instance, the amount of college credit given for the military courses is left wholly to the colleges. The War Department proposes to prepare a standard set of tests for use in the various units. It has been recognized that the success or failure of R. O. T. C. units depends very largely on the character of the commissioned officers detailed to instruct the students.

It is thought that the maximum number of students who will complete the advanced course (the last two years) of the senior division, and thus become eligible for commissions in the Officers' Reserve Corps, is about 5,000. Inasmuch as the R. O. T. C. has been in active operation but three years, only 982 students completed the advanced course in June, 1920. Of these, 483 were 21 years of age or older, and are eligible for commissions. The number of students who complete the prescribed work of the advanced course and apply for commissions in the Officers' Reserve Corps will, of course, constitute the real test of the R. O. T. C. in the colleges and universities. Only experience will demonstrate the extent to which the R. O. T. C. is meeting this national need.

EDUCATIONAL CONCESSIONS TO CHILDREN OF ARMY OFFICERS AND ENLISTED MEN.

In connection with its studies on the cost of living, Army pay, and the amelioration of the financial difficulties of persons in the military service, the morale branch of the War Plans Division of the General Staff has undertaken to make a special inquiry into the scholarships and special funds which may be available in colleges and universities for use in whole or in part by deserving children of Army officers and enlisted men. The motive of this inquiry arose partly on account of the uncertainty of residence of Army people

and the consequent lack of familiarity which they may have concerning the educational advantages of particular institutions of higher learning. On account of the peculiar conditions, including uncertain residence, to which Army people and their children are subject a number of colleges and universities expressed themselves as willing to offer exceptional concessions to them. These concessions include free scholarships, opportunities for earning expenses, reductions of fees to the same basis as for legal residents, and loans from student loan funds, which will enable such students to earn all or a large portion of their tuition and living expenses.

The morale branch also secured information from as many Army people as possible concerning the number of young persons desiring to avail themselves of these exceptional advantages and the character of the course of study desired. The information was then made available to those persons in a small bulletin, which included a résumé of the entrance conditions, tuition, fees, cost of living, and courses of study at these colleges and universities.

THE CARNEGIE PENSION AND INSURANCE SCHEMES.

On April 22, 1915, the trustees of the Carnegie Foundation divided the teachers of the associated institutions, admitted to the benefits of the retiring allowance system sustained by the foundation, into three groups:

A. Teachers in the service of associated institutions on November 17, 1915, and who reach the age of 65 on or before June 30, 1923.

B. Teachers who were in the service of associated institutions after November 17, 1915, and who will not have reached the age of 65 on June 30, 1923.

C. Teachers entering the service of associated institutions after November 17, 1915, and participating in the contributory plan of annuities maintained by the Teachers' Insurance and Annuity Association of America.

Arrangements were made to pay to persons in groups A and B retiring allowances, varying in amount according to the average salary received during the five years previous to retirement.

Teachers who enter the service of the associated institutions after November 17, 1915 (the date on which the trustees of the Carnegie Foundation passed resolutions looking toward the adoption of a contributory pension plan), and teachers in institutions admitted in the future to the associated list and who are participants in the contributory plan of annuities maintained by the Teachers' Insurance and Annuity Association of America are eligible to the following privileges:

1. There is no fixed age of retirement, since the teacher holds a deferred annuity contract of which he may avail at such age as may be agreed upon by the teacher and his college.

2. The amount of the retiring allowance is based upon the joint contributions of the teacher and his college and their accumulations.

3. The trustees of the foundation have adopted resolutions which, without imposing a legal obligation upon the foundation, state its intention to provide from its income, if necessary, such amounts as may be required to secure to teachers in the associated colleges and universities an average return of 4½ per cent on the payments made by them to the Teachers' Insurance and Annuity Association of America for the purchase of deferred annuities—said sums to be paid at the time of retirement or in case of death.

4. The foundation will grant to such teachers disability allowances upon the following terms:

(a) Disability shall be interpreted to mean total permanent disability as certified by a medical examiner designated by the foundation.

(b) To be eligible to a disability allowance the teacher must have contributed for not less than five years toward an old age annuity and must have been during this period in active service.

(c) When retired on the ground of disability the teacher will assign his annuity policy to the foundation.

(d) The foundation will provide an annuity of two-thirds the amount the teacher would have obtained if he had continued to age 65 average contributions equal to the average of the five years immediately preceding his disability. The annuity payments will continue for life, or in case of death, until the accumulation to the credit of the teacher has been returned to his estate. Annuity allowances will be limited to a maximum of \$3,000, and are subject to discontinuance in case of the annuitant's recovery of health. In case of such recovery the unexpended portion of the contributions made by and for the teacher and their accumulations will remain to his credit.

(e) This disability benefit will not be available, without further action of the trustees of the foundation, to those entering the associated institutions after January 1, 1938. By that time it is believed that accurate information will be available, so that the disability benefit can be included in the regular annuity contract at a rate approximating its actual cost. This can not be done until such information is secured from the experience of teachers in the matter of disability.

5. These benefits are not applicable to teachers in professional departments whose principal work is outside the profession of teaching.

In these provisions it may be noted that the corporation guarantees a return of not less than 4½ per cent on payments made by the teachers in the associated institutions to the Teachers' Insurance Association. Furthermore, it grants disability allowances after five years of service upon the conditions stated in the rules. The corporation also has provided \$1,000,000, the income from which is available to take care of the overhead expense of the association. Inasmuch as the association has no agents, there are no agency fees to be charged to the overhead expenses.

Other than the connections just mentioned the Teachers' Insurance and Annuity Association is a corporation entirely distinct from the Carnegie Foundation. By the conditions of its charter certain distinctions and discriminations are made between institutions of college or university grade. The Teachers' Insurance and Annuity

Association, on the other hand, is incorporated under the statutes of New York to write insurance and annuity policies suited to the college and university teachers of the three English-speaking countries of North America. It will make no discrimination on account of denominational or State control, nor on account of educational standing.

By January 15, 1920, 29 institutions, 23 of which belonged to the foundation's list of 76 associated institutions, had accepted the plans proposed by the Teachers' Insurance and Annuity Association for the provisions of old-age annuities by the joint cooperation of the teacher and his college. In some of these institutions participation in the old-age annuity on the part of those entering after a certain date will be obligatory to the extent of an agreed minimum. In most institutions, however, participation in the contributory plan is optional.

The basis of participation in the contributory plan which the trustees of the Carnegie Foundation voted to accept from associated institutions, November 20, 1918, is as follows:

(a) Each full-time professor, associate professor, assistant professor, or officer of equivalent rank in the service of associated institutions, who does not enjoy the privileges given under the noncontributory plan now in operation, shall contribute annually in monthly installments 5 per cent of his salary toward an old-age annuity contract in the Teachers' Insurance and Annuity Association. In the case of institutions admitted hereafter to the associated list this requirement shall apply to all professors, associate professors, assistant professors, and officers of equivalent rank admitted to the service of the institution after acceptance of participation in the contributory plan.

(b) Each associated institution shall pay a corresponding 5 per cent in the case of any such contributing professor, associate professor, assistant professor, or officer of equivalent rank, provided that the institution shall be under no obligation to begin its payments before the teacher begins his, or to make annual contributions in excess of those made by him.

(c) Each institution shall make a like contribution in the case of any teacher below the rank of assistant professor who has voluntarily accepted a participation in the contributory plan and who has had not less than three years of service as a teacher in a college, university, or technical school.

THE PLACE AND FUNCTION OF FACULTIES IN UNIVERSITY GOVERNMENT AND ADMINISTRATION.

An important report on this subject was published in the bulletin for March, 1920, of the American Association of University Professors.

Part I of the report deals with problems and principles of university government and administration.

What part should the faculty play in the determination of a university's fundamental educational policies; with regard, for example, to the establishment of new educational enterprises, such as new colleges, schools, and depart-

ments of instruction? What part should the faculty have in the selection of deans and president, in the selection and promotion of its own members, and in the making of the annual budget? Should there be explicit provision for representation of the faculty on the board of trustees by way of members elected by the faculty? Or should the faculty be represented by way of faculty conference committees advisory to the board? What is the best form of departmental administration; by permanent headship, or by a committee of professors with a chairman chosen for a limited and short term? * * *

Says the chairman of the committee:

There is room for debate and difference of opinion in regard to specific features in the several details, but * * * there is no reasonable doubt as to the validity of the main principles involved. These are faculty power of initiative and right of consent in all matters of educational policy, faculty participation in the nomination of its own members and officers, provision for frequent interchange of views between trustees and faculty, openness of the faculty to suggestions of educational policy from the trustees; but the responsibility for the use of moneys and the final election of administrative officers and members of the teaching staff to remain with the trustees, since they are the custodians of the public interest in the care and administration of the property and income provided for the conduct of higher education and research.

Part II contains specific recommendations, and an appendix summarizes data in regard to current practice in the principal colleges and universities of the country. The specific recommendations deal with the relations of boards of trustees and faculties, the president and the faculty, deans and faculties, and faculty and budget making, the faculty (per se), and the departments. In this connection the report states:

There should be a recognized mode of procedure for the joint determination, by trustees and faculties, of what is included in the term "educational policies." It is difficult to frame in advance a completely inclusive definition of this term. Clearly, educational policies include the following: Standards for admission and for degrees; determination of the proper ratio between numbers of students, of courses and of instructors, respectively; numbers of teaching hours; the establishment of new chairs and departments of instruction, of new curricula and courses; the organization of new administrative units; the promotion of research; provision for publication; the abolition of any established form of educational or research activity; the distribution of income between material equipment and personnel. In the case of doubt or dispute as to whether a given matter is a question of educational policy, the matter should be decided by conference between trustees and faculty representatives and only after opportunity has been given for the faculty to consider and decide its views upon the matter. * * *

The fundamental principle that your committee subscribes to, with one exception, is that in all cases the faculty should have a recognized voice in the preparation of the annual budget.

The president should, however, have the power to make independent, budgetary recommendations to the trustees in order to meet special contingencies—such as to fill vacancies on the staff occurring during vacation, to raise a salary to meet an offer from another institution, or to secure a good man; but he should report his action in such cases at the earliest opportunity to the university budget committee. * * *

The faculty should be the legislative body for all matters concerning the educational policy of the university.

Among the standing committees of the general faculty should be a judicial committee of a small number of members, one or more to be elected annually by the faculty to serve for a definite term (or the whole committee to be elected by the faculty when need arises). In the event of the proposed dismissal of a member of the instructing staff, on indefinite tenure of appointment or before the expiration of a definite term of appointment, the member in question should have the right to full investigation by the judicial committee of the grounds alleged for the proposed action. Failure to sustain the charges before the committee should estop dismissal. The judicial committee should report its findings to the president and the board of trustees.

It is stated in conclusion that the committee's information indicates a growing tendency in the better class of institutions to accord to the faculty official participation in the selection and promotion of its own members, in the nomination of deans and presidents, and in the preparation of the budget, as well as in the determination of educational policies; that often trustees who are accustomed to autocratic methods in business and industry oppose a larger faculty participation in university and college government; that in every case where faculty self-government has been tried out for a term of years and under fair conditions, as notably, for example, at Oberlin and Reed Colleges, it has proved a signal success; that where, in the absence of formal and statutory provision therefor, the substance of democratic faculty government is in operation there are usually to be found contented and progressive faculties, but that without the legal form to protect it the substance is liable to vanish with a change of administration.

GENERAL INTELLIGENCE TESTS.

One of the subjects causing an immense amount of discussion among leaders in colleges and universities during the past two years is that of general intelligence tests. The subject was brought into prominence by the extensive use of these tests in the American Army during the World War. The Army tests were the work of a committee of seven well-known psychologists who were called into the service of the Surgeon General's office in the summer of 1917. The tests were first given an official trial in four of the cantonments in August, 1917. Afterwards they were revised and extended to the whole Army. At the signing of the armistice the total number of men examined in the Army was 1,726,966, of whom 41,000 were officers. As a result of the information obtained through these tests over 7,800 men were recommended for immediate discharge as unfit for military duty; 10,014 men for labor battalions or other service organizations; and 9,487 others for further observation and preliminary training. Nearly 30 per cent were found to be unable to "read and understand newspapers and write letters home."

During the war the Army intelligence tests were tried in a number of units of the Students' Army Training Corps scattered in various sections of the country. The results obtained, although by no means exhaustive, seemed to coincide so closely with conclusions regarding the ability of students reached in the usual ways that both military and academic authorities gradually conceded the great value of the intelligence tests. Assuming the approximate accuracy of the results gained from the tests, it also quickly became apparent that the general level of intelligence demonstrated by college students was so much superior to that displayed by the enlisted men in other sections of the Army as to justify the assumption made at the beginning of the Students' Army Training Corps that college students were especially well qualified for training as officers in the Army.

The introduction of general intelligence tests on such a wide scale in the Army set the whole college world to discussing the question as to whether these tests should not be substituted in whole or in part for college entrance examinations and certificates. At Columbia College, New York City, intelligence tests have been instituted as alternative forms of entrance examination. In the fall of 1919, 200 young men, many of whom would probably not have gone to college at all if they had been required to meet the usual entrance requirements, entered the freshman class by way of the intelligence examination. These young men did excellent work during the year. At a number of other higher institutions students who enter by certificate or by the usual entrance examinations are also being required to take the general intelligence tests.

During the two years just closed the intelligence tests have been used extensively in higher institutions throughout the country. In May, 1920, the Bureau of Education circulated a questionnaire asking for information concerning the progress of the tests in colleges and universities. Of the 228 institutions which replied, 124 had used some form of the tests. Not included in this number, however, are 47 additional colleges and universities which are known to have given the examinations. It is probably safe to estimate therefore that about 200 colleges and universities have used them for one purpose or another.

Prof. L. L. Thurstone, of Carnegie Institute of Technology, is chairman of a committee on intelligence tests for the Society for the Promotion of Engineering Education. Under his direction 48 colleges are participating in a series of five special tests and a general intelligence examination given at the time students enter college. Prof. Thurstone describes the work which the committee has undertaken as follows:

We collect considerable information about each student at the time of admission. This information includes such items as age, high-school scholarship

high-school principal's estimate, college-entrance examinations, the special tests prepared for this investigation, and an intelligence examination. All of this information is tabulated and filed for safe-keeping. When the students progress in their engineering course they will separate in ability. Some will drop out entirely, others will remain as mediocre students, and others will excel. When we have their freshman scholarship available we compare these marks with each type of information that was available at the time of admission. In this way we are able to state the relative predictive value of each type of test with special reference to freshman scholarship.

In order to remove the personal equation as much as possible in the interpretation of our results, we calculate the correlation coefficient for freshman scholarship and each test. If this coefficient is high, the test has predictive value; if it is low, the test is not useful for predicting freshman scholarship. Of course we must realize that freshman scholarship is by no means a final criterion of engineering ability. But we feel justified in using it until other more complete criteria become available.

We have sent out 10,275 sets of test papers and we have reports for 7,000 students on these tests. These records represent 39 colleges that have reported to date.

We wish to emphasize the fact that in order to complete this experiment it is necessary to check up the test scores with reliable measures of engineering success. We now have measures of freshman scholarship. That is a good criterion as far as it goes. But we must continue to check up the tests with the same 7,000 students on their scholarship when they become sophomores, juniors, and seniors. We must also check up the test scores with their engineering success measured in various ways. Then we shall be able to say what kind of test should be given in advising a boy about taking up engineering as a life work.

The purposes for which the tests may be used are, therefore, by no means confined to admitting to or rejecting students from college. Indeed, it is becoming clear that other uses, including the directing of a student's college education, the classification of students into sections, the elimination of failing students, and the assisting of students in the choice of a vocation, are of equal if not greater importance. As yet, however, very little has been done in colleges and universities to make use of the information which has been secured from the examinations. In nearly every institution there is a great need for an organization such as will attack the problem systematically and scientifically, in order that the time of every student may be spent more wisely than is now possible in colleges and universities.

Prof. Edward L. Thorndike, of Teachers' College, Columbia University, who is known as one of the foremost champions of the intelligence tests, reaches the following conclusions concerning the value which may result from the extensive use of intelligence tests in higher institutions:

The facts lead me to think that hour for hour or dollar for dollar spent, the psychological test for intellect is preferable to the conventional tests for scholarship.

The psychological test gives a somewhat broader and more thorough sampling of the candidate's powers. The difference may be illustrated by the case

of a boy who, after graduation from high school, works in an office or shop for a year or so and then goes to college. He is probably better fitted for college, but is less fit to pass the conventional entrance examinations. The conventional test gives, in particular, a weight to knowledge of foreign languages and of mathematics out of proportion to their significance for success in college and professional work.

The psychological test measures the ability and promise of the candidate more and the amount and quality of his schooling less than the conventional tests for scholarship. Educational advantages doubtless count in the former, and native ability counts in the latter; but, speaking roughly, the one tests primarily the candidate's own reactions to life; the other tests an admixture of these with the skill and assiduity of his teachers, the fiscal status of his parents, and the educational advantages of his community. The psychological test, for example, favors gifted boys with poor advantages. The conventional examination favors rich boys with gifted tutors.

The psychological test acts more positively to select for ability. It advertises the fact that the college will concede to intellect. The conventional examination acts too much negatively, forbidding or at least delaying entrance to those who lack this, that, and the other special ability. Even the short experience at Columbia College seems to prove beyond question that gifted youths whose college education is desirable in their own interest and for the common good will enter college by an intelligence examination who could not enter college by the content examination.

THE NATIONAL RESEARCH COUNCIL.

In April, 1916, at a time when the relations with Germany had grown very strained, the National Academy of Sciences offered its services to the President. The President accepted the offer and requested the academy to organize the scientific and technical resources of the Nation on the most effective basis as a precautionary measure in the event of future war. The academy at once established, under the provisions of its charter, the National Research Council, which undertook to carry out the objects in mind. These objects were set forth clearly in an Executive order May 11, 1918, which at the same time served as a request for making permanent the work which the council had already so well begun:

In general, to stimulate research in the mathematical, physical, and biological sciences, and in the application of these sciences to engineering, agriculture, medicine, and other useful arts, with the object of increasing knowledge, of strengthening the national defense, and of contributing in other ways to the public welfare.

To survey the larger possibilities of science, to formulate comprehensive projects of research, and to develop effective means of utilizing the scientific and technical resources of the country for dealing with these projects.

To promote cooperation in research, at home and abroad, in order to secure concentration of effort, minimize duplication, and stimulate progress, but in all cooperative undertakings to give encouragement to individual initiative as fundamentally important to the advancement of science.

To serve as a means of bringing American and foreign investigators into active cooperation with the scientific and technical services of the War and Navy Departments and with those of the civil branches of the Government.

To direct the attention of scientific and technical investigators to the present importance of military and industrial problems in connection with the war and to aid in the solution of these problems by organizing researches.

To gather and collate scientific and technical information at home and abroad, in cooperation with governmental and other agencies, and to render such information available to duly accredited persons.

The membership of the council consists of representatives from the Government, national and technical societies, and others who can assist materially in promoting the objects of the council.

The council conducts its work through two kinds of divisions—general relations and divisions of science and technology. Under the first is included the Government division and the divisions of foreign relations, States relations, educational relations, research extension, and research information service. Under the second heading are grouped the divisions of physical science, engineering, chemistry, and chemical technology, geology and geography, medical sciences, biology and agriculture, and anthropology and psychology.

During the war the council was necessarily absorbed in the solution of technical war problems. Says Dr. Vernon Kellogg, chairman of the division of educational relations:

Under the general directions of the council, great centers of research throughout the country were kept occupied with Government work. In more than a score of leading universities the scientific laboratories gave feverish attention to problems of military optics, of ordnance, munitions, topography, and food conservation. The council also directed investigations relating to gun defense, dyes, high explosives, smoke screens, wireless telegraphy and telephony, fuel substitutes, detection of submarines, testing of materials, and pathological and medical problems. Associated with the council was also the group of psychologists whose work revolutionized the methods of organizing Army and Navy personnel.

With the close of the war the council rapidly completed the war work in which it was engaged, and on June 30, 1918, severed its direct connection with the Government which it had maintained through the Council of National Defense. Even previous to this date, February 11, 1919, the Council of the National Academy of Sciences adopted a program of activities which the National Research Council has been pushing forward vigorously.

In order to go on with its program, however, it was first necessary to secure adequate financial support. The Carnegie Corporation of New York has authorized an appropriation of \$5,000,000 to the National Academy of Sciences for the use of the academy and the National Research Council. A part of this sum is to be devoted to the erection of a suitable building in Washington as a home for the academy and the council, and the remainder to a permanent endowment. A building has been secured for present headquarters in Washington.

On April 9, 1919, the Rockefeller Foundation placed at the disposal of the council \$500,000, which was to be used during the five years from May 1, 1919, to June 30, 1925, for the maintenance of a system of national research fellowships in physics and chemistry. The General Education Board granted the council \$25,000 for the preparation of mental measurements of school children, and \$10,000 for the carrying on of a survey of the research conditions in the colleges and universities of the country.

Speaking of the work of the council since its reorganization for peace-time work, Dr. Kellogg again states:

We need a great cooperative scientific investigation of food and nutrition; the National Research Council has put it under way. We need far more study on a very wide scale of the problems connected with the preparation and use of fertilizers, of ceramics, of alloy steels, of synthetic drugs. The council has begun this study. There are great scientific problems of direct bearing on our national well-being in connection with public health and sanitation, with forestry, with intensive agriculture. And there are many others which may not at the moment seem to have so tangible a relation to practical affairs, the solution of which may nevertheless serve as the indispensable fundamental basis for future practical use.

The work of the division of educational relations is of particular consequence to higher institutions. This division intends to encourage research along scientific and technical lines throughout the colleges and universities. In order to accomplish this object it was first necessary to secure comprehensive and complete data from colleges and universities concerning the research opportunities and activities at the various higher institutions. This information has been secured by returns from circular inquiries and by personal visits by members of the council's staff. With this information at hand the division is in a position to carry forward its campaign for increased opportunities for research and the training of research workers in the educational institutions.

Ex-President Jacob G. Schurman, of Cornell University, states the situation concerning the necessity of research in colleges and universities as follows, in his annual report for 1918-19:

The absolute necessity of supporting scientific research, and more particularly the necessity of supporting such research in our great universities, is shown by the history of virtually every great achievement in applied science. Consider, for example, the recent remarkable developments in the field of radiotelegraphy and telephony, which have played so important a part during the war, and which promise to be of still greater importance in peace. As a means of communication over great distances the work was begun by Marconi and continued by numerous other able engineers, who in most cases were not university men. But the discovery of electric waves and the study of their properties, which laid the scientific foundation upon which all applications of these waves must rest, were due to such men as Kelvin, Maxwell, and Hertz, professors in the Universities of Glasgow, Cambridge, and Bonn.

One of the most important aids to the surgeon in the treatment of wounds is furnished by the X rays. As a result of the accurate diagnosis made possible by their use, thousands of lives have been saved during the last five years which would otherwise have been lost. Great credit is due to the able surgeons and engineers who perfected the necessary apparatus and used it under the difficult and dangerous conditions of war. But the discovery of X rays is due to Roentgen, a university professor, and came as the culmination of a series of investigations by other university men like Crookes, Hittorf, and Lenard. Without their work, in a field which then seemed to have no possible application to practical life, no one would even have thought of the possibility of such an aid to surgery.

Every great achievement in applied science has essentially the same history. First comes discovery and progress in pure science, then its application to some useful purpose. There can be no applied science unless there is science to apply. Pure science without useful applications is incomplete; but without a basis of pure science applications are impossible.

Coordination of research work at colleges and universities and other research agencies becomes highly important when it is realized that in the present chaotic conditions in this field virtually the same research problems may be in process of solution at two or more places, while others equally important may be largely or wholly neglected. By bringing to notice those research problems which need to be attacked and by acting as an agency to coordinate the work on them the National Research Council will be fulfilling a very important rôle in higher education.

REPORT OF THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING ON TEACHER TRAINING.

A plea for the greater recognition of the teaching profession is made in the report on "The professional preparation of teachers for American public schools," issued in 1920 by the Carnegie Foundation for the Advancement of Teaching. The report originated in an investigation of teacher-training facilities in Missouri, as requested by the governor of that State in 1914, but the study of the Missouri situation was found to involve a comprehensive examination of the entire teacher-training problem in the United States, and the findings in the Missouri survey are regarded by the foundation as furnishing a valuable index to conditions existing in other parts of the country. According to the report the teaching profession should be placed upon a collegiate footing and organized under a single competent direction as a part of the State university, parallel with medical, legal, engineering, and other similar divisions of higher education. Says the report:

What is really needed is not arbitrary distinctions between normal schools and colleges but an enlightened administration of the State's entire teacher-training function exercised from a single directing body equipped to prepare teachers for all schools as thoroughly as possible.

Normal schools should drop that name, and as professional colleges of education should become an acknowledged part of the greater university whole, simply because they are a part of the State's system of higher education, which is all the term "university" now implies. We would thus secure a unified and centralized authority prepared to deal in a consistent and efficient manner with the State's largest problem in higher and professional education.

The report urgently recommends a closer organization of all higher education within the respective States; the employment of married women in the schools, on the ground that whatever objections may be urged against married teachers are outweighed by the obvious advantage of having in educational work the leading women of the community; and the elimination through equal standards of preparation and ability of the current distinction in prestige between elementary and secondary school-teachers.

REQUIREMENTS FOR THE DOCTOR'S DEGREE.

The Bulletin of the American Association of University Professors for January-February, 1919, contains the recommendations of the association's committee on requirements for the Ph. D. degree. The following recommendations are excerpts taken from the committee's report:

1. There should be a minimum time requirement for the doctor's degree, to be disregarded only in the most exceptional cases. Not less than three years should be thus required, of which at least one year should be in the institution granting the degree.
2. (a) Organized summer school work should be recognized as part of the preparation for the doctorate when conducted on the same plane as work in the regular session, and when of distinctly advanced character. (b) Work in other institutions of substantially equal rank should be accepted at par value. (c) Approval should be given to work done in Government bureaus or similar institutions when a careful scrutiny of the situation indicates that conditions are substantially equivalent to those of properly organized university work. The committee believes that such work would often have to be accepted at some discount, and to a limited extent. (d) The committee has expressed approval of the encouragement of migration, but no satisfactory methods for promoting it have thus far been discovered.
3. A sharp distinction should be made between admission to the graduate school and admission to candidacy for the doctor's degree. The first should depend upon the presentation of a standard bachelor's degree, or in the case of foreign students of some unquestionable equivalent. Admission to candidacy should involve in addition written assurance by the head of the department in which the candidate desires to do his major work that he deserves the opportunity to secure the degree.
4. The committee disapproves the acceptance of correspondence work as satisfying any part of the requirements for the doctor's degree.
5. French and German should both be required of candidates for the doctorate, efficiency to be tested at least one year before the conferring of the degree. Other languages will often be necessary also. * * *
6. The doctor's degree should be conferred only upon persons of unusual intellectual endowment with unequivocal capacities for research.

9. In general it may be said that the committee favors the publication of at least so much of the thesis as would adequately represent the methods and results. The committee is divided in its opinion regarding the requirement that the university should share the cost of publication with the candidate.

10. The examination: More than one department should always be represented on the examining committee. Both oral and written examinations should be given. Preliminary examinations should be held at a considerable period in advance of the final examination as a protection both for the candidate and the institution. The final examination should cover the capacities of the candidate in the widest possible way, with distinct emphasis, however, upon the subject of the thesis.

THE AMERICAN COUNCIL ON EDUCATION.

The American Council on Education was established early in 1918 at a time when the war situation was perplexing college and university executives. Its purpose was to provide a channel through which the Government and the higher institutions of the country could approach one another in an informal way for the most effective use in the Great War of the resources and personnel of the colleges and universities. The council was composed of representatives from the great national educational associations. It established headquarters in Washington where, in addition to serving as a mediating agency between the Government and higher institutions, it undertook a variety of activities, among others to stimulate attendance at higher institutions, until the inauguration of the Students' Army Training Corps removed the necessity for this campaign.

The council also early interested itself in the relations of American higher institutions with similar institutions among the allied countries. The purpose was through a widespread exchange of information concerning the activities, condition, and spirit of American and foreign higher institutions, respectively, to build up a greater and more intelligent appreciation of one another. One of the ways in which this ideal was carried out was through the visit in the autumn of 1918 of the British Educational Mission. This mission was composed of a distinguished body of university scholars, who visited a number of centers of higher education in the Eastern and Middle Western States, where they conferred with American college and university scholars. The council had charge of the entertainment of the mission.

The close of the war raised the question as to whether the council ought to be continued. A meeting was held in Cambridge in December, 1918, where it was decided that there was continued need for such a central agency in order to unite the counsel of the several national educational associations on numerous post-war problems. Accordingly, a plan of financing the organization through membership fees from the constituent organizations and from the col-

leges and universities was adopted. In May, 1919, Dr. Samuel P. Capen was chosen director of the council. He began his duties in the following December.

The character and objects of the council are set forth by the director as follows:

The American Council on Education is the central organization in which the great national associations are represented. Its general object is to promote and carry out cooperative action in matters of common interest to the associations and to the institutions composing them. It has three classes of members, constituent, associate, and institutional. The constituent members are 16 national educational associations. Each is represented by three delegates who vote as a unit at meetings of the council through a designated person. Associate members are educational or scientific organizations having interests related to the work of the council. Associate members may send one representative each to the meetings of the council without right to vote. Institutional members are colleges, universities, professional and technical schools, contributing not less than \$100 a year to the treasury of the council. Each may be represented by one delegate at meetings of the council without right to vote.

Sixteen national educational organizations have become constituent members of the council and 11 associate members. There are 120 institutional members. The council performs a large part of its work through committees. Considerable attention has been devoted to the educational features of the various bills now in Congress, particularly the Smith-Towner bill. Digests of arguments for and against this bill were circulated among the higher institutions and an attempt made to secure from them a referendum of opinion on this measure.

A committee of the council has also prepared tentative plans for the admission of holders of French degrees and certificates to American institutions. If this basis is accepted by the colleges and universities, it will be a step in standardizing the treatment of foreign students. The council also proposes to take up the same matter respecting degrees and certificates from other foreign countries.

Early in 1920 the Association of American Colleges transferred to the council the administration of the scholarships granted by American colleges to French girls and the selection of the young women who attend French institutions on scholarships provided by the French Government. In 1919-20, 182 French girls were attending higher institutions in this country on scholarships and 20 American women went to French lycées on scholarships. The French Government has also recently offered 16 graduate scholarships and fellowships at the Universities of Bordeaux and Toulouse to American young men. The council will select the candidates who will be awarded these scholarships and fellowships.

THE INSTITUTE OF INTERNATIONAL EDUCATION.

The Institute of International Education was established February 1, 1919, by the Carnegie Endowment for International Peace. Its aims, as set forth in the first annual report of the director, are "to develop international good will by means of educational agencies and * * * to act as a clearing-house for information and advice for Americans concerning things educational in foreign countries and for foreigners concerning things educational in the United States."

An administrative board, composed of representatives from the colleges and universities from the international fields of education, such as law, medicine, finance, journalism, and commerce, is responsible for the policy of the institute. The institute has established close relations with the American Council on Education in this country and with representatives of the American University Union, the University Bureau of the British Empire, the Office National des Universités et Écoles Françaises, and other organizations abroad.

In carrying out the purpose for which it was founded the institute arranged for a number of foreign scholars to visit all parts of the United States. It has also assisted materially in the entertainment of other scholars and educators, such as the Chinese Educational Mission, which spent several months visiting schools and colleges of all types in the United States. In addition to this, the institute circulated an inquiry among the faculties of higher institutions in France and Great Britain requesting information as to what persons would be willing to accept temporary appointments at American colleges or universities. From the replies which were received a list of available persons was compiled and distributed to higher institutions in the United States.

On the other hand, an attempt is also being made to locate American professors abroad in temporary appointments by paying the traveling expenses of a selected number of professors who are on sabbatical leave from their institutions.

In making available information about educational conditions in various countries for the benefit of students the Institute of International Education has already published two very useful and valuable handbooks entitled, respectively, "Opportunities for Higher Education in France" and "Opportunities for Graduate Study in the British Isles." At the same time information has been obtained and distributed regarding the fields of study open to American graduate students at British universities and the number of such students who can be accommodated at each institution.

All these activities will undoubtedly do much to build up a spirit of cooperation among the educated men and women of the world.

The exchange of foreign and American professors and students on a fairly large scale is bound to produce a more catholic spirit and a more tolerant international attitude, which, as everyone knows, is the basis of international peace.

In this connection it should be noted that the Committee on Friendly Relations among Foreign Students, in December, 1919, issued a directory of foreign students in the United States, which contained the names of 6,636 students attending 466 of the higher institutions in this country.

INTERNATIONAL FELLOWSHIPS AND SCHOLARSHIPS.

The Institute of International Education has also lent its encouragement to the establishment of fellowships and scholarships for the exchange of students between the United States and foreign countries. In addition to the provisions made for the exchange of French and American students already mentioned, there are a number of other similar arrangements. For instance, the American-Scandinavian Foundation has established 40 scholarships, mostly for graduate work, worth \$1,000 each, through which 20 American students are sent to Scandinavian countries and 20 Scandinavian students are received in American higher institutions. The San Francisco Chamber of Commerce has agreed to provide five scholarships for Chilean students in the United States. The Society for American Fellowships in French Universities has established 25 fellowships worth \$1,000 each, to be awarded to graduates of American colleges for advanced study and research in French universities. They are granted for one year, but may be renewed for a second year. The Committee for Relief in Belgium Educational Foundation will send 33 Belgian students to American universities on scholarships during the academic year 1920-21.

During the year 1919 the Rockefeller Foundation provided fellowships and scholarships for 85 persons, including 57 from China, 5 from Brazil, 4 from Czechoslovakia, and 1 from Salvador, at American colleges and universities for the study of medicine and public health. The foundation has not adopted an inflexible system of granting fellowships, but has been guided solely by the possibilities for noteworthy service which might be rendered by the holders of the fellowships.

Under the supervision of the International Serbian Educational Committee there are over 50 young Serbian students, divided about equally between young men and young women, studying at American colleges and universities.

THE RHODES SCHOLARSHIPS.

On account of the suspension of elections to the Rhodes Scholarships during the war, double the usual number of scholars will be elected in September, 1920. Thereafter the regular number, 32, will be chosen annually.

A new method of selecting the holders of the scholarships has been adopted. As was the case previous to the war, each State has a committee of selection which chooses the successful candidates subject to the confirmation of the trustees of the Rhodes scholarships. The change in the method of selecting the scholars is as follows:

Candidates must in the first instance be selected by their own college or university. The method of doing this is left to each institution. Institutions with a total enrollment of less than 1,000 students may be represented in the competition for any one State by not more than two candidates; those with from 1,000 to 2,000 students by not more than three candidates; those with more than 2,000 students by not more than four candidates. In States where elections are to be made this year both for 1920 and for 1921, institutions may be represented by twice the number of candidates that would be allowed were only one appointment to be made. Institutions should select their representatives on the basis of the qualities which will be considered by the State committee in making the final selection. These are: (1) Qualities of manhood, force of character, and leadership. (2) Literary and scholastic ability and attainments. (3) Physical vigor, as shown by interest in outdoor sports or in other ways.

The qualifying examination formerly required of all candidates for the Rhodes scholarships has been abandoned. The abandonment of this examination does not grant to Rhodes scholars exemption from examinations required by Oxford University for any of its degrees. Under recent regulations, however, holders of an "approved" degree from an "approved" university, with three years' residence at the university in question, can obtain "senior standing" and exemption from all examinations (including any examination in Greek) prior to the final honor schools. No list of approved universities is published. Applicants are required to submit their records with a view to the determination of their standing.

Before the war the annual stipend of £300 was ordinarily sufficient to pay all the expenses of the Rhodes scholars. The depreciation in the purchasing power of money, however, has made it necessary for the recipients of these scholarships to be able to supplement the stipend to the extent of £50 per annum. It is hoped that this change in the financial value of the scholarships will not discourage enterprising and capable young men from offering themselves as candidates. The resumption of the practice of awarding the scholarships in this country will no doubt continue to be an important factor in fostering the spirit of international friendship between the United States and Great Britain. This spirit so ardently desired by the founder of the scholarships was manifested in a splendid way during the Great War.

INTERNATIONAL EDUCATIONAL CONFERENCES.

One of the direct results of this international interest in higher education was the conference of American and British professors of English held early in July, 1920, in London. At this conference 17 delegates from the leading American universities joined with nearly a hundred representatives from British universities in a very profitable discussion of their mutual problems.

Another important conference was that of the International Federation of University Women, also held in July in London. This federation was founded for the purpose of promoting close contact among college women of various countries by establishing traveling fellowships; by making provisions for the exchange of professors, lecturers, and students; and by establishing clubhouses and other centers of international hospitality.

At the London conference representatives were present from a large number of countries, including the United States, Great Britain, Spain, Italy, Holland, the Scandinavian countries, France, Belgium, and Czechoslovakia. Considerable attention was devoted to the educational opportunities open to women in the several countries. A constitution was adopted and plans made for establishing a central office in London to act as a coordinating agency for the committees on international relations located in each of the countries which are members of the federation. It is planned to hold the next international conference in the summer of 1922.

THE INTERNATIONAL UNION OF ACADEMIES AND THE AMERICAN COUNCIL OF LEARNED SOCIETIES.

In March, 1919, the French Academy of Inscriptions and Belles Lettres, taking into account the movement in the field of pure and applied science, which ultimately resulted in the International Research Council, invited the leading academies and learned societies of the allied nations to send representatives to an international conference to be held at Paris during the following May. The object of the conference was:

(1) To establish, maintain, and strengthen among the scholars of the allied and associated states corporative and individual relations which shall be sustained, cordial, and efficacious, and which shall, by means of regular correspondence and exchange of communications and by the periodical holding of scientific congresses, make for the advancement of knowledge in the various fields of learning.

(2) To inaugurate, encourage, or direct those works of research and publication which shall be deemed most useful to the advancement of science and most to require and deserve collective effort.

Delegates from several countries, including the United States, attended the conference. A plan for the establishment of an International Union of Academies was drawn up and later adopted at a second conference, at which there were representatives from 11 countries. The new organization is called Union Académique Internationale, and it proposes to bring about "cooperation in the advancement of studies by means of collective researches and publications in the fields of the philological, archaeological, historical, moral, political, and social sciences."

The governing body of the Union Académique Internationale is the "Committee of the Union," which is composed of two delegates from each of the participating countries. The headquarters of the union are located at Brussels, where occur the meetings of the delegates which are held at least once a year. At a meeting in May, 1920, officers were elected. At that time the following countries had been admitted to membership: Belgium, Denmark, France, Great Britain, Greece, Italy, Japan, The Netherlands, Norway, Portugal, Rumania, Russia, Serbia, Spain, and the United States.

The organization of the International Union of Academies immediately raised the question as to how American scholarship was to be represented in the new body. In the United States there is no academy similar to the British Academy and others maintained in European countries. Obviously it did not appear possible or perhaps desirable to undertake at once the creation of such an academy. Instead it was decided at a meeting of representatives from 10 of the learned societies, held in Boston, September, 1919, to recommend the creation of the "American Council of Learned Societies." The representatives thereupon drew up a constitution, which has subsequently been ratified. The constitution provides that the council shall be composed of two delegates from each of "the national learned societies of the United States which are devoted by scientific methods to the advancement of the humanistic studies." Eleven such learned societies have so far accepted membership in the council.

The Council on Learned Societies will name and instruct the delegates to the meetings of the International Union of Academies. It will also, if its resources permit, undertake the compilation and publication of exhaustive collections and studies in the field of the humanities.

THE AMERICAN UNIVERSITY UNION IN EUROPE.

On June 18, 1917, alumni from 10 of the principal American higher institutions met in Paris and formed the American University Alumni Association of France. The objects of this association were

"to cooperate in all proper ways with university authorities in the United States for the general well-being of American university and college men who come to France." A short time before this meeting the Yale Bureau in Paris was authorized, its object being "to supply a headquarters in France for Yale graduates, students and prospective students, and their friends."

These two movements were typical of a widespread feeling among college men that more suitable accommodations should be made for them while they were abroad in military or other service. Many conferences were held in the United States with officials of war service organizations, and finally in 1917, at a meeting of representatives from 15 leading universities at the University Club in New York City, plans for the organization of the American University Union in Europe were adopted. Five men composing a small executive committee went to Europe for the purpose of establishing branches of the union at several prominent European centers. The efforts of the American University Alumni Association in France and of the several individual college bureaus were immediately merged with those of the union. The representatives of the individual bureaus used the headquarters of the union and contributed powerfully to its success.

The union undoubtedly performed a great service for American college men in Europe during the period of the war. In his report for the year ending July 1, 1919, George Henry Nettleton, the director of the union, sums up the war work of the union as follows:

Organized primarily to meet the needs of American college men and their friends in service in the cause of the allies, the union through its various offices enrolled up to July 1, 1919, about 35,000 American college men, representing over 530 American institutions of learning. During the course of the war over 80 men and women shared in the regular work of its various staffs and bureaus. Many of them were American college professors given special leave for this overseas service. About 30 different American institutions were represented on the various staffs, advisory councils, and committees of the union in Paris, London, and Rome. The union was thus, both in the personnel of its overseas organization and in the constituency which it served, broadly representative of American colleges.

The service of the Union was essentially democratic. Its doors were open at all times to all American college men and their friends. It recognized no distinctions of rank, offering to officers and men alike the same general advantages, the same personal service, and giving to both opportunities, almost unique during the war, of meeting on common ground. The union in Paris developed special war facilities, such as those of purchasing, canteen, and banking departments for the common benefit. Its rooms and restaurant, its entertainments, and its annual holiday dinners at Thanksgiving, Christmas, and New Year's were open equally to men of all colleges and of all ranks. At the offices and social headquarters of the union in London and Rome the same spirit prevailed.

The officers of the union also assisted quite materially, after the signing of the armistice, in locating the 2,000 American army students who were given leaves of absence to study at British schools and universities.

While the American University Union was in its beginning largely a war service organization it was recognized at the outset that it could perform an important peace-time service for the hundreds of American students and professors who study from time to time in European centers. Accordingly the board of trustees of the union redefined the object of the organization as follows:

The general object of the union shall be to serve as a bond between the universities of the United States and those of European nations, especially by encouraging the attendance and advancing the welfare of American students (including both men and women) at the universities of France, Great Britain, and Italy, in such ways as the trustees may see fit.

The early plan of financial support also necessarily came in for considerable change. During the war the union had been maintained about equally by dues received from 130 colleges and universities and by voluntary subscriptions from interested persons or organizations. The amount collected in these two ways for the year ending August 31, 1919, was \$41,588.

Under the new plan of organization the trustees of the union will be appointed by the large higher institutions, by certain higher education associations, and by the trustees themselves. The directors of the American Council on Education and of the Institute of International Education, with whom the union works in close cooperation, are ex officio trustees. Dues from subscribing colleges and universities, ranging in amount from \$100 to \$500 per year according to the number of their graduates, continue to be one of the chief sources of support. However, the union is also endeavoring to raise an additional fund of \$300,000 for current expenses, permanent endowment, and the erection and endowment of a Maison des Etudiants in Paris.

The plan for building a Maison des Etudiants in Paris is the direct result of a very generous and valuable gift of land in the center of Paris made to the union by the municipal council of Paris. The site for the proposed building is located in the very center of the city and in easy walking distance of the important higher institutions. Until the "Maison" is erected the officials of the Paris branch of the union will continue to occupy temporary quarters in which they will serve American college men and women.

In May, 1919, the offices of the union in Rome were discontinued and the interests of the union turned over to the director of the American Academy in Rome. For the present, at least, it is planned

to maintain only the Continental division in Paris and the British division in London.

In London officers of the union have been particularly fortunate in obtaining quarters in the same building with the Universities Bureau of the British Empire, where also may be found the Office National des Universités et Écoles Françaises. Besides affording facilities for easy cooperation with these organizations the location of the union enables students to have easy access to the British Museum and other centers of educational interest in London.

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