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HIGHER EDUCATION
BIENNIAL SURVEY
1924-1926

By

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[Advance Sheets from the Biennial Survey of Education
in the United States, 1924-1926]



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HIGHER EDUCATION, 1924-1926

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INTRODUCTION

Activities in higher education during the biennium 1924-1926 do not seem to have been inspired merely by the desire to pacify criticism of details or to patch up weak spots in the educational fabric. The tendency was to "raise the previous question" concerning the functions of colleges and universities and to modify procedures to serve more perfectly the purposes accepted as basic. This survey of higher education during the two years is an attempt to present briefly some of the events of action and of discussion which have promoted or obstructed the tendencies to restate higher educational objectives and to reconstitute college and university organization and procedures.

Review of educational journals, presidents' reports, and pamphlet literature, of books, and of proceedings of the learned and administrative associations confirms impressions regarding the nature of current educational thought which had been previously derived from contact with the officers and faculties of a hundred or more universities and colleges scattered throughout the United States. Specific phases of educational activity and of conflicting opinion discussed in the succeeding pages are unified by their relation to certain general tendencies of higher education during recent years. These tendencies may be summarized in broad terms by four statements:

First. Discussion of the basic objectives of higher education has been conducted in general from the standpoint of emotional prejudice, rather than upon the basis of scientific collection and treatment of facts for the purpose of defining the obligations and the position of higher education in its relations to the present social and economic order.

Second. Modification of conventional educational procedure and creation of new procedures have, on the contrary, been characterized by increasing thoroughness of investigation in accordance with scientific methods.

Third. Redefinition of objectives and adaptation of organization and procedure have been motivated by interest in the individual student.

Fourth. Modification of the educational organization and of both content and methods of instruction has been characterized by intensification of the educational process.

The distinctions made by this fourfold analysis of tendencies, discovered by reading and personal contact, do not constitute successive topics in the discussion presented by this review, but serve to indicate the general course of the argument.

OBJECTIVES OF HIGHER EDUCATION

Many forces have combined to incite reexamination and restatement of the fundamental objectives of higher education. But five causes have in the main provoked discussion. Three of these—large attendance, high costs, and public pressure through political action—have operated as immediate and practical spurs to thought and action. Two causes have been abstract and theoretical in nature: First, the conviction that the cultural and the vocational are inherently in opposition, and, second, the conviction that education is a life process and should be so recognized by institutional organization and procedure. Each of these five causes actuating discussion will be considered in turn.

LARGE ATTENDANCE

Incidental to recent tremendous growth in attendance upon institutions of higher learning, characterized by one writer as "a college contagion," an element of doubt has been introduced into our faith in higher education as the panacea of all individual and social ills. This doubt is still largely confined to the intellectuals, and it has not as yet destroyed the confidence of the general public in the desirability and benefits of college education. The common man still puts deference and respect into the phrase, "He is a college graduate." President Coffman, of the University of Minnesota, pictures the situation:

For years the staffs of State institutions have encouraged the youth of the State to believe that attendance at the university was their great opportunity and the youth have accepted these statements at their face value. They have come in response to an urgent appeal, and the public will insist upon the obligation implied in this appeal being fulfilled.

Large attendance has brought cries of dismay, of alarm, and of doubt from administrative and faculty officers, who, in spite of im-

mediately practical difficulties, might have been expected to exult that at last our faith in higher education was to be justified by universal participation in its benefits. Those who were most insistent in urging higher education have displayed the least persistent and the least robust faith. Confronted with the realization of their aspirations, many educationists have occupied themselves with the details of the difficulties caused by large numbers, while others have attempted to disavow responsibility by redefining the functions of higher education in restricted terms which can be reconciled with more or less arbitrary measures taken to reduce the pressure. Here and there, however, a voice is raised which implies protest against expedient measures and arguments or against weak abandonment of former ideals. Dr. William O. Thompson says:

We can not correct the evils due to excessive enrollment by protesting that our students are inferior. Some other method awaits our discovery.

President Kimley, of Illinois, repudiates hysteria and gives perspective to the situation:

It is simply a raising of the level of education to a new minimum standard for the great mass of the people and is parallel with the establishment of an American minimum standard in economic life.

There is in this simple statement unflurried strength of confidence in the past and in the future of American education. It reflects seasoned thought upon higher education in its social and economic setting.

Large attendance has had great constructive influence, however, in promoting clear statement of the objectives of the American university as distinguished from the American college. In the past the term "university" has been used in a very loose sense. In so far as usage in the United States has ascribed any special significance to the word it has meant merely a collection of colleges which included one or more professional schools. The conception has been one of size and complexity of organization rather than one of specific educational function. The unprecedented growth of college attendance at both the smaller and the larger institutions has tended to bring about definition of the objectives of some of the larger universities in terms of educational service on a specifically university level. In other words, a type of service distinct from that of the traditional American college is being created and consciously differentiated as "university work." This service is more closely related in tone and purpose to the graduate and professional schools than to undergraduate types of instruction. So far as time and age of students are concerned, it tends to break into the midst of the traditional four-year college course at approximately the middle point,

but with respect to student abilities and definiteness of purpose is more highly selective than are the upper divisions of ordinary four-year colleges.

The tendency to create a limited and definite purpose of university character, in the European sense, is evident in the statement made by the board of curators of the University of Missouri:

It is the purpose of the university to maintain itself as a school of higher training for professional work, rather than as a direct competitor of the junior colleges, the teachers' colleges, and the endowed colleges, for students of freshman and sophomore rank. It is, therefore, particularly pleasing to know that our increase in enrollment, which has carried the university to the highest point of attendance in its history, is almost exclusively in the graduate school and in the professional schools.

Harvard, Columbia, and Johns Hopkins in the East and Stanford University in the West seem to have most clearly defined and limited their university functions in such a way as to minimize emphasis upon their work in the lower divisions. The University of Michigan and Chicago University seem to be developing in the same direction. Readjustments of organization, of curriculum content, and of methods, which indicate practical steps taken to put this revised conception of the university into actual operation, will be reviewed at a later point in this survey.

THE JUNIOR COLLEGE

Large college attendance has tended to distort the educational significance of the junior college and to divert its development from the aims that psychological and social considerations intended that it should serve. The idea of the junior college was seized by the four-year institutions as a means of relief from the numbers and troubles which crowd their freshman and sophomore years. Educational functions peculiar to the theory of the junior college have to a large extent been lost to sight in the desire to emphasize this type of institution as a source of relief for overcrowded colleges and universities. The argument that the junior college is intended to enrich and raise the level of local educational opportunity might well have been advanced as cover for the self-interest of the four-year institutions, but this has not usually been the case. One president of a college in a Western State where junior colleges have developed extensively was led by the nature of their advocacy to question the honesty of educational arguments offered in their favor. In picturesque language he asserted that "The junior college was conceived in dishonor and is being nursed upon deception."

The results of junior college growth have on the whole, however, not met the expectations of those who looked to it to reduce attend-

ance at the four-year institutions. The junior college movement has not kept pace with the demand for education beyond the high school. Emphasis has been placed upon paralleling the first two years of the four-year college course in the nature of the work offered, in methods, and in the training of the faculty. Standards for the junior college have been set up in terms applicable to the four-year colleges. The result probably has been to increase rather than to diminish the demand for four years of college education. Realization of this fact is now beginning to make possible reassertion of the original purposes of the junior college and to permit more thoughtful direction of their operation to the attainment of these objectives.

More complete recognition of its peculiar objectives may counteract a tendency in junior college development that is cause for concern both to four-year institutions and to those who regard the junior college as having a specific place and function in our system of education. Since emphasis has been upon junior college work as the first two years of the traditional college course, only the first half of what is still looked upon as a unit period in higher education, the natural ambition of these institutions has been to convert themselves into full-grown four-year colleges. Clear definition of specific objectives for the junior college may be expected to discourage further development in this direction.

It still remains to be seen whether these objectives will tend to produce separate junior college units or whether the work of the high school will be extended to cover the entire field of what is now, upon technical and psychological grounds, regarded as secondary education. The probability is that, along with the development of junior college education to provide "completion" training not now furnished systematically either in the high school or college, will be developed a type of training that will contemplate passage from junior college to the advanced technical schools or to higher institutions with objectives of the peculiarly university type described above.

If this should be the case, four-year colleges may be tempted to jump to the conclusion that they will be squeezed out between the junior college and the university. In view of the diversity of American educational tastes and ambitions and of the ever-growing demand for education, this would be an inference founded upon insufficient consideration. The most important effect of such coordination of junior college and university would be to contribute to the influences which already make it highly desirable that the four-year colleges redefine their objectives and position.

THE SMALLER COLLEGES

During the past two years the reaction of the smaller and denominational colleges to the pressure of extraordinary enrollments indicates that in many instances dismay is giving place to intelligent measures which look to relief and improved service through revision of their educational and social positions. Two or three years ago it was quite usual to hear large and small college officers alike assert that the small and the denominational college can not compete with the large or the State-supported institution. This opinion was not based upon anything in the nature of small-college educational service which made it impossible for them to secure students. The most confident prediction of the decline of the small college was made at a time when the problem of caring for largely increased enrollment was most pressing. Inability to compete was assumed largely upon the ground that the small private institution could not meet the cost of educating the large numbers seeking admission. Recent indications seem to show that here and there the small college tends to abandon its interpretation of its mission in the old terms of competition. The competitive situation exists only so long as the small institution fails to cut its pattern to its cloth and to place itself upon a level of educational service for a chosen clientele, which can not be provided easily by large institutions. Small colleges are beginning to recognize the essentially local character of their constituency and to take advantage of the opportunities offered by multitudinous demands for higher education by developing distinctive educational character and service.

Inadequate adjustment to modern educational conditions on the part of the small college has been due not to lack of ideals but to failure to examine institutional objectives in the light of social and economic facts determined and interpreted in the scientific rather than the emotional spirit. It is encouraging to discover in how many instances small colleges (Amherst, Wabash, Wells, Carleton, Baylor University, California Institute of Technology, Cornell College, and many others) have substituted, for generalities about high institutional ideals and magnificent and honorable history, carefully defined programs of material and educational development directed to distinctive types of service. Objectives scientifically defined and embodied in practical programs will, under present conditions of wealth and generosity, bring support to the small as well as to the large institutions.

Reconsideration of the aims of the small college has usually been expressed by turning aside from attempts to rival large institutions in variety and scope of offerings and by confining service to student bodies selected from limited groups unified by more equal ability, common aims, or other social relationships. The action taken to

effect these purposes does not by itself serve to distinguish the small colleges that are consciously and intelligently revising their objectives from those that are merely imitative in their adoption of similar measures. Anyone who examines faculty discussions, presidents' reports, and trustees' proceedings in many small and in some large institutions will be impressed by the number of instances in which well-advertised devices of procedure and of organization are advocated without reference to their relationship to the general plans and objectives of the specific institution. Sheer desire to secure credit for participation in current educational thought and desperate groping for a way out of immediate difficulties, therefore, can be distinguished from purposeful action only when adoption of the vogue is judged in relationship to plans for plant, financing, faculty standards, student life, and territorial field.

The tendency to establish objectives more precisely limited in scope and character is also evident in the case of certain church boards and agencies which support and control groups of institutions. In several instances church boards have made, or are considering, surveys of their colleges for the purpose of defining their relationships to each other and to other educational institutions. From these studies are coming more exact statements of the functions of single church institutions and of groups of denominational colleges. Limitation of the programs of individual colleges is being made to contribute to unified plans for educational service to be rendered by the church group to which they belong. Confidence in discursive effort and in multiplication of the number of schools under denominational control is thus giving way to group movement in harmony with the general tendency to tighten the lines and to restrict service to fields that are considered most productive.

EXPANSION OF FACILITIES

In only one instance does it seem that a church group proposes to meet the challenge of extraordinary demands by immediate and general expansion of facilities to accommodate all who are prepared to seek admission upon the basis of previously accepted standards. Everywhere throughout the United States Catholic Church colleges for both men and women are being enlarged and multiplied. Faculties are being strengthened by graduate and professional training. Participation is active and influential wherever church, regional, or national groups meet for serious consideration of the problems of higher education. Close association with the educational activities and discussions of other agencies, both public and private, characterizes the apparent attempt of Catholic higher education to meet the

problem of increasing numbers by providing increased opportunities. In the face of the ever-growing army seeking higher education, Catholic educational agencies give no hint of adopting the policy of strategic withdrawal for the purpose of consolidating their position. They seem determined to meet the situation by expenditure of extraordinary energy and resources.

In spite of the confusion of action and of discussion during recent years, indications are numerous that large college attendance has tended to bring about constructive redefinition of the objectives of higher education and of higher educational institutions. The concern and distress caused by more rapid growth of student bodies than of material resources have stimulated educational thought and inspired attempts to steer institutional efforts into definite courses. Clearer conceptions of distinctively university functions are being recognized. The junior college movement now seems likely to be permitted to define its educational purposes. Small and denominational colleges are abandoning competitive conceptions and seeking to formulate objectives in terms of effective service, specific in character. Haphazard and vague educational aims on the part of all the agencies of higher education tend, under the pressure of student demand, to give place to more exact definitions of function which will permit coordination and economy in educational service.

COSTS OF HIGHER EDUCATION

The rising costs of higher education as a factor in redefinition of institutional purposes have been, of course, intimately related to the great increase in the number of students. But in addition to growing cost arising from larger attendance, expenses have been increased by high prices paid for the materials and services purchased by the colleges and universities. This is especially true in the case of personnel. High costs are due in large measure, however, to the great multiplication of educational offerings in practically all educational institutions. This increase in variety of educational work came with the extension of higher education beyond the boundaries previously defining the liberal arts college. Expansion has been by no means sudden, but the war gave an impetus to multiplication of offerings which make it seem so. Scientific and material progress embodied in a very complex type of civilization results in tremendous multiplication of demands for special training by technical, by business, by professional and civic life. The necessities, from potatoes to government, formerly secured through the exercise of muscle and the ability to read and figure, are now produced by means of intricate processes involving scientific, social, and psychological education that requires years for attainment. One has but to compare the

problems involved in breeding and working horses with those involved in creating, distributing, utilizing, and controlling the use of automobiles to get, in brief, a picture of what has taken place in all of our activities during the past 25 years.

The demand for training to meet this situation became so great that practically every college and university in the United States felt the pressure, or, from the obverse side, seized the opportunity to provide the kind of education needed. The cost of this wholesale development appeared appalling only when institutions and others became conscious that the process was only in its initial stages, that further demand would be made, and that if the results of their own researches continued to be embodied in the ordinary processes of life, no end of demand for advanced training was in sight. Costs, therefore, from this standpoint have had considerable influence upon the institutions in revising their estimate of objectives. Indications exist that better realization of the ever-widening circle of higher education tends to bring about a simplifying and restricting of their objectives by individual institutions. The tendency seems to be away from a practice in which every institution attempts to offer training in each of the many social and technical specialties. Obviously when every institution attempts to cover the entire field, comparatively few do the job well, and the total expense is greater than would be the case if each restricted its efforts to the thing which it can do best and for which there is the greatest demand in its own territory. Such specialization is taking place, especially in the technical and scientific schools, and is also evident in the preparation of teachers, of librarians, of economists and business men, of social workers, and of others who deal with the human relationships. After the adjustment is made it appears probable that greater total numbers may be cared for more effectively and at less expense than under a condition involving hit-and-miss duplication and rivalry of effort.

In this connection it is interesting to note that in several instances attempts have been made to determine, upon National or State bases, the number of trained men needed in certain fields. Some years ago the medical profession undertook to determine these facts for medicine, and more or less systematic attempts have been made to keep these estimates up to date. Much the same systematic inquiry is now being undertaken for dentistry, and it seems as though pharmacy would also examine into the nature of the demand for this type of training. It has been suggested that a national survey is needed to estimate the demand for teachers of various types. Such studies in other fields have been carried on for certain institutions and States, but because of easy migration and of the fluid character of occupation in the United States, only a national study continuously subject

to revision will adequately serve even local purposes. There seems also to be a growing tendency to determine the much simpler matter of what is the total product of the colleges and schools in certain fields. The statistics of graduation from professional courses collected by the Bureau of Education are being used increasingly for this purpose. Engineers are giving special attention to inquiries of this kind and developing the technique of interpretation and use of such figures. In the industrial and business fields and in many others there is still a lack of definite information both in regard to demands for trained men and women and in regard to the supply offered to the specific fields annually by the educational institutions.

INFLUENCE OF COST

As stated previously, these aspects of the influence of cost upon objectives are most significant, but they have not aroused the most discussion during the period under consideration. On the contrary, discussion has raged about the question of the proportion of the cost of education that should be borne by the student. Tuition and other fees have been raised everywhere in greater or less degree, and there is probably not a single higher educational institution that to-day maintains the same charges to students that were maintained five years ago. This process has gone on until in New York University 89 per cent of the total budget in 1924-25 was covered by fees. The significant thing is that this increase of cost to the student has not resulted in decreased demands for higher education. It seems that under present conditions of wealth and social pressure in the United States the costs are not the decisive factor in determining whether students shall or shall not attend college. A similar conclusion is suggested by such facts as those presented with reference to undergraduate scholarships offered by several State institutions. At Cornell there has been a decided decline in competition for these scholarships. In 1914 there were 137 competitors; in 1919, 108; in 1920, 93; in 1921, 77; in 1922, 75; in 1923, 80; and in 1924, 78. The same situation has existed in New Jersey. In other words, it seems that the cost burden so far placed upon the student has not operated to prevent his attendance and that in some instances he prefers to pay in money rather than to comply with academic and scholarship demands which would enable him to avoid costs. It is true that in certain institutions, especially the State-supported ones, increasing the charges imposed upon out-of-State students has enabled institutions to regulate somewhat the proportion of out-of-State students applying for admission. The University of Nevada and several of the Western State-supported colleges are good examples, but no instance is known in which these effects have been obtained when an institution has established a national reputation for leadership in a specific line of work.

Although fees have been increased generally, the student still pays a comparatively small proportion of the cost of his education in most institutions. This fact has led business men and others to assert with considerable emphasis that higher education should be placed upon a business basis. The idea was dramatically expressed by one gentleman who, when he heard that the tuition and charges paid for his son's education did not meet the expense to the institution, tendered his check for the difference. He and others maintain that they do not wish their children to be objects of charity or of community expense. Such an attitude has not become general, but the arguments currently advanced in its support have such apparent practical appeal that they justify analysis.

It should be noted in the beginning that the question of the ability of an institution to determine the cost per student unit in each of its activities is not raised by those who propose in the public prints that students pay the costs. This may indicate some ignorance of an actual situation. In spite of increased efficiency in the management of college business affairs developed by recent pressures, few educational institutions have perfected their cost accounting to the point reached by large business and manufacturing establishments. They are seldom able to determine with accuracy the actual cost per unit of each element of instruction entering into a modern college course. It was hoped that the results of the educational finance inquiry would aid materially in promoting institutional cost analysis, but this has apparently not been the case, although no criticism of its thorough and scholarly character is implied. The complaint heard most frequently with reference to the processes presented by the inquiry is that they are too complicated and involved to serve the needs of the educational institutions. This complaint is a confession that accounting systems that would be comparatively simple in a large business enterprise still appear mysterious and difficult to educational officers. The inquiry, however, has served to call attention to some basic principles of institutional accounting and has tended to turn the minds of educational officers from the desire to find some general method of cost analysis which would permit comparisons between institutions, to the more fundamental problem of arriving at an intelligible method of determining in detail the costs of their individual institutions. Discussion of payment of costs by students has, therefore, since cost can not yet be determined, been conducted upon a somewhat abstract and impulsive basis. It seems reasonably clear, nevertheless, that through all this agitation a new current of thought with reference to the social position of higher educational institutions is struggling for expression.

The conception of the purposes and objectives of higher educational institutions implied by much of the discussion is different

from that accepted in the past almost without question. It is derived chiefly from commerce and business. The idea seems to be that higher education should be carried on not as a business but in accordance with the principles of commercial operation and that the relationships between student and institution should, so far as cost are concerned, be defined in terms of any business transaction.

Of course it is self-evident that such a transaction will not be upon a strictly business basis unless the sum required of students meets all expenses, with adequate reserves for depreciation of plant and for emergency. The proposal that students pay this cost, however, is not simply a proposal that those who can afford an education go to the proper markets for it. A number of corollary principles and plans are included in the discussion in order to care for various degrees of student financial ability. It is a basic principle, however, that those who receive education in the proposed educational department store must do so under the modern one-price policy—the same cost to all for the same service. And since this is an age of credit economy, the further proposal is made that students who can not afford to pay these charges immediately be given an opportunity to take advantage of liberal long-term credit administered in a way designed to make benefactions safe, if not profitable. Other students might win prizes set up to encourage special abilities or attainments. Still others might be singled out and made recipients of private or public benevolences administered through the institution or by organizations that would encourage poor but worthy students as an incident to other activities. It is suggested also that special organizations may be set up for the specific purpose of making wise distribution of gratuities of this kind.

In general, much the same plan is proposed that is now being used by many so-called business colleges and by private preparatory and finishing schools. The old Valparaiso University had perhaps the type of business management which most nearly represents what is suggested for institutions of high scholarly attainments and specializations. Success of institutions of these types lies primarily in the fact that they offer something different, or claim to offer something different, from that which is obtained easily in institutions of other types. There may be in this fact a suggestion for the four-year colleges that more careful limitation of their services and objectives will permit the adoption of measures looking to a larger degree of support through the contributions of students.

Some of the implications of this plan are obscure. Other consequences and relationships shock traditional and accustomed ways of looking at higher education. Opposition arises from those who are familiar with the history and spirit which have inspired church and

private colleges. Champions of the principle of public higher education as well question the advisability, from social and economic standpoints, of making the relationship between institution and student one of seller and buyer. They doubt whether education is so much a matter of personal and private concern as it is a means of insuring public welfare. They maintain that anything that would tend to weaken the citizen's belief in his right to demand service from our colleges and universities, especially of publicly supported ones, would tend to destruction of social solidarity.

The discussion of costs from the standpoint of advocating greater contribution by the student has brought about no essential or especially significant change in objectives. No new principles have been developed. In so far as this discussion has significance it lies in the fact that processes and purposes formerly pursued and defended apologetically are now securing clearer definition and outspoken championship.

PUBLIC PRESSURE THROUGH POLITICAL ACTION

Increased demands upon the State and other public sources of support have resulted in various forms of public action through political agencies which have a direct bearing on the restatement of institutional objectives. The action of these public agencies, however, has not, despite the general impression to the contrary, been due entirely to unwillingness to meet the expense of higher education. They have been inspired in part by the spectacle of institutional rivalry between the agencies set up by the State to provide higher education. It is fairly apparent, even to men with so little direct contact with the colleges and universities as is the case usually of State legislators, that quite frequently State institutions come to look upon their activities from an institutional standpoint rather than from the standpoint of public service to a State constituency. To cite specific instances of this nature would be invidious, but anyone who is at all familiar with relations as they exist between different State institutions knows of the frequent controversy between the State university and the land-grant college when they are separate institutions, of the antagonism that sometimes is developed by both types of institution with normal schools and teachers' colleges, and of the jealousy that arises in the case of separate institutions for men and women supported by the State. Action looking to the creation of single boards of control over all State institutions usually arises from controversies that are explained through the substitution of consciousness of institutional independence for consciousness of community interest with other agencies in the State's program of education.

Further, action by public authority has to a certain degree been influenced by the fact that State institutions have sometimes followed the current example of privately supported ones in cutting off or advocating the reduction in the opportunity for admission. Where it has been impossible for them to exclude from admission, the same object has been accomplished frequently by drastic measures to eliminate at an early date after admission.

Several university presidents have called attention to the failure of institutions to respond to public opinion. One of them puts it thus:

Institutions of higher learning have been less sensitive to public opinion than have the elementary and secondary schools. They have maintained . . . that they know better what society needs and wants in the way of higher education than society itself knows.

Political action inspired by demands for large appropriations, by the spectacle of institutional rivalry, and by recognition of a tendency to restrict to comparatively limited groups the service offered by the institution, has resulted often in clearer restatement of institutional objectives, or in a growing consciousness on the part of public institutions that their field of freedom in determining objectives is limited by such control. They have been forced to recognize that they can not formulate their policies upon the basis of merely abstract and theoretical grounds. It is becoming increasingly less usual, therefore, to continue the custom described by one writer:

Conferences, local or national, have filled their hours of program discussion with theoretical rather than practical analysis of community requirements.

Dean C. Mildred Thompson, of Vassar, expresses an idea with reference to the curriculum that is applicable also to the entire policy of State-supported institutions:

One of the special needs of the curriculum is that it must be adapted to the kind of student who comes to college in this year and next, not to the kind who was here 10 years ago or who may be here 10 years hence.

Objectives must be formulated in terms of specific State situations and needs to a greater extent than has been the case in the past.

The pressures exerted by the State or by other political groups have been apparent to everyone in cases which have become so acute as those in Arizona, New Mexico, and Washington; but the significance of legislative action in other States, Massachusetts, for instance, has been quite frequently ignored. Where the situation has not been critical, somewhat hasty and arbitrary action on the part of political officers has expressed itself in terms of restricted appropriations or in the establishment of new institutions for the performance of functions that it was felt were not adequately exercised by the existing ones.

Educators have, on the whole, been inclined to condemn the action of political bodies in emphatic terms and sometimes with a degree of undesirable publicity, but seldom does such condemnation display a social understanding of the situation in contradistinction to the institutional or guild attitude. In view of what on the face of it appears to be arbitrary and unintelligent action, any degree of condonement may appear to be the expression of a mystical faith in the rightness of democratic methods. The fact remains, however, that higher educational institutions and others that are striving for improved service have to deal with social conditions as expressed in terms of governmental agencies and instruments. Recognizing this basic premise, it is extremely difficult to avoid the conclusion that if higher educational institutions depend upon public support for their existence they must be responsive to the desires of the body politic, which in practical effect means responsive to the political control of the State. It would seem to be the function of institutional servants of the public to explain their proposals and policies to the people and to the legislative bodies responsible under our system of government.

From the standpoint of education it must be admitted that many actions taken by these political agencies seem unwise and short-sighted. Yet it is noticeable that in few instances have educational institutions attempted to picture in clear and unmistakable terms their objectives as related to the State, and in many cases the claims of State educational institutions that they serve local State functions are expressed in the most glittering generalities. The solution of the problem would seem to consist in the formulation of more specific objectives which could be expressed in concrete terms of programs applicable to specific State situations. The effort needed to furnish political agencies with reasoned and serviceable educational policies would provide larger returns than mere condemnation of the mysterious and indirect ways in which democracy "finds direction out." This can not be done by the institutions until they themselves look upon their task in concrete terms based upon factual analysis of social and economic conditions in the State whose constituency they serve.

CULTURAL VERSUS VOCATIONAL

Discussion and action which arise from problems of numbers, from high costs, and from political influence are so intimately connected with immediately practical pressures that it is extremely difficult to relate them to any common intellectual concept. Abstract opinion and discussion in the realm of intellectual conviction are detached to a considerable degree from these pressures, and their trend is easier to estimate. Naturally, however, since they are abstract, these intel-

lectual influences have less immediate effect upon the formulation of objectives. Matters of opinion are in a sense more remote than the compulsion of immediate fact, but they are no less real. In the long run they may serve to guide development because they create tendencies rather than apply them to specific situations. During the biennium much discussion has centered about emotional and intellectual differences of conviction concerning the cultural and the vocational.

The basic idea is that the practical and the cultural are and must be "at the grapple." This is, of course, merely another phrasing of the old controversy between "the apostles of sweetness and light" and the Philistines. It asserts that the cultural and the practical, the scholarly and the vocational, can not be lumped together successfully.

A few years ago the champions of vocational and so-called practical education were the aggressors in this struggle. Recently, however, the question is raised chiefly from those who lament that higher education has changed its objectives during the past 20 years from those formerly embodied in the liberal arts college. It is asserted that culture and the instruction which produces culture are passing away as a result of the development of a situation in which the liberal arts college is relatively less dominant in higher education. It is asserted that the vocational motive now controls students and institutions alike.

This conviction is based in part upon the widening of the field of higher education in content and appeal. Immediately after the war, as a result of the rapid training of factory hands and of soldiers in the manipulative processes, the idea gained ground that educational institutions should emphasize training to very specific objectives. The two-year period under review gives many indications that there has since been a decided reaction, ~~if~~ not toward reinstatement of the liberal arts college, at least toward belief in general training with cultural implications. Even the vocationalists themselves emphasize a definite and conscious policy of developing general, sound abilities and individual mental activity as the most practical method to attain vocational objectives.

Like so many glorifications of the past, much of the discussion about the passing of culture assumes that in olden days clergymen and doctors and even lawyers never had any intention of making a living, that their motives in attending college were entirely those of scholarly and refined attitudes. Mr. Shenahan expresses the fact of the past as well as an increasingly dominant tendency of the present:

All the elements which contribute to a man's efficient control and use of his mentality, to his physical well-being, to his moral character, to his breadth

of culture, and to his fair and courteous dealings with men—all these elements are interchangeable and equally serviceable for physicians, surgeons, lawyers, and engineers.

He might have added for clergymen, mechanics, merchants, housewives, and for individuals in all the walks of life. So little has been said with reference to the tendency to accept this view of higher education and so much has been said in assertion of the passing of culture, that it is perhaps desirable to point out some of the specific matters of fact which indicate that the situation is not as critical as discouraged gentlemen would sometimes have us believe.

COLLEGES OF LIBERAL ARTS NOT DECLINING

The facts about the passing of the liberal arts education are not easy to obtain. Enrollments, unsatisfactory as they are as a measure of allegiance to culture, indicate that with few exceptions attendance upon liberal arts colleges is not declining and that the number of degrees obtained as a result of four years of devotion to the liberal arts shows no serious decrease. Studies made by the modern and classical language associations and the evidence collected by Brother Giles in his study of Latin and Greek in College Entrance and Graduation Requirements do not indicate decrepitude in these fields. Mathematics seems not to have suffered seriously. History and philosophy hold their own in the attention and devotion of large numbers. It is true that the purposes for which these things are now taught are not quite so vague and indefinite as formerly and that the methods used in their study partake to a larger degree of the scientific spirit than when "appreciation" or scholasticism controlled. Whether the combinations of these subjects which made the old arts course still engage as large a proportion of the total number of students as formerly is not known. If this could be determined it would afford a better basis for discussion than the abstract assertions so frequently found. It seems, however, that the worst that can be said is that the liberal arts type of education is now merely one of a variety of higher educational programs. That cultural study has lost ground since the days of our youth is by no means certain.

Many facts point to increasing recognition of the values described as cultural. These facts include such significant things as complaint on the part of several institutions that there is a trend away from science. The professional schools tend to emphasize more the aspects of education which have been regarded as cultural. They indicate a returning faith, if not in the disciplinary value of the so-called cultural subjects, at any rate in their practical value and in the habits of application developed by the exertion required to master them. It is true, however, that any form of mental application, even

when pursued for the purpose of earning money, has cultural value. It is apparent, as one writer puts it, that America will not accept the "European conception of scholasticism as the basis of organization of colleges and universities." Segregation of culture and of livelihood, of intellectual and of money values, does not take place in life. They are intimately interwoven. America is becoming increasingly insistent that they should become intimately interwoven in education. Fugitive and inconclusive evidence now found in obscure opinion and inconspicuous action seems to indicate that many four-year institutions now serving confused and imitative functions are tending to revise their objectives in accordance with this ideal.

EDUCATION AS A LIFE PROCESS

Expansion of services and multiplication of offerings which have been characteristic of higher education in the United States are tending to make real the conception of education as a process extending throughout life. If this tendency continues, it will have marked effect upon the objectives of existing institutions and will promote the creation of new ones. Theoretical acceptance of life as a continuing process of learning is, of course, as old as thought itself. But the idea that agencies should be provided to furnish training appropriate to all periods of life and to all the interests of living is comparatively new in the field of higher education. This conception does not accept stratification of educational advance, either as to the body of knowledge or as to age of learning. Chancellor Brown expresses the idea with reference to the college and professional student:

His technical or professional studies are not directed to a corpse (or cadaver) of knowledge but to an unstable, growing, adolescent body of knowledge.

The man or woman who has completed his education in the old sense is demanding that he, as well as the young college student, be given an opportunity to continue his orientation in the ever-changing aspects of material and intellectual growth. Such a tendency is found in the main in discussions of training for the intermediate levels, in the growing consciousness of adult education as a special interest, and in the flux of higher educational organizations and units.

By intermediate levels are meant those aspects of interest and occupation that lie between the merely manual and the highly technical or professional. They arise from the specialization that accompanies the development of complex mechanical and scientific society. Training for these levels implies a degree of general education in excess of that required for the performance of the manipula-

tive processes but less thorough and extensive than that required for the professions. Both secondary and higher education have lagged behind the demand in providing specific education for these interests and occupations.

Many higher education administrators regard provision of such education by the colleges and universities as dangerous and undesirable. It is maintained that such work would involve considerable reorganization of plant and of current conceptions of higher education. It is somewhat difficult to see why preservation of the existing organization of educational machinery and of educational concepts should be regarded as more sacred obligations than provision of the education needed and demanded. No one really believes that advanced study, research, and the professional forms of higher education will, by reason of provision for the semiprofessional intermediate levels, give place to trade or handicraft education. The pressure of society and of business for the most advanced as well as for the intermediate forms of training is too great. These pressures in both instances are not simply those of convention or of abstract conviction. They arise from the immediate and practical conditions of our material and social relationships under conditions of scientific knowledge and progress.

In spite of the growing desire to meet these modern conditions, two considerations still hinder development of training upon the intermediate levels: First, the convention of the four-year college course which makes anything less not quite reputable and hence not acceptable to those to be trained or to those who might undertake to give such training; and, second, the feeling that such training might tend to limit life development to specific fields and levels less remunerative and less esteemed than those attained through the four-year college.

Convention tends to direct development of higher educational institutions toward customary functions even though social and economic conditions may well justify other courses. This is strikingly shown in current tendencies among negro colleges and universities. They are passing out of the stage in which they were schools preparatory for the more manual occupations. The direction toward which their development is aimed is that of transformation into the type of college that in literature and tradition represents the highest intellectual achievement. In other words, they tend to become liberal arts institutions in the strictest sense of this somewhat vague designation. Preparation for the semiprofessional and technical utilization of manual skills is not now regarded by them, in many instances, as equally worthy with the attainment of ability to read Greek or compose poetry. This tendency, so evident among negro institu-

tions because the conditions of their development so accentuate it, is shared by many other institutions.

Americans are not yet ready to accept the view that the ambitions of youth should be grooved in a continuous line and that all energies throughout life should be devoted to deepening a single channel of progress. They cherish the freedom, which has expressed itself in the lives of so many men of outstanding attainment, to shift from one occupation to another and from one field of endeavor to others as opportunity or desire dictates. It is feared that training for the intermediate levels may tend to decrease this freedom.

The number of college graduates who attain great financial success or who occupy positions of honor and note is small, as compared with those who all their lives are engaged in maintaining themselves somewhat above the level of mere subsistence by means of work-a-day effort. Even in a democratic society those who occupy the apex of the community pyramid are relatively few and rest upon a constantly widening substructure of human life and effort. Nevertheless, educated men are sound in their refusal to accept figures of speech expressed in terms of static structure, whether they be "the top of the ladder" or "the apex of the pyramid," as presenting conditions analogous to those of social life. The intermediate levels will be occupied. Training will be needed and is useful upon these levels. Yet it is fairly obvious that few educators have accepted or will be willing to accept any system of education which tends to stratify American life. Provision for training on the intermediate levels must not tend to make more difficult or less likely later preparation for higher learning, but must contribute to the ease with which preparation for change is obtained and the change itself made. Perhaps some opposition to training of this character is due to the use of the expression "training for the intermediate levels." A better figure would be "preparation for life at the way stations of progress." People do leave the trains at way stations and people live there happily, some of them all their lives. But the trains continuously provide means of reaching points up the line to those who are prepared to go and are able to pay the fare. Whether ambitions for education take the form of mere excursions to new fields or settle upon more permanent life purposes, the way to realization should be kept open and in efficient working order.

ADULT EDUCATION

No single factor perhaps has contributed more to an understanding of the idea of education as a life process than the recent astounding growth of interest in the problems of adult education. The excellent studies made and the publicity given to adult education represent the development of general awareness of a movement that has been grow-

ing during the past 20 years. This development is in part due to the impetus given by the activities of the Carnegie Corporation in the field of adult education, but is hardly a measure of actual growth. The announcement of the formation of the American Association for Adult Education recognizes that its function is to give aid and expression to activities, not to create them:

The association plans no campaigns, no drives. It will seek to put on record the efforts of adult education already begun and stand ready to give them whatever assistance it can. Similarly it will stand ready to give advice and assistance to those that are in prospect or contemplation. It will publish pertinent material at intervals and convene conferences when subjects vital enough press for discussion. Most of all it will seek to accumulate a body of material bearing on the problems of adult education to which all those facing such problems may resort.

The expression "adult education" is displacing the descriptive terms "home study," "university extension," and similar expressions that have inadequately described the educational aid to adults which colleges and universities have tried to provide. This is fortunate. College and university administrators whose understanding of university extension was pretty largely confined to appreciation of its publicity value are grasping the connotations of the term "adult education," and tend as a result to reconstruct their educational outlook to accommodate extension activities and resident instruction to the attainment of a common social objective. Six or eight years ago it was usual to dismiss aggressive championship of the independent worth of the adult education activities embodied in university extension with a pun: "You must have something to extend." Except in the case of agricultural extension, it was difficult to obtain from college administrative officers, outside the extension divisions themselves, any other conception of extension work than that it was a tentacle of surplus material reaching out tentatively from the body of the institution. This attitude is disappearing. College administrators are beginning to view university extension as an element in their service coordinate with resident instruction in the contribution made by the institutions to a never-ending educational process.

What the effect of this viewpoint will be upon the organization and activities of the traditional as well as upon the newly developed units of our higher educational system is not yet clear. If, as seems likely, interest in adult education transforms the current conception of education from one in which it is visualized as a succession of institutions and of periodic progressions from diplomas, to degrees, to work, into a conception in which education is looked upon as a life process of which the school stages are scarcely more significant than other and perhaps subsequent opportunities to learn, the effect upon the objectives of resident instruction may be even more significant than those upon university extension.

Readjustments of institutional organization and relationships, such as the junior high school, the senior high school, the development of technical and social institutes, university extension and other forms of adult education, reorganization of relationships between the high school and college, between the lower and upper divisions of the college itself, and between graduate and the professional types of education, are all related to the development of flexible and universal provision for all varieties of educational demand. It is true that very little discussion has related these separate and distinct movements to this or to any other common conception of educational thought. Attention has been centered upon immediately practical concerns rather than upon interpretation of the common social forces which underlie specific proposals and accomplishments. Subsequent discussion of measures taken and devices adopted by higher educational institutions provide evidence of basic relationships to general ideas and to common ideals.

This is a convenient point to call attention to one illustration of the tendency to relate intimately formal education to subsequent life experience. Institutions and educators quite generally express discontent with the processes now preliminary to the attainment of higher degrees and with the lack of significance attached to them. They assert that these degrees are now obtained by running—or plugging—over a set academic course and taking without disaster periodic academic hurdles. They do not represent real scholarly attainment tested by experience and sanctioned by the judgment of ripe scholarship. This view has led Lehigh University recently to adopt a plan whereby it hopes to make aspirants for the advanced engineering degrees submit to the adjudication of time and experience. The four-year engineering course will in the future lead only to the degree of bachelor of science in the various branches of engineering. Five years of practical experience in charge of work after graduation and a thesis will be required to secure the title of civil, mechanical, electrical, or chemical engineer. An extreme proposal designed to accomplish similar results for the Ph. D. is as yet heard only in a semihumorous vein. In substance, the suggestion is that degrees in course beyond the masters be abolished and that all Ph. D's be made honorary and be granted for scholarly attainment no earlier than five years after student relations with any educational institutions have been severed. The idea is advanced in levity but is not without sound reason, since it implies recognition of real attainment in the scholarly walks of life after the formal achievements in academic cloisters have been tested by time.

The conception of education as a process continuing throughout life is in harmony with those tendencies of practical procedure now

evident in the universities and colleges which look to better service to the individual; to greater freedom in the exercise of individual abilities, and in the attainment of individual aims, and to concentrated effort both as to time and to content of instruction. It is reported that one of the great national educational associations has designated a committee to consider the question of the coordination of the units of our educational system. It is to be hoped that the efforts of this committee will not content themselves with examination of entrance units, graduation requirements, and prescribed subjects, but that it will approach the problem of coordination from the social standpoint and will attempt to define typical institutional functions in a way that will enable them to relate themselves to a system designed to provide education at all ages in any of the aspects of living.

APPLICATION OF SCIENTIFIC METHODS TO STUDY OF HIGHER EDUCATION

An outstanding development that has so manifested itself during the biennium as to take on almost the nature of a movement is the growth of systematic and scientific study of the methods and procedures of higher education. It is not implied, of course, that systematic and careful study of these problems has developed entirely during recent years. Certainly the causes for interest in such studies and the ability to make them lie further back than the past decade. It has taken two generations or more to make theoretical acceptance of the scientific method express itself as a mode of thought on the part of the intellectual classes represented in college administrations and faculties. Examination, however, in recent files of educational journals, of the proceedings of educational associations and of other publications embodying discussions of higher education gives the impression of an ever-increasing tendency to substitute reports of careful inquiry made upon a factual basis for inspiring and vigorous championship of abstract ideas. Presidents' reports naturally continue to be filled in large part with financial statements, but even these are tending to take forms that contribute to understanding of the educational situation as well as to knowledge of total debits and credits. Further, in the larger and even in some of the smaller institutions, the portions of the president's report, formerly taken up with innocuous statements on the part of deans and other administrative officers, are increasingly becoming discussions of significant facts carefully assembled, coordinated, and interpreted. Work of this kind that can be done and is being done more generally is well illustrated by the presidents' reports issued from Miami University.

It is true that there may be some tendency to collect information which is merely interesting or curious, and it sometimes happens that the technique of assembly and interpretation is faulty. There is, however, little justification for the attitude still sometimes found, which asserts that questionnaires may be multiplied and vast amounts of information collected, but the results are no greater than could have been obtained by the exercise of ordinary common sense in the beginning. The apparent element of truth in such statements fails to recognize the fact that there is a vast difference between conclusions reached upon the basis of "common sense" exercising itself upon incomplete data, and the same conclusion reached through processes of careful collection and analysis of adequate information. Opinions of this kind come from those who have failed to grasp the meaning of the scientific method. It is significant that the factual rather than the impression basis is rapidly becoming the guiding principle of educational discussion. Such an approach may well lead further than elaborate educational philosophies constructed upon a priori grounds.

A significant and important fact is that this attitude and the studies embodying this attitude are not found in large institutions and graduate schools alone. They, it is true, continue to produce studies of the greatest interest and significance, but the small colleges, institutions of which many of the leaders of educational thought have barely heard, are also collecting information about themselves and arranging and interpreting it in accordance with methods of sound scholarship in order to guide understanding and action upon their problems. Many of the institutions which are applying the scientific method to consideration of their problems are not distinguished for their attainments or outstanding educational contributions. Recent investigation reveals in several institutions of less than a thousand students, most careful study of the service of the college to the State or other constituency, based upon analysis of population, wealth, industry, and other factors. It is quite usual nowadays to see publications and mimeographs embodying educational studies prepared by institutions that but a few years ago were raising no questions except routine ones and these chiefly of how to secure students and money. Further, the methods used and the character of the studies produced are usually such as to excite the confidence and respect of the most highly qualified men in the educational world.

The list of such studies is increasing so rapidly and so many of them receive no circulation outside of the immediate campus vicinity that no adequate record or knowledge of much of this work exists anywhere. With a few exceptions, college faculty in the use of

publicity is not highly developed, and it speaks well for the serious and practical purposes for which most of these studies are made that the educational journals are not flooded with them and that pamphlet literature does not take on the aspects of a snowstorm. Nevertheless, it is unfortunate that these studies can not be systematically collected in larger numbers. They constitute an element of fugitive educational information that would repay synthesis or at least continued study.

Here and there, to be sure, institutions evidence a commendable tendency to publish faculty and committee studies of interral and educational problems. Such publication is on quite a different basis than that secured by individual initiative. Institutional printing of studies of this character gives the professor who places great faith in the advantages of publication an outlet for his creative ability through natural channels not involved in commercial considerations and promotion of self-interest.

It is significant also that these studies and publications are not confined to any one section of the country. It is true that in the East are located most of the older, larger, and better known institutions; that the educational journals for the most part emanate from the East; and that these institutions and journals are producing studies of the highest type and most scholarly character. This importance of the East is evident in a recent bulletin of the Association of University Professors, which confined discussion of presidential reports to institutions east of the Appalachians.

VIEWPOINTS OF THE WEST AND SOUTH

It is cause for congratulation that the number of studies issuing from the West and South is constantly growing and that their character is on the whole thorough and scholarly. Excessive dominance of eastern opinion, noted by many writers, is as a result giving way to the creation of a fundamental unity of national educational practice without destruction of variety adapted to specific local conditions. Where we used to hear only of Harvard, Yale, Columbia, Princeton, Pennsylvania, Cornell, and Johns Hopkins, we now look for the publications also of Peabody, Ohio State, Chicago, Minnesota, Iowa, Leland Stanford, Michigan, Wisconsin, and the University of California. In the far South no institution of similar weight has as yet developed, but in the South as elsewhere many important local studies are being made upon a scientific basis by the smaller institutions. All this means a broadening of contact and the application of varied influences to the problems of national education. Every region has something to contribute. Our scholarly impulses no longer come solely from north of Washington and east of Buffalo.

SCHOOLS OF EDUCATION AN IMPORTANT FACTOR

The schools and colleges of education are one of the most important factors in promoting scientific study of the problems of higher education. These institutions are turning out an ever-increasing stream of studies produced by faculties and by graduate students. The bibliographical difficulties in handling masters' and doctors' theses combine with the survival of the feeling that graduate-student work is not of much significance to prevent full utilization of studies of these types, although they are now usually produced under the direction of the trained faculties of the colleges of education. Detailed summaries, reports, or reviews of masters' theses and adequate collection of Ph. D. theses have not been arranged. A few of the larger institutions, such as Columbia, Chicago, and Ohio State, have arranged systematic methods of making such work available to their own students, but on the whole the vast amount of information collected and treated by graduate students under competent direction serves little useful purpose except to the student himself and perhaps to the professor directing his work. Since many of these studies are careful treatments of well-defined subsectors of higher educational fields, it is unfortunate that we should have no system of reporting them similar to that used by the law reviews. Such reporting might as a by-product also serve to raise the tone of some of the work now done for the master's and the doctor's degrees.

The tendency to rely upon careful scientific study of the internal problems of the institution is expressed most effectively in the growing development of the new profession of educational adviser to the president. Some of our larger institutions—Purdue University, the University of Minnesota, Oregon Agricultural College, Michigan Agricultural College, University of Pittsburgh, and several others—are setting up research bureaus or in less formal ways are assigning to persons freed from departmental responsibilities the task of study and presentation of the internal problems of the institution. Charles H. Judd, of the University of Chicago, proposes to organize a bureau of scientific service as a branch of the work of the school of education. If the plan is correctly understood, this bureau would provide smaller institutions that can not themselves afford to maintain officers for this special purpose with a means of securing disinterested study of their internal problems.

One important result of research of the kind under discussion is a decided reduction of the tendency to regard an educational device, or means of accomplishing an educational end, as an end in itself. The purpose or use of procedures considered is kept more prominently in mind and the method of accomplishment is more frequently sub-

jected to criticism and test. There is still room, however, for further application of the scientific spirit to use of popular devices and adaptations of organization introduced to the educational world under the auspices of agencies which command respect. It is still cause for amazement, for instance, to discover the number of institutions which give psychological tests to freshmen upon entrance and then make no or little use of the results. The illustration chosen is perhaps not entirely happy, since psychological testing has been promoted by the American Council on Education as a means of collecting data to be used for purposes of cooperative research in this field.

RESEARCH LESS INDIVIDUAL

Research is becoming less individual in the case of the problems of higher education as well as in other fields. The report of Dean Wilbur Lucius Cross, of Yale, depicts a situation which to a degree is interinstitutional as well as intrainstitutional:

Research all the way upward, from the guidance of graduate students to investigation conducted by trained specialists, is assuming a cooperative character. The departmental reports tell the story. They show scholars continuing researches begun a decade or more ago, of so fine a character as to have won recognition the world over. They show some departments functioning almost as a unit in an attack upon a single problem or a group of closely related problems. They show further that departmental lines, which have never been very rigid at Yale, disappear altogether when there arises a problem of several phases requiring for its solution the concerted effort of two or more departmental groups.

The magnitude of the existing body of educational knowledge and the complexity of the processes, which even an apparently simple problem involves, account in part for educational cooperative research. A more scholarly spirit, less seeking for individual advantage, wider acquaintance, and better means of recording and communicating results, also contribute. Surveys, such as those conducted by the Society for the Promotion of Engineering Education, by the Modern and the Classical Language Associations, represent cooperative effort which should bring results of national significance to higher education. The surveys of the negro colleges and universities and of all the land-grant colleges, now being conducted by the United States Bureau of Education, also involve intricate and widespread cooperation. This process of cooperative study has not, however, worked itself out very generally through institutional expression. There is little apparent tendency to accept coordination of educational study, similar to that which exists between the experiment stations of the land-grant colleges. Need still exists in the field of education for institutional specialization of study and for develop-

ment of coordinated relationships between the researches carried on by separate institutions.

It is apparent and significant that few of the educational studies made during the biennium are based upon, or take their departure from, thorough-going examination of social and economic conditions. One instance of the value of such application is afforded by the negro land-grant institutions. For years they carried on abstract and independent discussion directed to arrive at conclusions which would serve as real guides in the construction of programs of industrial education. Under the guidance of the United States Bureau of Education a study of the social and economic conditions which surround negro workers in the South was made. Upon the basis of facts thus revealed concerning opportunities offered by the society in which negroes live an industrial program was developed and is now being carried into effect, without reference to abstract artificial standards and without reference to the means or averages of practice, but in direct application to actual situations.

Desire to study actual situations has in one instance perhaps led to some distortion of the scientific attitude. With the growth of foreign fellowships, exchange of professors, and our closer relations with European economic conditions, some tendency toward an exaggerated valuation of European practice seems to have developed. Pres. H. N. MacCracken, of Vassar, expresses something of a critical attitude upon this matter in his report for 1926:

It seems wise to review these facts in this sixty-fifth year of Vassar history, because at the present time, largely owing to the favorable conditions of American economic life, the American educational world has been inundated by commissions and by private investigators, as well as by Rhodes scholars returning from the gray towers of Oxford, and by others returning with the spoils of the continental doctorate of philosophy, who would persuade us that our systems are all wrong. They are joined on this side of the water by critics who, with a conveniently romantic memory, recall their student days in Germany and choose to ignore all the progress that has been made in America since those student days.

The value of European contact and of study of European educational conditions and practices should not be minimized. Attention is called to this matter for the sole reason that in some cases an inclination is revealed to quote European practice as final in instances in which it is only the beginning.

Existence of a general tendency to increased use of factual and scientific studies to guide educational development and practice, and the fact that so little is generally known of this field of higher educational study, suggest that a clearing agency to report studies of this character might render a most useful service. This suggestion appears more practical and desirable in view of the results of

the work of the educational research bureau in Purdue. One of the aspects of its work is the production of a mimeographed summary of the current literature in higher education. This was undertaken because the impression existed among faculty members of Purdue, as it does elsewhere, that very little helpful literature exists or is being produced in the field of higher education. The experiment at Purdue created a tremendously increased demand for the material described in the review and also, without publicity, brought about an impressive demand for the mimeograph from institutions throughout the United States. The work of the National Committee on Research in Secondary Education also suggests that there is place for some agency to serve a similar function with reference to higher education. The Committee on Research in Secondary Education lacks an adequate means of disseminating the information which is available to it. In the field of higher education it would be very desirable that frequent periodic reports of studies completed or under way be embodied in a publication. Probably such a venture could not be placed upon a commercial basis. It should enlist the cooperation of a large number of institutions and educational agencies and should be free from any hint of exploitation from a commercial or institutional standpoint.

BETTER EDUCATIONAL SERVICE TO THE INDIVIDUAL

Limitation of the services of institutions, the desire to interweave the cultural and the practical in higher education, the view that education is a life process—all these tendencies unite to provide better educational service for the individual student. President Lowell, of Harvard, in his report for 1924-25, notes this increased interest:

The trend away from the older system of instruction, imparted wholly by independent, self-limited courses, and toward a new conception that the student is the only true unit and end of education, has been making headway in recent years in many institutions of learning.

The dean of Columbia College prefixes his report for 1925 with the following statement:

It will be observed that practically every question mentioned in the following pages has its roots in the attempt to make the college a place where each individual may have the opportunity to develop to the full any capacity that he may possess. This principle regards the individual student as the unit on which our system of education is built, rather than the professor, the curriculum, or the social collegiate experience.

A number of educational and intellectual, as distinct from material, considerations have contributed to acceptance of this attitude on the part of college faculties and administrative authorities.

The amazing progress of psychological study, especially that which has concerned itself with the capacities, abilities, and learn-

ing processes of the individual, has percolated through the entire academic world. Temporary checks placed upon recognition of the worth of these studies through the application of the term "psychological" to a variety of trite and foolish developments has been overcome to a large degree. The underlying trend of this psychology, or the understanding of it by those outside the technical field of psychology, has been in the direction of emphasis upon the importance of the individual, his motives, his mental processes. Class lectures, class drill, and other more or less mechanical forms of controlled exercises which pass for teaching, are giving place to methods which depend upon the individual's own activity in learning. As a result, teaching tends to become less generally a process of the professor filling the pint of student capacity by pouring from his widow's cruse of inexhaustible knowledge. The individual student is looked upon as living, self-actuated organism who in life will, in spite of social pressures and material environment, determine in large part his own relationships and direct his own activities. Interest in the individual is evident in measures taken by institutions that may for convenience be discussed under three topics—student relations and welfare, improvement of teaching, interest in the superior student. Each of these topics will be taken up in turn.

STUDENT RELATIONS AND WELFARE

What is meant by the interests, activities, and relationships comprised in the term "student relations and welfare" is perhaps best expressed by the committee appointed at the University of Minnesota to study "all those influences affecting life, character, and training of young people in a university." This committee will consider—

not costs of education, not faculty needs, not building needs * * * but the welfare of the student and the extent to which all other activities are actually benefiting the young people for whom the institution is created * * *. Student welfare will be interpreted by the committee in its broadest meaning, implying all benefits received by the students from everything that goes on at the university, whether participation is required or they take part of their own initiative.

No such broad study has ever been made, but successive points of outstanding interest and importance with reference to student welfare may be summarized briefly by this review of the biennium.

Freshman Week, inaugurated some years ago, has spread rapidly during the period. Originally adopted as an experimental means of making the transition from home to college life less abrupt, it is being accepted and used almost as a standard phase in university and college procedure. A study made by Mr. Stoddard and Mr. Freden, of the University of Iowa, on the status of freshman week

among 84 institutions with the largest enrollments shows that 27 had experience with freshman week and that 21 had definitely set a date for inaugurating it. The growth of this practice among these 84 universities is shown by the fact that "in 1922 freshman week was inaugurated in 1 university; in 1923, in 3; in 1924, in 8; in 1925, in 15; in the fall of 1926 it will be inaugurated in 20; in 1927, in 1 definitely and in 1 probably; in future (as yet not decided), in 12."

The more extensive attempt by Yale University to develop a freshman year has proved very successful at that institution. The scholarship of the class has been raised and the percentage of those dropped for academic reasons has decreased from 10.9 per cent to 8.5 per cent. While there seems to be a greatly increased interest in the entire freshman year on the part of many institutions, none, so far as known, has imitated Yale in formal organization. The interest in the freshman year and in the individual freshman is elsewhere expressed by more attention to his relationships with the faculty and with other students. At the University of Illinois, for instance, every freshman, senior, foreign student, and student on probation is given a faculty adviser. Similar special attention is given at other institutions in guiding him through his courses and in offering him opportunity for personal advice and assistance.

At Yale freshman year has been handicapped by the necessity of housing some freshman off the campus. In order to effect social control and to create community spirit, attention is also being given at other institutions to the housing of freshmen. Vassar, for instance, has withdrawn all freshman nonresidents from houses in the vicinity of the campus, thus, as the president's report expresses it, "resuming complete responsibility for the environment created during the process of undergraduate training." Common tables for freshmen are also being advocated, even in situations which make housing together impossible as yet.

One of the objects of requirements that freshmen live and eat together is the control it affords over health conditions. Examination of reports shows an astonishing development of other measures adopted to regulate and to improve health. At many small institutions, such as Bates and Skidmore, the attention given to the health of students is as outstanding as in some of the larger universities. The situation at the University of California is perhaps typical. At that institution over 75 per cent of the entire student body made use of its infirmary one or more times during a single year. At Miami University 433 of the 1,701 students received treatment in its hospital. The clinical reports show even more impressive figures. In Ohio has been formed the first State section of the American Student Health Association, under the name of the Ohio Student

Health Association. Care and interest of this kind indicate a recognition of the educational importance of student health from the corrective standpoint. Activities noted in preceding bienniums which emphasize student recreational exercise have become so general that it would be difficult to discover outstanding developments.

Closely related to the attention given to physical health by the colleges and universities is the increased importance attached to the creation of agencies to care for the mental health of students. The work done at Vassar, the University of Minnesota, at California, and elsewhere has not received the attention it deserves. Misconception and inadequate understanding of the assistance which may be rendered through a service that has been handicapped by the name "psychiatry" usually takes the form of belief that its field is that of treatment of the insane. This is, of course, not the case. These services in the universities are concerned for the most part with the removal of mental obstructions to the fullest personal realization of abilities and character. In the present state of knowledge in regard to these matters, it is true that the extreme cases are receiving most attention. But the knowledge gained may point the way to useful service that may well be extended at some period of their lives to many individuals who are regarded as mentally and morally normal.

STUDENT REGULATION

Certain matters of convention and practice that are usually not interpreted in moral senses, but are of importance and significance in the college social community, continue to receive attention. The regulation of the use of automobiles has received much publicity, largely because of the action taken by the University of Illinois in forbidding their use. Institutions as far apart as Princeton and the Texas Agricultural and Mechanical College have also inaugurated drastic motor-car regulation. It is argued in support of careful regulation of the use of motor cars by students that automobile users tend to low scholarship and waste of time; that accidents, violation of law, and moral delinquencies result from free-use of this means of transportation and recreation. In spite of the discussion and the action condemning student use of the automobile, drastic restriction has been on the whole regarded by many institutions with amusement. In some instances it is contended that cutting off automobile privileges does not meet the fundamental situation, which is to provide training which will give self-control in regard to use of time, inspire care for the rights of others, create interest in scholarship, and insure respect for the law, both statutory and moral.

The question of smoking, especially on the part of women students, is still a subject of discussion and consideration. On the whole,

however, the tendency probably is to regard it from the standpoint reflected in President MacCracken's statement:

As a social practice, students are, in the opinion of the faculty of Vassar College, entitled to decide the matter for themselves. As a habit injurious to health, the college is entitled to drop students who for this cause or any other fall to measure up to the minimum standard of physical fitness.

In the West and South smoking by women is looked upon as having significance of greater social import than is the case in the East. This is especially true of smoking by women, but eastern men are frequently surprised to find that smoking by men is also forbidden or discountenanced on the college campus and in the college buildings. A conference was held recently in the East, which included representation from Bryn Mawr, Mount Holyoke, Smith, Vassar, and Wellesley, to consider the question of smoking by women students, but no joint action was taken. President Woolley's report clearly states the significant feature of the conference, in which representatives of student government participated. The important point in her view was not a question of smoking or not smoking, but "the result of the discussion is a willingness on the part of the student body to bring the problem of college living up for a joint discussion between them, the faculty, and the administration."

STUDENT SELF-GOVERNMENT

During the period under consideration self-government by students has been undergoing reëxamination and criticism. This is especially true in the men's colleges, but is not manifest in the women's self-governing associations. At Wisconsin, after 20 years of experience, self-government by the men students has been abandoned. At Yale, after a period in which the student council apparently refused to exercise its functions of investigation and disciplinary action, reorganization has resulted in a rejuvenation which has produced "results that were at once surprising and gratifying." At Cornell also doubt has existed with reference to the self-regulation of student conduct, but in his last report the president expresses satisfaction over the spirit which dominates students' administration of matters that fall under their control. The president of the University of California also highly commends the student government of that institution.

In so far as questions with reference to student government have arisen, they seem to center largely about distaste for the exercise of investigative and disciplinary functions. Faculties do not like these duties, and in some cases their transfer to the student body has been dictated by the idea that the faculty would thus escape responsibility in the sphere of punishment and police, rather than by a constructive plan for developing the spirit of real student participation in the management of his environmental and social life.

RELIGIOUS INSTRUCTION

Several symposia upon the subject of student welfare have centered about the question of voluntary and compulsory chapel attendance. No consensus of opinion seems to have been reached. The faculty of Vassar has gone on record as favoring voluntary chapel, and 1925-26 ended compulsory chapel at Yale. Compulsory attendance at chapel in most of the southern and western institutions is apparently causing little concern. Most of the discussion does not clearly distinguish between chapel exercises as religious services and chapel exercises as serving the functions of general student assemblies. The question is therefore a confused one in many respects. Probably their attitude toward chapel attendance does not adequately measure either the interest of students or their attitude with respect to religious observances and religious faith. Certainly the prominence given to advocacy of voluntary chapel does not indicate a decline in the colleges and universities of interest in religion either on the part of students or administrations.

Religion in education has during the biennium been discussed to an extent that makes it almost take on the character of an important development. It is difficult to determine how much of this interest is due to recrudescence of the traditional dominance of religious motives, a dominance that has always been, and probably always will be, stronger than preoccupation with less personal motives sometimes leads us to believe. Much of the discussion is due, no doubt, to recurring alarm on the part of middle age as to what the younger generation is coming to, and it evidently represents an attempt on the part of the elders to revive early religious training as a means of saving youth. Some of the interest is due to readjusted views of education, which lead to the conviction that knowledge and culture, whether scientific or classical, fail to create elements of character demanded for social and individual welfare. Whatever the cause for revived interest in student religion, studies show in State-supported, as well as in private and denominationally controlled institutions, that the number of courses in religion, in biblical literature, and in related subjects has been greatly multiplied. The approach to this instruction has been well described as follows:

The aim of instruction is to examine in scholarly fashion and with impartiality what religion is and what part religion has played in the history of the human race. The subjects of these courses include the Bible, the study and interpretation of religion, church history and religion as a factor in personal and social life.

The impression gained is that in so far as institutions are embodying education about religion in formal courses, they partake in only a slight degree of the deep emotional fervor which inspired religious instruction prior to the development of the scientific spirit.

The topic of religious instruction suggests a digression from student relations and welfare to call attention to the educational standards of seminaries for the training of Protestant clergymen. There is in many institutions of this kind a very low standard of scholarship. The courses offered have little uniformity of intellectual content. No generally accepted standard course intended to prepare clergymen exists. Among Protestant denominations, church bodies exercise very little control over the instruction given in preparation for their ministries. Conditions of admission range from grammar-school preparation or even less to the requirement of a first degree from a reputable college. The graduation requirements and the degrees granted at the conclusion of the courses of study are equally confused. The relationship of work in the theological seminaries to that of the colleges and universities, especially to the graduate schools, is uncertain and unsatisfactory. Under modern conditions it would appear desirable that, even though common agreement as to basic content can not be reached, the seminaries of individual denominations might well, in cooperation with church bodies, agree upon more uniform standards.

IMPROVEMENT OF TEACHING

Ever since teaching has been considered from the professional standpoint, it has been asserted that the poorest teaching in the world is found in the colleges. Until recently, however, there has been little direct attack on this problem. Courses of study have been given looking to preparation of grade and high-school teachers, but none for the training of college teachers. No doubt the teaching function in the colleges has been regarded as important, but practice has made advance in salary and rank depend more largely upon preparation in subject matter and upon research, literary, or other creative activity than upon the quality of classroom work. Increased interest in service to the individual student naturally has raised the problem of better college teaching into new prominence and has produced effective action.

The Bureau of Education recently supplemented a study made by Prof. C. D. Bohannon, by an informal investigation of 74 higher-educational institutions to determine what measures had been taken looking to the improvement or control of the quality of teaching in these institutions. This study showed a very definite trend toward administrative action to deal with the problems of teaching by means other than those of encouraging research and graduate work in subject-matter fields. Fifty-six of the 74 have taken steps to improve the teaching work of their college faculties. Seven of the 74 now require definite amounts of teaching experience prior to employment, while 7 others do not specify exact amounts, but will not employ

teachers who have had no teaching experience. Only 4 of the 74 have adopted fixed amounts of professional training in education as a prerequisite to employment, but 4 other cases "look for" such training. In the case of Rhode Island a recent law establishes a professorial certificate issued by the State commissioner of education upon the authority of the State board of education. This certificate entitles instructors in State higher institutions to participate in the State pension provisions. It specifies the equivalent of 15 semester hours of professional teacher training as one prerequisite for securing the certificate. Clemson College, South Carolina, does not prescribe definite amounts of professional educational training but has adopted the device of promoting members of the faculty who are about to receive a year's leave of absence for study. They are asked to include in their study the professional educational subjects related to their specific fields, if they have not previously had such training.

Many colleges and universities are now offering courses looking directly to the preparation of college teachers, either courses intended primarily for graduate students or especially designed for members of the faculty already employed. The University of Chicago, Cornell, New York University, Columbia, Indiana, Harvard, the University of Texas, and Ohio State all offer such work. It is true that in many of these instances the main emphasis is on college administration and organization rather than upon subjects ordinarily regarded as training for the teaching profession. Eleven of the 74 institutions investigated by the Bureau of Education give courses to prepare graduate students to become college teachers or special courses for their own faculties. The content and method used in the courses given have not yet been fully developed. Ohio State University, in a three-quarter course; treats first of the scientific method; second, of the historical and social background; and third, of such questions as the logical versus psychological organization, the meaning of liberal education, and the like. The New York University School of Education has inaugurated a three-year graduate curriculum leading to the Ph. D. The fundamental purpose is to prepare men and women to become teachers in colleges, universities, and professional schools. The thesis subject must be chosen from some field of higher education which will tend to promote improvement of teaching and administration.

COURSES FOR FACULTY

Courses organized especially for the faculty are usually not very successful even when enrollment is voluntary. Attempts to compel attendance of the faculty are looked upon by faculty members as unjustified interference with personal liberty and have as a result most frequently met with failure. Whether attendance is voluntary or compulsory, however, success in such special faculty courses has

been attained only when the course is planned by the class itself upon the basis of individual problems. The New Mexico Agricultural and Mechanical College has upon this basis secured enthusiasm and important results.

Special courses, whether upon a graduate basis or specially designed for the faculty, have not been tried in many of the institutions where real progress has been made. Encouragement, and pressure in some cases from the administration, have in 11 of the 74 institutions secured enrollment of faculty members in regular school of education work. The benefits of such attendance are based upon the belief that the principles given in courses, for instance, in secondary education, may be applied by mature men to the somewhat different conditions of college instruction.

As a means of arousing faculty interest in college instruction and in some cases for the definite purpose of instructing the faculty, short courses, forums, and lectures by outside men of prominence in the professional educational world have been organized by 19 of the 74 institutions. Reports indicate that the results of this type of work have been good, but it is being realized increasingly that some form of follow-up is needed to supplement faculty training of this character.

The lack of permanence and continuity in short courses conducted by outside educationists is overcome in part when faculty clubs are organized or diverted to consideration of teaching problems. Fifteen of the 74 colleges and universities investigated show activity of this type that enlists the participation of faculty members upon a self-organized and voluntary basis.

It is significant that the greatest change in the character of faculty meetings has been in the direction of introducing one or more meetings a month, at which carefully prepared programs dealing with the problems of higher education are discussed. In 28 institutions of the 74, this is the practice. Quite frequently such proceedings lead to the formal organization of faculty committees and subcommittees which take up seriously the study of specific problems of teaching. Although a new venture, the organization of committees and subcommittees for these purposes at the University of Oregon represents one of the most careful attempts to enlist in this way the interest of faculty members in the problems of instruction. It is said that from two-thirds to three-fourths of the faculty at the University of Oregon have thus been actively interested and engaged in consideration of these problems.

The most embarrassing question that can be asked of college administrators and of faculty members with reference to the teaching of an institution is: "How do you know what kind of teaching is going on in this college?" Although in 19 of the 74 institutions studied some form of inspection is reported, it was found that this

inspection is in many cases perfunctory or neglected and has not assumed the importance that supervision has in the public schools. There is considerable misunderstanding about this matter. Faculty members resent formal supervision, but would probably be inclined to change their attitude if they fully realized the importance given by administrative officers to student opinion in estimating faculty efficiency. Inquiry at over 50 institutions shows that, whether they know it or not, the faculty is continually subjected to student supervision and report of an informal character which has become of primary importance in the administration's estimate of classroom work. It would seem that expert supervision by mature and trained persons belonging to his own craft would be more acceptable to the college instructor.

Although faculty members are inclined to resent any direct attempt by the administration to supervise methods of instruction used in the classroom, they are more willing to admit the legitimate interest of the administration in the content of courses. Since the poor quality of college teaching has in part been due to poor organization of the materials of instruction, the practice, now introduced by several institutions, of requiring detailed syllabi of each course tends to improve classroom work. It requires careful analysis of the material and ground to be covered.

In the engineering school of the University of Missouri a somewhat more careful consideration by the faculty member is required. Three questions are asked of each member of the engineering college: First, with reference to each course the instructor is asked to state why engineering students should take the course; second, he is asked to state the specific things that he expects the student to learn to know and to do by taking the course; and, third, he is requested to put down how he proposes to teach the student to know and to do these things. The Oregon Agricultural College also has in the engineering division a similar but somewhat more elaborate method of arriving at information of the same general character. The results of these inquiries are extremely interesting and lead to many important results. Possibly the professional spirit of the faculties in engineering schools which makes them refer to themselves as "engineers" rather than as "professors" may account for willingness and industry in promoting such investigation.

At the University of Southern California another method of approach has been devised which is of considerable interest and which might be adopted by other institutions. Upon the basis of the well-known Cardinal Principles of Secondary Education (Bureau of Education Bul. 1918, No. 85), 10 objectives for college education have been defined. These objectives have been explained to faculty members, and each instructor is required to state in writing what each

of his courses contributes toward the attainment of these objectives. Study of the returns has not yet proceeded far, but such examination as has been made indicates that useful suggestions for further inquiry and for certain adjustments may be derived. Many of the returns from members of the faculty, however, show that in their opinion the inquiry smacked somewhat of the abstract and impracticable.

The results of the inquiry conducted by the Bureau of Education are, on the whole, encouraging. They indicate, at any rate, that attention and effort have been centered upon problems that have in large measure in the past been foreign to faculty consciousness. As yet formal requirements of professional education do not exercise much influence either as a basis for employment or upon those already employed. Self-directed and self-controlled interests of the faculty and incorporation of study of teaching problems in administrative programs submitted for faculty consideration seem most effective. When matters that concern administration or content of courses is made the starting point for further study, subsequent developments tend to be most productive. It still appears, however, that no criteria satisfactory to university faculties have been accepted as a means of measuring good teaching.

INTEREST IN STUDENT QUALITY

Parallel to the desire for better service to students is the desire for a better grade of students to serve. During the biennium attention has been centered largely about service to the gifted or superior student, so conspicuously neglected by our ordinary college procedure, but this aspect of discussion by no means indicates the limits of interest and action with reference to student quality.

Some of the discussion upon this subject is Carlylean in dyspeptic misinterpretation. It asserts that there are a large number of pit wits now in college, even though evidence points to quite the contrary.* One writer asserts that a large proportion of college students "can not grasp the essentials of any subject of college grade." Humorous or cutting phrases have frequently given a wrong impression of the college, such as that of Brander Matthews's description of college as "a well-appointed country club with incidental opportunities for study." These attitudes of mind and the attitudes produced by such statements tend to take the view that higher education should exist for the gifted student alone. It represents a departure from belief in the value of college training for every degree of intelligence and of persistence capable of scrambling through or over the obstacles now set up for admission and graduation. It disregards the fact that a large proportion of the men and women who are doing the world's work are not especially gifted and even that

many of those who are most influential in directing the world's affairs are of mediocre ability as measured in terms of scholastic attainment or of studious habits and tastes.

Special provision for the gifted student is highly desirable, and tendencies indicate that this group will soon be adequately cared for. The results of a generation of such a consciously selective process will be awaited with interest. There is little likelihood, however, that the product will monopolize the intellectual and directive pursuits of the Nation. Both the publicly supported and the privately supported institutions that are inspired by the missionary impulse will continue to reproduce more nearly the conditions of a world in which gifted, mediocre, and moron are mingled together in varied relations and contacts.

In general, the tendency to manifest interest and obtain knowledge of the quality of students admitted and educated is a part of the general raising of the level of mass education and is closely associated with increased solicitude for the individual. It has, it is true, been expressed frequently in terms of higher admission requirements, higher passing grades, and more severe requirements for graduation, but it is also evident in the conduct of more searching personnel inquiries and in efforts concentrated upon the deficient student.

Emphasis upon selection and upon selective processes as means of raising student quality is evident in the action taken by many institutions. Miami University, for instance, wishes to impose a general entrance examination for freshmen in the liberal arts similar to that given to students entering the teachers' courses and advances as an argument that this plan would eliminate 10 per cent of the weakest applicants. The University of California has entered into a very commendable cooperative arrangement with the high schools whereby no student is admitted except upon specific recommendation of the principal of the high school, the understanding being that the university desires to secure students of high quality only. The arrangement protects the student against mistaken judgment on the part of the principal by providing that he may also obtain admission by taking the examinations of the college entrance examination board. As a result of this arrangement the university itself has abolished its own entrance examinations. The University of Nevada in the fall of 1927 will put into effect the requirement that every resident of Nevada applying for admission from Nevada high schools must present 4 of the 15 units with a grade of 80 per cent or better, and in the fall of 1928 it will require that 6 of the 15 units be presented with this grade.

In cases in which, for various reasons, it is impossible or undesirable to restrict admission too greatly, grade requirements and other processes of elimination after admission are being adopted

more generally. The most extreme expression of desire to eliminate is that made by the American Association of University Professors. It proposes to eliminate arbitrarily upon a percentage basis at the end of the sophomore year and to admit to the junior year only a prescribed number of students. This has an academic sound and embodies some of the mechanical characteristics that have been so much criticized in American higher education. The Oregon Agricultural College requires a junior certificate showing that the student has completed the requirements of the first two years before junior standing can be obtained. At Pennsylvania State College the freshman class was cut to two-thirds at the beginning of the sophomore year and to one-half of its original strength at the beginning of the junior year. The school of chemistry and physics requires that the student maintain throughout his college course a record close to that prescribed by the credit point system for graduation. It is stated that if the credit point system in this institution had been in effect in June, 1926, 13.6 per cent of the graduating class would not have graduated. While the credit point system, which has become almost universal in its application, apparently concerns graduation alone, its effect is to eliminate at earlier stages students who tend to drop below the minimum, and particularly those who prior to graduation drop so far below the minimum that they can not recover lost ground.

The graduate and professional schools also tend to raise standards for admission and graduation. It has been asserted publicly that this tendency of the graduate and professional schools is dictated by a desire to limit the numbers furnished to the profession, but desire to raise the character of the professions is also a controlling motive. Cornell Law School went on a graduate basis in September, 1925, and all law schools in New York show a tendency to raise admissions above former standards. During 1925 two law schools in the State raised their requirement for admission to two years of college work and one raised it one year. The University of California school of jurisprudence has increased its requirement for admission by requiring the A. B. or B. S. from the University of California or the equivalent, but it admits from the college of letters and science and the college of commerce of the university students who have senior standing. The University of North Carolina has established a ruling that in 1927-28 applicants for admission to the medical school must have an average grade of 80 per cent in their two years of premedical college work and that in 1928-29 an average of 85 per cent will be required.

HONORS FOR GIFTED STUDENTS

The plan of honors courses, which is typified at Swarthmore, still excites much interest and study, but is not being adopted generally

without modification. It was, of course, not intended to be so adopted. The tendency is to adapt practical procedure in other institutions to basic desires to secure intensification of educational effort, to raise the quality of the student body as a whole, and to provide means to care for the especially gifted student. On the whole the tendency seems to be to go one step further than the honors courses do and to raise the question as to whether the methods applicable to the selected, specially gifted student are not applicable also in a certain degree to the general run of students. In other words, the impetus and experience given by those who are emphasizing the honor student is being used as the starting point and guide for the reexamination of the entire process of educational organization and of methods of procedure.

Some of the plans adopted are of special interest. That at Dartmouth is described under the title "Four proposals to build power," and has been developed through the joint efforts of the administration, the faculty, and the student body. The plan is as important for education during the first two years as for the last two, although it partakes of many of the elements of the honors course during the later period. At Yale Law School students are allowed in the third-year class to elect work in small groups in certain subjects with instruction by the seminar method. Princeton has reduced the number of courses required of seniors of high scholarly standing who wish to devote additional time to investigation of subjects in their special fields of study. As a result of the measures taken by Princeton the institution has been charged with setting tasks for undergraduates which only graduate students are capable of doing. The allegation is an example of current underestimate of undergraduate ability to work and to carry into study the spirit of extracurricular activities. That the charge is not true is evidenced by the fact that two senior classes of 400 each have met Princeton's requirements.

At Stanford students are allowed to choose for independent study a program of work outlined by a faculty adviser. The student is responsible for his time and accounts for his results through an examination during the graduation period.

The University of California has established an honor list of upper-division students who maintain a grade of B or above. This list is printed and the students are given special library privileges and may do special work under the supervision of the major department.

Miami University rewards scholarship in a somewhat unusual way, although it is merely an adaptation of the honors plan of excusing from the requirement of regular attendance upon exercises and classes. The high-honor students—that is, those who make 125.5 or above—have all absences for the semester canceled. This is im-

portant in this institution, since for every 20 uncanceled absences one hour is deducted from the credits made by the student during the semester.

At Vassar another unusual substitute for honors courses has been devised. The publication known as *The Journal of Undergraduate Studies* has been inaugurated. In addition independent study is provided by giving extra hours of credit which are "attached to certain advanced courses to allow for more intensive work by the student, independent of class hours."

One of the most interesting adaptations of methods to insure a suitable rate of progress for the especially able or the especially industrious student is that provided in certain subjects at Purdue University. The account of this experiment which has been printed by the university is entitled "Double-pace students." The plan permits completion of certain work in half the time ordinarily required and for transfer when occasion arises from ordinary pace to rapid-pace sections or the reverse.

INTENSIFICATION OF THE EDUCATIONAL PROCESS

The varied and complex programs offered by the colleges and universities have created the impression that the work of the individual student is equally varied and dispersed. As one writer expressed the opinion: "Varied activity has been substituted for the ability to think." This view is, of course, not entirely justified, but has enough basis in fact to warrant discussion of recent trends looking to concentration and intensification of the educational process.

Interest in the individual student, improvement in college teaching, provision of opportunity for the superior student, all have a direct bearing upon this problem. The demands of employment and professional occupation have also contributed to bring about greater concentration of mind and effort on the part of college students. This demand is expressed in an opinion contained in a discussion of the premedical course at the University of Michigan:

I am struck by the fact that the pressure [of work] in most colleges is at the present time too low for those who have made up their minds to undertake the study of medicine. * * * I believe that a stiffer grade of work would be in the interest of a more accurate selection.

President MacCracken, of Vassar, says:

We must expect our students more and more to seek opportunity for a greater concentration of time, longer and fewer written papers, fewer and more important appointments, fewer and more specific lectures.

Another cause contributing to desire for greater concentration of time and effort arises from the fact that the present generation of our college faculties has been trained and accustomed to regard research as highly important. Analysis of or even reminiscences about the

creative intellectual values of these aspects of their education as compared with those that were derived from class attendance and note taking has led many faculty members to wonder whether the principles and impulses which characterize research work may not be applied to undergraduate college education with more effective results than have been obtained through the traditional methods. Evidence exists everywhere in our colleges which shows student devotion to activities in which they create their own interest and over which they exercise their own control. Further, scientific progress has been so impressive that the scientific method has become a slogan of those who are devoted to the educational life, if not always an instrument completely under their command. Personal inquiry, hunger for facts as a basis for understanding, is of the essence of the scientific spirit. Neither ready-made facts nor conclusions, such as much college instruction has offered as the main dish on the educational menu, appeal to scientifically trained faculty members. They are beginning to show considerable reluctance to offer their students no more than this.

Ordinary class work has required little intellectual exertion, certainly little of the spirit of scholarly research, on the part of the student. It has not, according to current criticism, compelled independent thinking and mental struggle. Research training has so developed the professor's own creative impulses that he is now seeking methods of teaching which will aim at developing in the student the impulse to discover and to systematize knowledge. The project method so familiar in agricultural education is receiving increased consideration. Under this method the fundamental element is consideration and solution of problems by the student. The principal concern of the instructor is the methodology of the student's approach to the problem and of his collection and handling of data required for solution. This method is in harmony with the tendency of the world outside the college to demand from students not specific knowledge, but ability to work and to tackle new situations.

These reasons for growing interest and action looking to intensification of the educational processes are supplemented by facts which indicate that American students are not so far advanced at a given age as are European ones. It is felt that the age of college entrance and the age of college graduation are too great. At Cornell, for instance, while the prescribed age for entrance is 16 for men and 17 for women, the average is 18 and the median even higher. It was also discovered that 478 freshmen offered a surplus of entrance credits averaging 1.41 points beyond the required 15 units. At the Oregon Agricultural College it was found that the age of freshmen

1925-26 was 19.62; of sophomores, 21.40; juniors, 21.40; and seniors, 23.47.

A recent study made by the Bureau of Education indicates to a considerable extent that one year of the four-year high-school course is not really preparation for the work now given in colleges. Institutions seem inclined to accept the conclusion that the formal standard of 15 units for the four years of high-school study can be broken down without harm to the character of the work done in college. Seven and eight-tenths per cent of the four-year colleges now admit on the basis of 12 units of senior high-school work. Of the private colleges, 9.4 per cent with enrollments of less than 500 admit under the 12-unit basis, while of those with enrollments of 1,500, 5.4 per cent admit upon this basis. Of the State universities, 7.5 per cent have accepted this revision of old standards. In the regions covered by the North Central Association, 12 per cent of the colleges admit upon the 12-unit basis; in the northeastern and northwestern territories, 2.9 per cent and 3.2 per cent, respectively, and in southern territory, 7.8 per cent. Of the colleges in the territory of the North Central Association, 83.4 per cent approve the idea upon condition that the plan secures general acceptance. On the other hand, in the northeastern territory, only 58.3 per cent are willing to make the change under the same condition. If this plan should become generally effective, it will imply an extensive reconsideration of methods and relationships both in the secondary and the college fields.

Quite apart from the provisions made to care for the gifted student, there is apparent an increased tendency to make administrative and curriculum adjustments which tend to encourage concentration of time and effort. The University of California, for instance, plans considerable restriction in the number of courses open to freshmen. Miami University has readjusted its plan for grouping subjects and requirements in order to secure greater concentration. The comprehensive examination is rapidly being substituted for piece-meal and dispersed passing of courses and tests. At Yale the traditional year system has been abolished in the school of medicine. Students are enrolled both in the graduate school and in the school of medicine. This is true, although traditionally three years' college work are required for admission to the medical college, while four years are required for admission to the graduate school. The student selects the sequence of his studies with the advice of his instructors upon the basis of his previous work and the purposes he has in view. When he finishes his preclinical work he may continue and secure his M. D. or he may branch off into specialties leading to the Ph. D. In neither case is it necessary that he secure a bachelor's degree.

Full significance of the Johns Hopkins proposal to eliminate two years has not been fully realized in educational discussions. The plan

is applied in senior college work to those who intend to specialize rather than to go ahead in the regular way to the first degree. Such students need only satisfy the professor that they are qualified for advanced work. Their programs are then outlined by the professors. "No arithmetical system of credits shall be applied; and each department shall determine the character of the work required—lectures, conferences, reading, laboratory, etc." Those who decide to specialize may become at once candidates for the masters' and doctors' degrees. The minimum time requirement for the master's is three years of university work and residence; and for the Ph. D., four years of work and residence.

Johns Hopkins is also breaking down formality and mechanical requirements in the undergraduate department. In the college of arts and sciences reading courses under the supervision of an instructor are offered in eight departments, and 21 students are pursuing these courses. In addition, 19 undergraduate students have been permitted to take graduate courses with most satisfactory results. Something of the same process has been tried by the economics department in the University of Michigan. Six hours of credit are allowed for a reading course open to selected students. The plan is described as follows:

It is the purpose of the department of economics to encourage these students to browse widely in books, classrooms, professors' studies, and the rooms of other students (rather than to adopt intensive graduate school methods of study and research), to reflect upon their reading and experience through informal discussion, and to coordinate their various lines of interest and competence. * * *

At the end of each semester every member of the group will submit a paper telling in his own way what he has done in the time thus made available and describing his reaction to his reading and experience.

CONCLUSION

The foregoing review, covering the biennium 1924-26, shows that higher education in the United States is in a state of flux.

The imperative necessity for higher education to readjust itself to the social and economic structure of the Nation is receiving attention, but scientific study and research, now so generally given to details of methods and procedures in higher institutions, are little used in defining the larger objectives and relationships of institutional service. In general, higher education is receptive to changes in method, in content, and in procedure, but little evidence exists of the development of general educational philosophies to which specific problems may be related.